SUPSHIP Operations Manual

2008 Edition

(Through Change #14 of 28 August, 2015)

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Table of Contents and Effective Pages

(Through change #14 of 28 Aug 2015)

Contents	Revision Date	Page Numbers
Table of Contents and Effective Pages	8/18/2015	1
SOM Change Record	8/18/2015	3
Promulgation letter	9/29/2008	5-6
Preface	8/18/2015	7-12
Ch 1 - Mission and Organization	8/18/2015	13-58
Ch 2 - Standards of Conduct and Managers' Internal Control Program	8/18/2015	59-100
Ch 3 - Contracting and Contract Administration	8/18/2015	101-222
Ch 4 - Financial Management	8/18/2015	223-250
Ch 5 - Project Oversight	8/18/2015	251-392
Ch 6 - Cost Estimating	8/18/2015	393-416
Ch 7 - Earned Value Management	8/18/2015	417-470
Ch 8 - Engineering and Technical Oversight	8/28/2015	471-512
Ch 9 - Contract Administration Quality Assurance Program	8/18/2015	513-556
Ch 10 - Test, Trials and Delivery	8/18/2015	557-598
Ch 11 - Property Administration	8/18/2015	599-610
Ch 12 - Environmental, Safety, and Health	8/18/2015	611-622
Ch 13 - Security	8/18/2015	623-634
Ch 14 - Integrated Logistics Support	8/18/2015	635-674
Ch 15 - FOIA and Public Affairs Media Queries	8/18/2015	675-682

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SOM Change Record

(Minor changes to correct hyperlinks and typographical errors are not included in the Change Record)

Change Number	Change Date	Chapter	Activity Review	Change Level	Synopsis of Change/Comments	Approval Authority	Approval Date	Approval Authority Digital Signature
1	5-May-09	9	SEA04Z, SUPSHIPs	Intermediate	Doc. Review, Procedure Eval., Audit Periodicity, Corrective Action, and Appendices 9-A and 9-C.	04ZB	5-May-09	KNOWLES.DOUGLAS.B.1229614785 Digitally signed by KNOWLES.DOUGLAS.B.1229614785 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USN, cn=KNOWLES.DOUGLAS.B.1229614785 Date: 2013.06.11 08:48:31 -04'00'
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DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
1333 ISAAC HULL AVE SE
WASHINGTON NAVY YARD DC 20376-0001

IN REPLY TO:

5000
Ser 04Z/091
29 Sep 08

From: Commander, Naval Sea Systems Command

Subj : SUPSHIP OPERATIONS MANUAL (SOM)

Ref: (a) SUPSHIP Operations Manual (SOM) Rev 1 (S0300-B2-MAN-01A), 1999
(b) Standard Supervisor of Shipbuilding, Conversion and Repair Organization Manual (NAVSEA 0900-LP-098-0010 of Apr 78)
(c) Joint Fleet Maintenance Manual
(d) NAVSEAINST 5040.36A of 16 Jun 08

1. This letter issues Revision 2 of the SUPSHIP Operations Manual (SOM) and cancels reference (a). The rewrite of the SOM incorporates and updates the contents of the Standard SUPSHIP Organization Manual, reference (b), which is hereby canceled.

2. Reference (a) was issued for the Supervisors of Shipbuilding, Conversion and Repair, U.S. Navy, as a guide in the administration of ship construction and ship repair contracts. Much has changed since the SOM was issued in 1999. In order to support the new role of the RMCs, NAVSEA incorporated the ship repair contract topics into a Volume VII (Contracted Ship Maintenance) of reference (c). This issuance of the SOM reflects the updated mission of the SUPSHIPs to administer ship construction and ship repair contracts, as promulgated in reference (d).

3. The SOM reflects a complete rewrite of the 1999 edition. It is developed for online use with no printed documents planned for distribution. Over 900 hyperlinks have been included to permit immediate review of all electronically available source documents. The SOM will be available through an access link on the SUPSHIP website (http://www.supship.navy.mil). It is anticipated that the document will soon be approved for public release via Distribution Statement "A". All requested updates to the SOM will be tracked and adjudicated by SEA04Z via Mr. Dan Herzer (daniel.herzer@navy.mil) or by contacting him at (202) 781-3375.

M. A. HUGEL

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(See page 2)

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	FKM14	NAVICP
	FKM11	FISC
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Preface

P-1 Purpose

The SUPSHIP Operation Manual (SOM) describes the mission, functions, responsibilities, organizational structure, and common business operations of the Supervisors of Shipbuilding, Conversion and Repair (SUPSHIPs). It also describes the relationship between SUPSHIPs and the other activities that interact with the SUPSHIPs. It is primarily intended for use as an online, quick-reference desk guide, and to the maximum extent possible, hyperlinks have been created to enable the user to open referenced documents or other websites that provide supplemental information. Any administrative and program management policies or directions that need to be addressed should be submitted to the Director, SUPSHIP Management (NAVSEA 04Z).

P-2 Scope

The SOM describes the activities of NAVSEA and other Government agencies involved in the placement and administration of vessel acquisition contracts. The manual discusses required planning and scheduling functions prior to procurement action, emphasizes the procurement process from the initiation of requirements through and during contract award, and discusses the CAS functions and responsibilities of the SUPSHIPs in providing oversight of the contractor performance.

SUPSHIP organizations may establish local directives and practices to meet conditions and situations unique to a particular geographical locale or to individual contract requirements. Only deviations from departmental structure require NAVSEA 04Z's approval.

The command and departmental functions specified in the Standard Supervisor of Shipbuilding, Conversion and Repair Organization Manual (NAVSEA 0900-LP-098-0010 of April, 1978) have been incorporated into Chapter 1 of this manual. For this reason, the Standard SUPSHIP Organization Manual is hereby canceled.

P-3 Writing Guidelines and Conventions

This manual has been written following the standards, style and writing guidelines established by:

- Navy Directives Issuance System (OPNAVINST 5215.17)
- Government Printing Office Style Manual
- Navy Correspondence Manual (SECNAV M-5216.5 (June 2015))
- Chicago Manual of Style

Conventions

1. References.

    a. References are cited by their alphabetic listing, i.e., reference (a), only on their first appearance in a chapter. Subsequent citations are made by the reference's title (e.g., Federal Acquisition Regulations), common abbreviated title (FAR), or by instruction number (NAVSEA 5450.36B).

    b. Reference citations are made to the specific revision identifier or date of the reference rather than to the reference "series." This is done to correlate the content of the SOM with specific source documents and facilitate updating the SOM as newer versions of source documents are released.

2. Hyperlinks

    a. Wherever possible, hyperlinks (identified by blue underlined text) have been created to enable the reader to readily link to internet-available source documents or to other sections of the SOM.

    b. Hyperlinks to commercial documents (e.g., ANSI/EIA, ISO) will take the reader to the commercial sources for ordering those documents.

3. Terminology

    a. The term "Supervisor," when capitalized, refers to the individual in command of a Supervisor of Shipbuilding, Conversion and Repair.

    b. The term "Headquarters," when capitalized, refers to Naval Sea Systems Command headquarters.

P-4 Limitations

a. Commanding Officer Authority: In accordance with U.S. Navy Regulations, the Supervisor, as the SUPSHIP commanding officer, retains full responsibility for the safe, effective and efficient execution of the SUPSHIP mission. The content of this manual should not be construed to abrogate those responsibilities in any way.

b. Acquisition Policy: The SOM does not establish acquisition policy. It does provide a description of basic procedures, practices, and techniques to be used in conjunction with the Federal Acquisition Regulation (FAR), the Department of Defense FAR Supplement (DFARS), the Navy and Marine Corp Acquisition Regulation Supplement (NMCARS), the NAVSEA Contracts Handbook (NCH), and implementing instructions and memoranda.

c. Field Administration: Unless specifically addressed otherwise, the SUPSHIP requirements addressed in this manual are considered to fall within the scope of the SUPSHIP mission as defined in Chapter 1.

P-5 Access to the SOM

The SOM is available as an online document at the SOM home page (http://www.navsea.navy.mil/Home/SUPSHIP/SUPSHIPOperationsManual.aspx). This website also permits downloading the entire SOM and individual SOM chapter files in PDF format for offline use

P-6 Recommended Changes to the SOM

The SUPSHIP Management Group (NAVSEA 04Z) is the point of contact for all proposed changes to the SOM and retains final editing authority for updating SOM content. The preferred method for submitting comments and proposed changes is by e-mail to the SOM Manager, Dan Herzer, at Daniel.herzer@navy.mil.

P-7 Administration and Maintenance of the SOM

The SOM Maintenance Addendum has been developed to maintain the SOM as a “living” document; a manual that is current with the latest directives and one that users can rely upon for accurate information. This plan provides for:

- maintenance of both the SOM document and the SOM webpage
- establishment of a semi-annual review and revision cycle
- a detailed process for reviewing, approving and incorporating changes
- classification of changes as Minor, Intermediate and Major, with the approval authority determined by the classification of the change
- scheduled reviews of SOM references and hyperlinks

The SOM Maintenance Addendum is available for viewing on the SOM webpage.

Appendix P-1: User Activity Comment Sheet

Users are encouraged to recommend changes to the SOM, whether those changes are to correct typographical errors, revise the text or graphics, or to suggest additional or expanded coverage of a particular topic. In all cases, suggested changes should provide sufficient information to enable NAVSEA 04Z to implement the change, including:

Location of change:

SOM page number:

Paragraph/figure/appendix number:

Nature of Change: (Background information regarding the reason for the proposed change, including a list of sections of the SOM that will be affected by the change.)

Source, reference, or authority for change:

Recommended wording for change:

Contact information for individual submitting change:

Name:

Activity/code:

Phone number:

E-mail address:

Preface Acronyms

ANSI/EIA	American National Standards Institute/Electronic Industries Alliance
CAS	Contract Administration Services
DFARS	Department of Defense Acquisition Regulations Supplement
FAR	Federal Acquisition Regulations
ISO	International Standards Organization
NAVSEA	Naval Sea Systems Command
NCH	NAVSEA Contracts Handbook
NMCARS	Navy and Marine Corps Acquisition Regulations Supplement
OPNAVINST	Chief of Naval Operations Instruction
SECNAVINST	Secretary of Navy Instruction
SOM	SUPSHIP Operations Manual
SUPSHIPs	Supervisors of Shipbuilding, Conversion and Repair, USN

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Chapter 1 – SUPSHIP Mission and Organization

Table of Contents

1.1 SUPSHIP Mission, Functions, and Organizational Relationships 1-4
1.1.1 General 1-4
1.1.2 SUPSHIP Mission 1-4
1.1.3 SUPSHIP Functions and Tasks 1-4
1.1.4 Standard SUPSHIP Organization 1-5
1.1.5 SUPSHIP Detachments, On-Site Offices and Project Management Offices 1-6
1.1.5.1 SUPSHIP Detachment 1-6
1.1.5.2 On-Site Office 1-6
1.1.5.3 Project Management Office 1-6
1.1.6 SUPSHIP Council 1-7
1.1.7 SUPSHIP Board of Directors (BOD) 1-7
1.1.8 Standard SUPSHIP Organization - Functional Descriptions by Department 1-7
1.1.8.1 Command and Administration Staff 1-7
1.1.8.1.1 Supervisor of Shipbuilding, Conversion and Repair 1-7
1.1.8.1.2 Deputy Supervisor 1-8
1.1.8.1.3 Project Office 1-8
1.1.8.1.4 Counsel 1-9
1.1.8.1.5 Manager for Environmental, Safety, and Health (ESH) 1-10
1.1.8.1.6 Security Officer 1-10
1.1.8.1.7 Deputy EEO Officer 1-11
1.1.8.1.8 Civilian Personnel Office 1-11
1.1.8.1.9 Business Review Staff 1-12
1.1.8.1.10 Command Evaluation and Review Staff 1-13
1.1.8.1.11 Personnel Management Staff 1-14
1.1.8.1.12 Administrative Services Staff 1-14
1.1.8.2 Engineering Department 1-15
1.1.8.3 Quality Assurance (QA) Department 1-16
1.1.8.3.1 Nuclear QA 1-17
1.1.8.3.2 Assurance Engineering 1-17
1.1.8.3.3 Process Control 1-18
1.1.8.3.4 QA Procurement 1-18
1.1.8.3.5 Project Quality Assurance Managers 1-19
1.1.8.4 Contracts Department 1-19
1.1.8.4.1 Procurement 1-19
1.1.8.4.2 Contract Administration 1-20
1.1.8.4.3 Proposal Evaluation 1-21
1.1.8.5 Budget and Finance Department 1-21

1.2 U.S. Navy New Construction – Acquisition Organizational Relationships 1-22
1.2.1 General 1-22
1.2.2 Secretary of the Navy 1-22

1.2.3 Assistant Secretary of the Navy (ASN), Research, Development and Acquisition (RD&A) 1-22
1.2.4 Chief of Naval Operations (CNO) 1-23
1.2.5 Systems Commands (SYSCOMs) 1-24
1.2.6 Naval Sea Systems Command (NAVSEA) 1-24
1.2.7 Deputy Commander, Nuclear Propulsion Directorate NAVSEA 08/Director of Naval Nuclear Propulsion Program 1-25
1.2.8 Program Executive Office (PEO)/Program Offices 1-26
1.2.9 Logistics, Maintenance and Industrial Operations Directorate (NAVSEA 04) 1-26
1.2.10 Director, SUPSHIP Management Group (NAVSEA 04Z) 1-26

1.3 Additional Organizations in Navy Acquisition Programs 1-27
1.3.1 The Atlantic and Pacific Fleets 1-27
1.3.2 Type Commanders (TYCOMs) 1-28
1.3.3 Naval Supervising Activities (NSAs) 1-28
1.3.3.1 Naval Shipyards (NSYs) 1-29
1.3.3.2 Regional Maintenance Centers (RMCs) 1-29
1.3.4 Submarine Maintenance Engineering Planning and Procurement (SUBMEPP) 1-30
1.3.5 NAVSEA Shipbuilding Support Office (NAVSHIPSO) 1-30
1.3.6 Naval Inactive Ship Maintenance Facilities (INACTSHIPFAC) 1-30
1.3.7 Defense Finance and Accounting Service (DFAS) Offices 1-31
1.3.8 Defense Contract Audit Agency (DCAA) 1-31
1.3.9 Defense Contract Management Agency (DCMA) - Components 1-31
1.3.10 Military Sealift Command (MSC) 1-32
1.3.11 Agencies Influencing Design Considerations 1-32
1.3.12 Government Accountability Office (GAO) 1-33
1.3.13 Foreign Governments 1-33
1.3.14 Private Companies - Demilitarizing and Stripping 1-33

Appendix 1-A: SUPSHIP Bath Organization Chart 1-34

Appendix 1-B: SUPSHIP Groton Organization Chart 1-35

Appendix 1-C: SUPSHIP Gulf Coast Organization Chart 1-36

Appendix 1-D: SUPSHIP Newport News Organization Chart 1-37

Appendix 1-E: Simplified Navy Organization Chart 1-38

Appendix 1-F: NAVSEA Organization 1-39

Appendix 1-G: NAVSEA 04 Organization Chart 1-40

Appendix 1-H: Acronyms 1-41

References

(a) NAVSEAINST 5450.36B, Mission, Tasks, and Functions of the Supervisors of Shipbuilding, Conversion, and Repair

(b) NAVSEAINST 5450.28F, NAVSEA Shore Activities and Detachments; Establishment, Disestablishment, or Modification

(c) U.S. Navy Regulations

(d) Federal Acquisition Regulations (FAR)

(e) DoD Directive 5000.1, Defense Acquisition System

(f) DoDINST 5000.2, Operation of the Defense Acquisition System

(g) SECNAVINST 5400.15C, Department of the Navy Research and Development, Acquisition, Associated Life Cycle Management, and Logistics Responsibilities and Accountability

(h) Fleet Modernization Program (FMP) Manual, SL720-AA-MAN-010 & 20

(i) OPNAVINST 4700.7L, Maintenance Policy for U.S. Naval Ships

(j) Joint Fleet Maintenance Manual (JFMM), COMFLTFORCOMINST 4790.3

(k) NAVSEAINST 5730.1E, Legislative and Congressional Matters

(l) NAVSEAINST 7500.1B, Audits of NAVSEA by External Audit Organizations (EAOS)

Figures

Figure 1-1. Typical SUPSHIP Organization 1-5

Figure 1-2. SUPSHIP Management Group (NAVSEA 04Z) 1-27

Chapter 1 – SUPSHIP Mission and Organization

1.1 SUPSHIP Mission, Functions, and Organizational Relationships

1.1.1 General

The Supervisors of Shipbuilding, Conversion and Repair (SUPSHIPs) are echelon 3 shore commands reporting to Commander, Naval Sea Systems Command (NAVSEA).

1.1.2 SUPSHIP Mission

As detailed in NAVSEAINST 5450.36B, reference (a), the mission of the SUPSHIPs is to administer and manage execution of Department of Defense (DoD) contracts awarded to assigned commercial entities in the shipbuilding and ship repair industry.

1.1.3 SUPSHIP Functions and Tasks

SUPSHIPs are responsible for the following functions and tasks:

a. Serve as DoD's designated Contract Administration Office (CAO) responsible for performing Contract Administration Services (CAS) for all DoD contracts awarded to assigned contractors.

b. Enforce contract requirements, ensuring contractors and the government satisfy their contractual obligations.

c. Work with contractors and government activities to facilitate greater quality and economy in the products and services being procured.

d. Manage the complexities and unique demands of ship construction and nuclear ship repair projects by performing the following non-CAS functions for Navy Program Executives Officers (PEOs), the Fleet, and NAVSEA headquarters:

   (1) Project Management: Coordinate response to non-contractual emergent problems; coordinate activities of Pre-Commissioning Crews, Ship's Force and other government activities; communicate with customers and higher authority regarding matters that may impact project execution.

   (2) Technical Authority: Serve as NAVSEA's waterfront Technical Authority responsible for providing government direction and coordination in the resolution of technical issues.

   (3) Contract Planning and Procurement: Participate in acquisition planning and assessment of contractor qualifications.

e. Apply a standard methodology for determining overall physical progress of Navy Ships under contract.

f. For each shipbuilding program, apply risk assessment methodology for determining the allocation and effective mix of SUPSHIP resources.

1.1.4 Standard SUPSHIP Organization

SUPSHIPs are field activities of NAVSEA, operating under the direction of the Deputy Commander, Logistics, Maintenance and Industrial Operations (NAVSEA 04). Policy, guidance, and resourcing is provided by Director, SUPSHIP Management Group (NAVSEA 04Z).

Figure 1-1 illustrates the typical SUPSHIP organization. An organization chart for each SUPSHIP is provided as Appendices 1-A (Bath), 1-B (Groton), 1-C (Gulf Coast), and 1-D (Newport News). Deviations in the organization structure above the division level must be submitted to NAVSEA 04Z for approval; changes below the department level do not require NAVSEA 04Z approval. The SUPSHIP must maintain a current copy of the local organization manual and provide subsequent changes to NAVSEA 04Z that include a detailed organization chart for each department down to the division level. Double billeting of personnel is permitted and should be used to meet specific operating conditions within existing personnel allowances and budgets. The duties of an absent department head or office head will be performed by the officer or civilian designated by the department or office head.

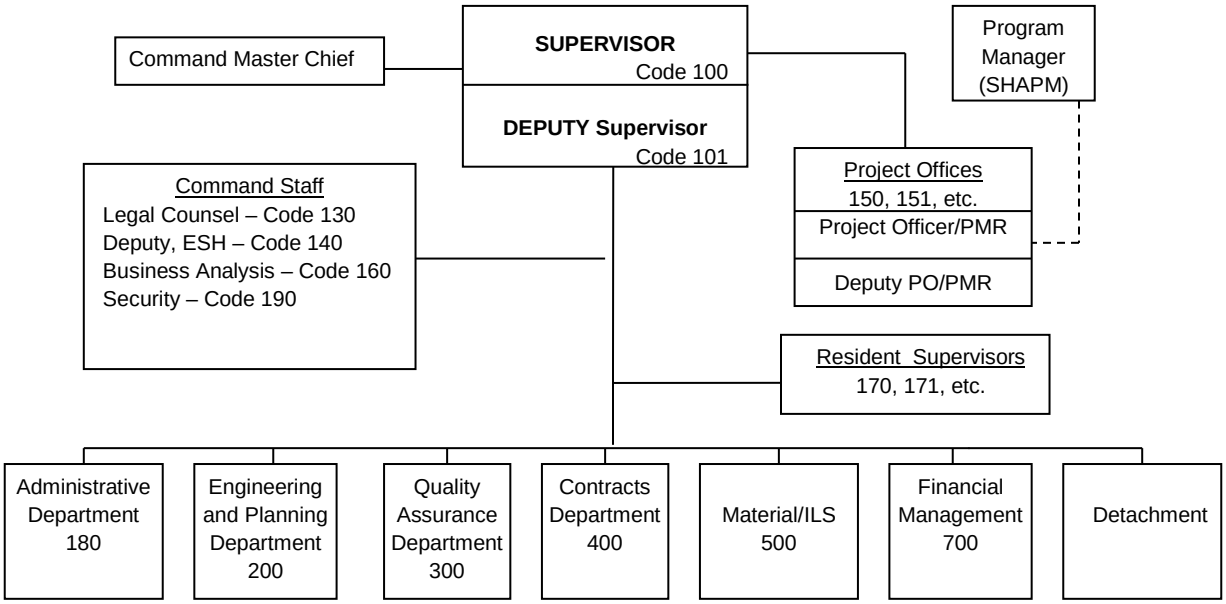


Figure 1-1. Typical SUPSHIP Organization

1.1.5 SUPSHIP Detachments, On-Site Offices and Project Management Offices

1.1.5.1 SUPSHIP Detachment

A detachment is established in an outlying private shipyard or in a geographic area where the workload warrants local performance of specific functions that may include contractual, design, inspection, administrative or coordinating functions. A detachment is established and disestablished in accordance with the requirements of reference (b), NAVSEAINST 5450.28F, NAVSEA Shore Activities and Detachments; Establishment, Disestablishment, or Modification. When a Supervisor desires to establish or disestablish a detachment, the supporting documentation required by the governing instruction must be provided to NAVSEA 04Z. A detachment within NAVSEA is designated as a Category 1 or Category 2 detachment based on the specific traits of the organization as outlined in the above NAVSEA instruction. The detachment typically has 100 or less full-time permanently assigned personnel, an Officer in Charge may be assigned, and the activity may be listed in the Standard Navy Distribution List (SNDL).

The organization of a detachment generally parallels the standard organization of the SUPSHIP for those functions that can be performed more effectively and economically at the detachment's location. The Supervisor will determine the functions that should be assigned to the detachment. Detachments may be authorized to correspond directly with NAVSEA and contractors on matters relating to assigned responsibilities only when authorized in writing by the Supervisor.

1.1.5.2 On-Site Office

The term "on-site office" is used within NAVSEA to identify a small remotely located element that is established for the purpose of improving organizational efficiency. The Supervisor will recommend establishment of an on-site office using the criteria outlined in NAVSEAINST 5450.28F. Typically, an on-site office will consist of either 1 to 10 full-time permanently assigned personnel, or with 11 – 50 full-time permanently assigned personnel, and the office is expected to exist no more than 48 months.

1.1.5.3 Project Management Office

The Supervisor may establish a project management office that does not require compliance with NAVSEAINST 5450.28F. This office will normally be located at a commercial shipyard or contractor's facility under the cognizance of the SUPSHIP that has been assigned as the Administrative Contracting Office (ACO) or when the SUPSHIP is required to perform contract administration as a component of the overarching DOD/DCMA Contract Administration Service (CAS) organization. They are established when a contractor's worksite is too far from the main SUPSHIP offices to be economically supported. The office will be staffed to perform the management, inspection, and related functions associated with SUPSHIP's assigned contract administration functions. Authority to send or receive formal correspondence must be specifically approved by the Supervisor.

1.1.6 SUPSHIP Council

The SUPSHIP Council is chartered by NAVSEA to forge a partnership between PEOs and NAVSEA 04, to foster an open and honest exchange of ideas and concerns relative to SUPSHIPs, and to provide a forum where the PEOs can provide advice and advocacy in support of the SUPSHIPs. NAVSEA 04 chairs the council meetings with support provided by NAVSEA 04Z. Membership includes representatives from PEO Ships, PEO Subs, and PEO Carriers.

1.1.7 SUPSHIP Board of Directors (BOD)

The SUPSHIP Board of Directors is comprised of the Supervisors from each SUPSHIP, NAVSEA 04Z, and is chaired by NAVSEA 04. The purpose of the meetings is to address topics of common interest to the SUPSHIP enterprise and to support strategic planning initiatives. Subject matter experts and other NAVSEA or SUPSHIP representatives may be invited on an ad hoc basis to address topics of interest as called out in the pre-meeting agenda.

A video teleconference (VTC) is conducted each month with NAVSEA 04Z and the SUPSHIP Supervisors and Deputies to provide “quick look” updates and make operational decisions.

1.1.8 Standard SUPSHIP Organization - Functional Descriptions by Department

This section presents a generic SUPSHIP organization and addresses those functions that typically comprise SUPSHIP staffing. Organizational structure may vary, however, and as identified in sections 1.1.4, 1.1.5 and Chapter 4, Supervisors have some discretion in utilizing authorized end strength and Full Time Equivalent (FTE) employee manning controls to structure an organization that best supports the mission of the command and its assigned workload.

1.1.8.1 Command and Administration Staff

1.1.8.1.1 Supervisor of Shipbuilding, Conversion and Repair

U.S. Navy Regulations, reference (c), imposes responsibilities and grants authorities to commanding officers. As a commanding officer, the Supervisor is accountable for executing these responsibilities, in addition to ensuring the proper execution of the SUPSHIP mission. Typical duties include:

1. Administering Department of the Navy and other Department of Defense shipbuilding, design, conversion, and facility contracts at assigned private shipyards.

2. When authorized by NAVSEA 02, procuring and administering modernizations, refits, major repairs, activations, and inactivations performed on naval vessels at assigned private shipyards.

3. Performing Contract Administration Services (CAS) for all Department of Defense contracts awarded to contractors when assigned by Defense Contract Management Agency (DCMA) in accordance with the Federal Directory of Contract Administration Components directing plant cognizance oversight.

4. Carrying out prescribed mobilization logistic planning functions.

5. Providing technical guidance in the above matters, as requested, to all naval activities in the naval region, to the area coordinator, and to the Military Sealift Command (MSC).

6. Assuring timely submission of special interest Situation Reports (SITREPS) and Bell Ringers that report on high interest issues, VIP visits, or activity that may create news media inquiries.

7. Performing other tasks as directed by NAVSEA 04/04Z.

1.1.8.1.2 Deputy Supervisor

The Deputy Supervisor is responsible to the Supervisor for overall coordination and direction of the business operations of the office. Typical duties include:

1. Representing the Supervisor in dealing with contractors, ship's force, Type Commanders (TYCOMs), area coordinators, NAVSEA, and other organizations.

2. Participating in strategic planning for the command and SUPSHIP enterprise.

3. Coordinating and directing, as appropriate, the activities of the Project Offices, other staff offices, and departments of the office so as to ensure consistency of decisions, methods of operations, and distribution of effort within the organization.

4. Acting as the Supervisor in the absence of the Supervisor.

5. Performing other duties in connection with the SUPSHIP function as directed by the Supervisor.

1.1.8.1.3 Project Office

The primary function of a Project Office is the overall coordination of SUPSHIP activity with respect to an assigned project. Project Offices are normally established for each major new construction program and may be established for CNO-assigned complex modernization or refit availabilities. The Project Office is staffed by personnel assigned by the Supervisor, and will typically include personnel from business review, engineering, quality assurance, contracts, and material departments. Military assistants may also be assigned. The Project Office should ideally be located at the contractor's worksite. To the maximum possible, personnel assigned to the project should be physically located within the Project Office.

The Project Officer is administratively assigned to the SUPSHIP and reports directly to the Supervisor. The Project Officer, through a matrix organizational relationship, tasks the

functional organization through the functional managers by identifying requirements and setting priorities. The functional organization retains responsibility for the technical adequacy and timeliness of the work. The Project Officer may be double billeted as the Program Manager Representative (PMR) reporting directly to the Program Manager (PM) in addition to the Supervisor.

The primary duty of the Project Officer is to act as the on-site representative of the Supervisor. A detailed discussion of the Project Management organization is contained in Chapter 5 and usually includes the following duties:

1. Functioning as the primary SUPSHIP point of contact on all matters regarding the assigned project.

2. Focusing management attention on problems, bringing unresolved problems to the attention of the Supervisor and PM, and coordinating SUPSHIP corrective action.

3. Coordinating the exchange of correspondence and information between the contractor and the government.

4. Providing SUPSHIP representation at all meetings pertaining to the assigned project.

5. Processing all proposed or approved changes, including Engineering Change Proposals (ECP) and INSURV Trial Cards.

6. Coordinating the preparation of correspondence and reports relative to the assigned project.

7. Establishing procedures for the coordination of the ship's testing program, trials, and INSURV.

8. Coordinating the development of procedures for monitoring, reviewing, and approving data prepared in support of the assigned project.

9. Monitoring progress in accordance with the SUPSHIP developed physical progressing measurement plan and the contractor's Earned Value Management System (EVMS).

10. Coordinating the activities of the Pre-Commissioning Unit (PCU).

11. Preparing reports as required by NAVSEA and the PM on the current status of the assigned project.

12. As directed by NAVSEA, coordinating delivery of the vessel and the signing of Defense Form DD-250, Material Inspection and Receiving Report.

1.1.8.1.4 Counsel

The primary function of the Counsel is to provide legal advice and services to the Supervisor. The Counsel is assigned to a SUPSHIP office by the NAVSEA Office of Counsel (NAVSEA

00L) and is under the management control of that office. A full-time Counsel is assigned to SUPSHIPS. Typical duties are:

1. Providing legal review and advice to all activity personnel on procurement matters.

2. Reviewing, drafting, and interpreting legal documents.

3. Participating in the investigation and settlement of claims.

4. Coordinating the standards of conduct program.

5. Acting as the Supervisor's counsel before all boards, commissions, and courts at hearings inquiring into his/her official duties and actions.

1.1.8.1.5 Manager for Environmental, Safety, and Health (ESH)

Chapter 12 addresses the SUPSHIP ESH duties and responsibilities in more detail. The primary functions and responsibilities of the Deputy for Environmental, Safety, and Health (ESH), if these functions are combined, include:

1. Providing advice and guidance to the Supervisor and serve as SUPSHIP's single point of contact on all environmental, safety, and health matters.

2. Administering and coordinating the SUPSHIP ESH Program and internal policies in accordance with pertinent NAVSEA Instructions (NAVSEAINSTs) as outlined in Chapter 12, ESH.

3. Evaluating the contractor’s ESH and fire protection programs for contractual compliance and its effect on Navy workplaces.

4. Developing and maintaining internal instructions defining ESH responsibilities and rights of SUPSHIP personnel.

5. Serving as the point of contact for all State and Federal Environmental Compliance and Occupational Safety and Health Administration (OSHA) officials’ visits to Navy workplaces at the contractor's facility, and acting as a representative of the Supervisor on committees established by the Regional Commander.

1.1.8.1.6 Security Officer

This function is addressed in greater detail in Chapter 13. The Security Officer functions shall be assigned only to a fully-qualified security officer designated in writing and accountable to the Supervisor. The function shall be assigned as the primary duty and other duties may be assigned as additional duties. The assigned Security Officer will administer the SUPSHIP security program as outlined in Chapter 13. Duties include:

1. Conducting formal evaluations of the contractor’s physical security and force protection programs when required by contract.

2. Maintaining visitor control within the SUPSHIP facilities.

3. Implementing emergency disaster control procedures and coordinating Heavy Weather Planning and Evacuation Plans and industrial mobilization plans.

4. Coordinating with the Deputy for ESH on security aspects of all State or Department of Labor OSHA inspections of contractor workplaces.

1.1.8.1.7 Deputy EEO Officer

The primary function of the Deputy Equal Employment Opportunity (EEO) Officer is to be the principal advisor and consultant to the Supervisor on EEO matters. All SUPSHIP offices with 100 or more civilian personnel must have a Deputy EEO Officer, but those with less than 500 personnel may assign the function as collateral duty to an assigned civilian employee. Typical duties are:

1. Serving as advisor and consultant on EEO matters to the Supervisor, Federal Women's Program Coordinator, Spanish Speaking Program Coordinator, EEO Committee Chairman, and EEO Counselors.

2. Developing command policy, instructions, and notices on all aspects of the EEO program and the annual Affirmative Action Plan.

3. Representing the Supervisor at meetings and conferences pertaining to EEO.

4. Participating in the development of EEO training for supervisors and EEO committee members, and the development of the upward mobility and summer employment programs.

5. Participating in the Position Management Program.

1.1.8.1.8 Civilian Personnel Office

The primary function of the Civilian Personnel Office is to serve as the principal advisor to the Supervisor in the field of civilian personnel management. In cases where civilian personnel services are provided by an outside support activity and in cases where a Deputy Supervisor is assigned, the Civilian Personnel Office shall be a staff office. Some civilian personnel duties may be assigned to the Administration Department. In other cases, the Administration Department may be assigned the total function. Typical duties are:

1. Providing advice and guidance to supervisors and employees on civilian personnel matters that include the advertisement for job opportunities and employment of personnel.

2. Planning, organizing, and managing all aspects of employment, employee relations, employee services, employee training, wages, and classification.

1.1.8.1.9 Business Review Staff

The primary function of the Business Review Staff/Command Evaluation and Review Office is to provide advice and specialized services to the Supervisor in the areas of business review, management controls, financial management, contract involvement, industrial engineering, and management information systems. The Business Review/Command Evaluation and Review Office may perform functions which cut across departmental lines or are beyond the capability of the department that would normally perform the function. Any function requiring special attention may be shifted from the functional organization and temporarily assigned to the Business Review Staff/Command Evaluation and Review Office for development and initial implementation. The function is then returned to the functional organization for long term execution. Typical duties are:

1. Reviewing contractor's financial management structure, methods, and administration of Cost Accounting Standards.

2. Operating and maintaining the SUPSHIP Management Information Center, if established.

3. Reviewing contactor's management structure, methods, and administration, as well as reviewing and analyzing contractor performance trends.

4. Validating the contractor's Earned Value Management System (EVMS) as discussed in Chapter 7.

5. Evaluating contractor cost and schedule performance.

6. Monitoring contractor costs and overhead elements.

7. Developing and maintaining a working relationship between the Defense Contract Audit Agency (DCAA) and other government activities to ensure that various audits and reviews of the contractor's operation are conducted in a timely manner as part of an integrated plan to protect the interest of the Government.

8. Managing the claims prevention program.

9. Assisting the contract specialist, contracting officer, claims team, or NAVSEA in resolving claims.

10. Providing technical advice to the Supervisor relative to business/management requirements and/or data which will affect cost, investment, or profit.

11. Assisting in conduct of pre-award surveys.

12. Coordinating management information systems requirements and Information Technology (IT) applications of these systems.

13. Developing SUPSHIP procedures for progressing, reviewing, approving, and consolidating progress determinations made by other organizational elements, as well as for a continuing evaluation of the total progress of each contract.

14. Preparing and analyzing internal (SUPSHIP) workload against the external (contractor) workload, determining resources required to accomplish that workload, identifying resources shortfall/excess, and evaluating ability to accomplish planned workload.

1.1.8.1.10 Command Evaluation and Review Staff

The primary function of the command evaluation and review staff is to conduct reviews, studies, analyses, or evaluations of the activity operations of the Supervisor. Although audit is not a stated mission of the Command Evaluation and Review function, the Supervisor may authorize the performance of audits when deemed appropriate. Typical duties include:

1. Preparing an annual evaluation and review plan for approval by the Supervisor and updating the plan when required.

2. Conducting special studies, reviews, analyses, evaluations, and investigations of activity operations as directed by the Supervisor or approved in the annual plan, and forwarding reports directly to the Supervisor.

3. Serving as the focal point and liaison for action related to audits, surveys, inspections, and reviews conducted by external audits and investigation agencies such as the Naval Audit Service, Government Accountability Office (GAO), Department of the Defense, Assistant Inspector General for Auditing, Naval Inspector General, and the NAVSEA Inspector General.

4. Overseeing and coordinating the management control program for the activity.

5. Following up on audit recommendations of internal and external organizations to ensure and document that action taken has corrected the deficiencies.

6. Administering the local fraud, waste and abuse hotline.

7. Conducting investigations, maintaining case files, preparing reports, and verifying that corrective actions are taken in cases of waste, fraud, inefficiencies, and related improprieties.

8. Validating all commercial activities studies that are not required to be validated by the Naval Audit Service.

9. Developing and supervising programs and procedures for verifying labor and material cost distribution.

10. Reviewing and evaluating the IT Programs to ensure adequacy of internal controls.

1.1.8.1.11 Personnel Management Staff

Duties of the Personnel Management Staff include:

1. Developing and preparing organizational charts and function statements.
2. Coordinating the Position Management program.
3. Conducting analyses of staffing, workload forecasts, and manpower utilization.
4. Maintaining an on-board count and statistics.
5. Maintaining civilian ceiling and high grade control.
6. Administering special personnel programs, such as Summer Youth, intern and cooperative education programs.
7. Administering military personnel matters.
8. Scheduling and making travel arrangements.
9. Coordinating the training program.
10. Administering the Incentive Awards program.
11. Administering the Public Affairs program.

1.1.8.1.12 Administrative Services Staff

The Administrative Services staff duties include:

1. Receiving and routing internal and external communications.
2. Maintaining a central correspondence, directives, and records file.
3. Providing centralized reproduction and printing services.
4. Performing paperwork management functions.
5. Preparing and maintaining property records for office equipment and providing for their maintenance and repair.
6. Providing activity labor and transportation services.
7. Coordinating use, care and maintenance of IT equipment.
8. Providing centralized clerical services.
9. Coordinating significant visits, clearance requests and special events.

1.1.8.2 Engineering Department

The primary function of the Engineering Department is to provide engineering, technical and design services. The Chief Engineer is a Technical Warrant holder and is accountable to NAVSEA 05 for the resolution of technical issues. Refer to SOM Chapter 8, Field Engineering Technical Authority, for a more detailed discussion. The SUPSHIP Engineering Department interfaces directly with naval architects and engineers in the contractor's design and building programs. In SUPSHIPs, where several very large new construction contracts and a significant workload are administered, a waterfront project engineering organization may be established.

The primary function of the Engineering Department can be further categorized into the following functions:

- engineering systems management
- naval architecture
- hull structure engineering
- mechanical and marine engineering
- electrical engineering
- combat systems planning
- engineering oversight of the contractual products including contract line items produced by the contractor‘s design and technical staff
- support for the SUPSHIP Waterfront Team

These Engineering Department functions can be achieved by:

1. Implementing the Configuration Management, Data Management, ILS, and Value Engineering programs.

2. Performing technical data quality assurance actions, including review and approval of Contract Data Requirements List.

3. Maintaining the technical library and plan files.

4. Reviewing and approving contractors' detailed drawings, manufacturers' drawings, technical manuals, and test memoranda.

5. Reviewing and evaluating all requests for deviations and waivers.

6. Supervising and directing the development and review of engineering specifications.

7. Performing engineering shipchecks.

8. Developing supplementary ship alteration drawings as appropriate.

9. Providing engineering and technical feasibility studies.

10. Evaluating and recommending action on contractors' or government agencies' proposed Engineering Change Proposals.

11. Conducting tests and inspections of equipment.

12. Coordinating the administration of field service engineers and technicians.

13. Assisting in the conduct of the pre-award and post-award surveys and conferences assessing contractor capabilities.

14. Conducting technical inspections during production processes in assigned engineering areas.

15. Performing quality assurance actions as required in accordance with SOM Chapter 9, Contract Administration Quality Assurance Program.

16. Participating in the planning and execution of shipboard tests and trials, including preparations for INSURV, and providing test results and certification of installations as required.

17. Evaluating the contractor technical performance and notifying NAVSEA of deficient areas.

18. Coordinating and monitoring planning, scheduling, and supply aspects of equipment/systems during the planning stage of a construction program or CNO-scheduled availability.

19. Coordinating and monitoring scheduling, supply, and production aspects of equipment/systems installation during the production phase.

20. Resolving waterfront technical issues arising from the hull/structure, propulsion, auxiliary systems, and combat systems tests and their interfaces.

21. Providing technical guidance and assistance to other SUPSHIP departments and divisions as related to engineering matters.

22. Providing technical support for the administration and correction of INSURV cards.

23. Serving as the point of contact for respective engineering discipline matters.

1.1.8.3 Quality Assurance (QA) Department

The primary function of the Quality Assurance (QA) Department is to provide assurance that the contractor is complying with the technical requirements of the contract, specifications, drawings, and military standards, and that the SUPSHIP departments are complying with mandatory directives. The Contract Administration Quality Assurance Program is addressed

in Chapter 9. Project Quality Assurance Managers may be assigned by ship type, ship class, or ship contract. The Project Quality Assurance Manager will be under the administrative supervision of the Project Officer and under the technical supervision of the Quality Assurance Officer. Typical divisions and duties within the QA department may include:

1.1.8.3.1 Nuclear QA

Responsible for:

1. Developing, coordinating, and auditing a systematic, comprehensive surveillance and inspection program for confirming the acceptability of the contractor's nuclear and SUBSAFE procedures and work products.

2. Assuring the overall acceptability of the contractor's systems for controlling the quality of nuclear work.

3. Establishing and maintaining aggressive and effective actions to assure contractor correction of specific defects and their underlying causes in nuclear work.

4. Reviewing and monitoring the contractor's performance of nondestructive testing (NDT) and inspections of nuclear work.

5. Auditing the contractor's nuclear procurement Quality Assurance Program.

6. Conducting nuclear quality assurance training.

7. Monitoring and auditing SUPSHIP departments to assure satisfactory review, evaluation, and verification of the contractor's nuclear work.

Note: The head of Nuclear QA has direct access to the Supervisor for nuclear quality assurance matters.

1.1.8.3.2 Assurance Engineering

Duties include:

1. Developing QA Department instructions, audit plans, and quality assurance management information methods.

2. Analyzing and determining the acceptability of the contractor's quality management program/inspection system, including surveillance per ISO 9000 Series and Quality Data Evaluation.

3. Monitoring and auditing SUPSHIP departments and contractor’s quality management programs and providing a statistical measure of conformance to SUPSHIP quality assurance policy.

4. Analyzing results of quality assurance actions, directing adjustment in monitoring levels by SUPSHIP personnel, and preparing appropriate management reports.

5. Developing and coordinating quality assurance indoctrination and training programs.

6. Investigating quality problems and recommending corrective action.

7. Coordinating the command's corrective action program.

Note: In those SUPSHIP QA offices which have personnel designated for nuclear oversight responsibilities, some of these functions may be performed by those personnel.

1.1.8.3.3 Process Control

Duties include:

1. Performing surveillance inspection of special processes, such as NDT and metal joining processes, to include objective quality evidence.

2. Monitoring the contractor's system for certifying and qualifying personnel, equipment, and procedures for special processes.

3. Performing evaluations of contractor’s process verification system in accordance with ISO 9000 in relation to Product Verification Inspections.

4. Assuring that SUPSHIP personnel performing nondestructive testing are properly trained and have been qualified and certified to perform the respective inspections.

5. Acting as the primary authority within the SUPSHIP for nondestructive testing and metal joining processes.

6. Coordinating and monitoring the actions of other departments for NDT and metal joining processes to assure that all areas and phases of these processes receive appropriate attention.

7. Reviewing contractor's welding and NDT testing procedures and test data.

Note: In the SUPSHIP QA offices which have personnel assigned for nuclear oversight requirements, some of these functions may be performed by those personnel.

1.1.8.3.4 QA Procurement

QA Procurement duties include:

1. Establishing and maintaining a Procurement Quality Assurance Program at the prime and subcontractor levels.

2. Planning, developing, implementing, and evaluating QA programs.

3. Designating Government Source Inspections at the subcontractor level.

4. Performing and overseeing receipt inspections in the prime contractor's plant.

5. Performing unsatisfactory material reporting.

6. Conducting/managing vendor evaluation audits, NAVSEA Unified Vendor Evaluation Program (NUVEP), and SUPSHIP vendor/subcontractor history programs.

7. Reviewing selected purchase orders to determine if the requisite quality requirements are invoked on the subcontractor.

8. Participating in selected and special product oriented surveys at the subcontractor level.

9. Where required, keeping the Nuclear QA office informed of matters related to nuclear procurement quality and assisting in audits of this area when requested.

Note: In some SUPSHIP QA offices a number of these functions may be performed by personnel responsible for nuclear oversight.

1.1.8.3.5 Project Quality Assurance Managers

Project quality assurance managers are responsible for:

1. Planning, developing, and directing the Quality Assurance Program on the assigned contracts. This includes the development of surveillance inspection plan, quality audits, procedure and technical review, procedure evaluation, product verification accept/reject criteria, sampling plans for quality data verification, standard attributes back-up data, and corrective action plan.

2. Determining resources required for the project assigned.

3. Supporting and responding directly to assigned project officers.

4. Providing project related quality data to personnel evaluating Assurance Engineering.

1.1.8.4 Contracts Department

The primary function of the Contracts Department is the procuring contract office (when directed) and contract administration services as a component of the DoD Contract Administration Service (CAS) organization. The procurement function may be combined with the contract administration functions as a best business practice. Typical divisions and duties within the divisions of the Contracts Department include:

1.1.8.4.1 Procurement

The Procurement Division is responsible for:

1. Accomplishing or assisting with procurement functions as directed by NAVSEA 02. This may include ship construction, modernization, refit, and major repair contracts, and entails participating in specification preparations, bid or proposal evaluations, DCAA audit coordination, pre-award surveys, business clearance evaluations, assessment of the contractor's Earned Value Management System (EVMS), and review of data in Contractor Performance Assessment Reporting System (CPARS).

2. Providing centralized contract documentation, preparation, and support services for all assigned procurements, and maintaining official contract files in accordance with Federal Acquisition Regulations (FAR) or subordinate directives.

3. Preparing and issuing reports for procurement actions.

4. Negotiating Forward Pricing Rate Agreements for application to change action initiated under contracts for construction, conversion, modernization, and repair of ships and submarines.

5. Monitoring contractor Small Business and Minority Business Enterprise programs.

1.1.8.4.2 Contract Administration

Contract Administration responsibilities include:

1. Administering all contractual aspects of assigned contracts in accordance with the FAR, reference (d), Part 42, and as discussed in Chapter 3, Contracting and Contract Administration.

2. Processing proposed Engineering Change Orders and Headquarters and Field Modification Requests (HMR, FMR) for new construction contracts.

3. Performing actions in preparation for negotiations on all proposed contract changes and modifications, and requests for contract changes and modifications.

4. Negotiating equitable price and other contractual adjustments resulting from changes.

5. Obtaining Audit Advisory Reports (AAR) and Technical Analysis Reports (TARs) as required.

6. Reviewing for approval of all proposed contractor subcontracts required by the terms of assigned contracts to be submitted for advance consent.

7. Performing contract administration services for all DOD contracts awarded to contractors' facilities assigned in accordance with DCMA administered Federal Directory of Contract Administration Service Components for plant cognizance.

8. Certifying contractor invoices or vouchers for payment.

9. Administering a claims avoidance plan and when required expediting the submission and settlement of claims.

10. Adjudicating final contract settlements and expediting contract closeout.

11. Administering job order or contract terminations.

12. Monitoring the Property Administration Program as outlined in Chapter 11.

13. Maintaining official contract files in those SUPSHIPs without a Procurement Division.

14. Providing support, including on-site personnel when required, for the project offices.

1.1.8.4.3 Proposal Evaluation

Proposal Evaluation functions include:

1. Reviewing and evaluating the contractor's proposals and furnish comments to the procuring and administrative contracting officers for purposes of negotiations.

2. Preparing Technical Advisory Reports (TARs).

3. Preparing Field Pricing Reports.

4. Performing price and cost analysis and developing independent estimates as may be required for adjudication.

5. Reviewing the contractor work scope of proposed changes and reaching a work scope understanding.

6. Determining the effect of changes in delivery schedules and the attendant disruptive effects of proposed work scope changes.

7. Developing and maintaining a data bank of historical cost information.

Note: The Proposal Evaluation Division should remain as independent as possible with respect to function.

1.1.8.5 Budget and Finance Department

The Comptroller or Budget Officer is directly accountable to the Supervisor for all budget and financial management matters. Refer to Chapter 4 of the SOM for a more detailed description of the financial management applicable to the SUPSHIPs. Typical duties include:

1. Providing necessary budget, accounting and comptrollership functions, including procedures, policies and methods, for all appropriated funds and ensure compliance with all DOD and Navy instructions and regulations.

2. Maintaining appropriate memorandum records for funds allocated to SUPSHIPs.

3. Monitoring accounting records maintained by the designated Authorized Accounting Activity (AAA), reconciling SUPSHIP memo records with AAA records, and obtaining from the AAA such accounting data required to provide good financial management.

4. Establishing and maintaining an integrated financial management system to provide financial data to management based on past experience, current trends, future plans, and projected workload.

5. Certifying availability of funds for all procurement documents, requisitions, etc.

6. Performing internal financial contract audits.

7. Providing management technical guidance in the financial area.

8. Coordinating and administering the preparation, justification, submission, and execution of SUPSHIP budget.

9. Promulgating departmental operating limitations in such areas as travel, overtime, training, or any other area deemed necessary by the Supervisor.

10. Preparing financial and budget reports.

1.2 U.S. Navy New Construction – Acquisition Organizational Relationships

1.2.1 General

The following sections discuss the Navy organization that is responsible and accountable for the acquisition and conversion of ships, submarines, boats, and craft, and the organizational structure of the SUPSHIP as a component of the DoD and Navy Contract Administration Service (CAS).

1.2.2 Secretary of the Navy

The Secretary of the Navy is responsible for the oversight of the construction, outfitting, and repair of naval ships, equipment, and facilities. The authority for construction and outfitting of naval vessels and life cycle management is exercised through the Assistant Secretary of the Navy (Research, Development and Acquisition). Appendix 1-E provides a simplified organization chart for the Secretary of the Navy.

1.2.3 Assistant Secretary of the Navy (ASN), Research, Development and Acquisition (RD&A)

The Navy Acquisition Executive responsibilities assigned to ASN (RD&A) are contained in:

- DoD Directive 5000.1, the Defense Acquisition System, reference (e)

- DoDI 5000.2, Operation of the Defense Acquisition System, reference (f)

- SECNAVINST 5400.15C Chg-1, Department of the Navy Research and Development, Acquisition, Associated Life Cycle Management, and Logistics Responsibilities and Accountability, reference (g)

ASN (RD&A) delegates this authority to the Systems Commanders, including Commander, Naval Sea System Command (COMNAVSEASYSCOM) and Program Executive Offices (PEOs) relative to RD&A matters. Appendix 1-E shows the organizational structure of the Office of ASN (RD&A).

1.2.4 Chief of Naval Operations (CNO)

The Chief of Naval Operations (CNO) is responsible to the Secretary of the Navy (SECNAV) for the readiness, use, and logistics support of all U.S. Naval Forces (sea, air, and land) in both peace and war. As the military chief of the Navy, the CNO is the principal advisor to SECNAV and the executive branch of the Government on naval military matters. The CNO formulates detailed strategic plans to carry out the missions assigned to the Navy. These plans generate broad requirements for ships, weapons systems, and associated equipment that are, in turn, assigned to the Systems Commands (SYSCOMs) for further implementation. The CNO organization justifies and supports requests to Congress for the necessary funds to carry out specific ship construction, repair, and conversion programs. Acting in staff capacity in the office of CNO, the Ships Characteristics Improvement Panel (SCIP) supports the Resources and Requirements Review Board (R3B) and determines the characteristics of the ships demanded by the Navy's military missions. These characteristics are subsequently translated into requirements for the construction of mission specific ships, which are then assigned to NAVSEA for acquisition. After assignment to NAVSEA, proposed changes to ship operational requirements (military characteristics) must be approved by the CNO. The CNO must also approve changes to technical specifications, except for the correction of errors and inconsistencies, which would:

- Increase the end cost of a ship project in a particular year above the end cost shown in the latest approved Ship Cost Adjustment (SCA) report

- Delay delivery of a ship beyond the contract delivery date or the most recent NAVSEA estimated delivery date, if later than the contract date

CNO is assisted by a staff in the Office of the Chief of Naval Operations (OPNAV). NAVSEA 04Z works with the Director of Warfare Integration (N8F) under the Deputy CNO for Integration of Capabilities and Resources (N8) to obtain funding and civilian manpower for the SUPSHIPs' operations. This is the same CNO staff code with primary responsibility for funding new construction programs.

Additionally, the OPNAV staff includes sponsors who consolidate budget submissions from the Fleet and assist in the overall development and administration of the Navy's maintenance and modernization budget for specific ship types, or "platforms," including associated logistics. The platform sponsors are major participants in the development of the Navy's

Fleet Modernization Program (FMP). Policies and procedures for modernization policy are established in the Fleet Modernization Program (FMP) Manual, SL720-AA-MAN-010 & 20, reference (h). Ship maintenance and repair policy is provided in OPNAVINST 4700.7L, Maintenance Policy for U.S. Naval Ships, reference (i), and the Joint Fleet Maintenance Manual (JFMM), COMFLTFORCOMINST 4790.3, Volumes I thru VII, reference (j). Appendix 1-E shows a portion of the CNO organization and the relationship to SECNAV and the Systems Commanders (SYSCOMs).

1.2.5 Systems Commands (SYSCOMs)

The Navy has established five SYSCOMs with specific responsibilities to support acquisition, modernization and readiness of the operational Fleet.

- Naval Sea Systems Command (NAVSEA)
- Naval Air Systems Command (NAVAIRSYSCOM)
- Space and Naval Warfare Systems Command (SPAWARSYSCOM)
- Naval Supply Systems Command (NAVSUPSYSCOM)
- Naval Facilities Engineering Command (NAVFACENGCOM)

NAVSEA is the SYSCOM that is accountable for the operations of the SUPSHIPs.

1.2.6 Naval Sea Systems Command (NAVSEA)

NAVSEA is the coordinator of shipbuilding for the Department of the Navy and acts as the coordinator for shipbuilding, conversion and repair for other DoD Agencies. Appendix 1-F outlines the structure of the NAVSEA corporate leadership.

NAVSEA has two distinct roles, each with a different direct reporting responsibility:

1. NAVSEA, under ASN (RD&A), is the Navy Department's central activity for designing, engineering, integrating, building, and procuring U.S. Naval ships, submarines, and other sea platforms including shipboard weapons and combat systems. As the technical authority and operational and safety assurance certification authorities for ships and ship systems, COMNAVSEA, through the NAVSEA Chief Engineer (NAVSEA 05, NAVSEA CHENG), supports programmatic authorities (PEOs, NAVSEA 07, NAVSEA 21,and the TYCOMS) in their role of providing for life cycle management of Navy ships, submarines, craft, and boats.

   COMNAVSEASYSCOM is Head of Contracting Activity (HCA) with delegated authority in Federal Acquisition Regulations (FAR) to enter into and administer contracts for materials and services under the responsibility of NAVSEA. COMNAVSEASYSCOM has delegated this contractual authority to the Deputy Commander for Contracts (NAVSEA 02). FAR specifically states that only those individuals who have been qualified in accordance with the Defense Acquisition

Workforce Improvement Act (DAWIA) and who have been authorized by NAVSEA 02 and remain within the limits of their written delegated authority can legally commit the Government to any contractual action. This accountability is discussed in detail in Chapter 3. NAVSEA is responsible for the research, design, development of contractual and detailed design, logistics planning, technical evaluation, acquisition, contracting, production, construction, manufacture, inspection, testing, fitting out, supply, inventory management, and basic outfitting of naval material.

2. Under CNO, NAVSEA's mission functions include the provision of material support to the Navy and Marine Corps for ships and craft, shipboard weapons systems and components, ammunition, guided missiles, mines, torpedoes, and all other surface and underwater ordnance expendables. Material support encompasses the complete life cycle from research and design through test and evaluation to technical responsibility for modernization, maintenance strategies, and Fleet support for Commander, United States Fleet Forces Command (USFF), Regional Maintenance Centers (RMCs) for each geographic region, and the Surface, Submarine and Navy Air Type Commanders (TYCOMs). NAVFACENGCOM, SPECWARFARE and Military Sealift Command are accountable for the material support of their assigned craft and ships.

   NAVSEA's basic mission for ships and submarine repair and modernization is to provide engineering and technical support, contracting authority, quality assurance, and environmental, safety, and health oversight. Additionally, NAVSEA maintains the Fleet Maintenance Program (FMP) Management Information System (FMPMIS) and develops documentation for all authorized alterations that are to be accomplished following ship delivery to the Fleet. NAVSEA also authorizes and funds all major alterations not authorized and funded by the ship or submarine Type Commander (TYCOM). JFMM addresses maintenance, alteration, conversion, and modification of ships, craft, and boats assigned to the operating forces that may be carried out by assignment of work to Naval Shipyards (NSYs) or by procurement of services and support from private industry through the SUPSHIPs or Regional Maintenance Centers (RMCs).

1.2.7 Deputy Commander, Nuclear Propulsion Directorate NAVSEA 08/Director of Naval Nuclear Propulsion Program

The Director of Naval Nuclear Propulsion Program reports to the CNO and the U.S. Department of Energy on all Navy nuclear propulsion matters. This position is also aligned with NAVSEA in a technical and programmatic oversight role for nuclear propulsion. A Naval Reactors Representative is assigned to each public and private shipyard performing naval nuclear propulsion plant work. The representative is accountable to perform an independent review and surveillance of all shipyard work and technical actions relating to naval nuclear propulsion. The representative has free access to all elements of the shipyard and SUPSHIP offices, with direct access to the Supervisor, for matters either directly or indirectly involved with naval nuclear propulsion. The representative's review and surveillance do not change or diminish the responsibilities of the SUPSHIP.

1.2.8 Program Executive Office (PEO)/Program Offices

The PEOs, shown in Appendix 1E, report to ASN (RD&A) and receive administrative, technical and programmatic support from the SYSCOMS. NAVSEA and the SUPSHIPs manage a significant number of acquisition programs that are assigned to the PEOs and various Headquarters elements. The PEOs are tasked with acquisition and Life Cycle Management (LCM) of their assigned ship and submarine programs.

Within each PEO office, an individual is assigned as the Program Manager (PM) with an assigned program management staff that is responsible for a specific ship class. The ship class PM office provides centralized management for the assigned ship or submarine class. During the design and construction process, the PM may be represented by an on-site Program Managers Representative (PMR) who reports to both the PM and Supervisor.

1.2.9 Logistics, Maintenance and Industrial Operations Directorate (NAVSEA 04)

NAVSEA 04 closely supports the requirements and functions of the CNO's Director for Material Readiness & Logistics (N4), Commander Fleet Forces Command (CFFC), Atlantic and Pacific Fleet Maintenance Officers, and ship and submarine customers. The Directorate develops policy and infrastructure associated with ship maintenance, logistics support, environmental and safety programs, and related efforts. NAVSEA 04 also provides management and leadership for the SUPSHIPs and Naval Shipyards. Appendix 1G outlines the NAVSEA 04 organization.

1.2.10 Director, SUPSHIP Management Group (NAVSEA 04Z)

NAVSEA 04Z is accountable to NAVSEA 04 as depicted in Appendix 1G. The Director and the NAVSEA 04Z staff provide headquarters management and supervision for SUPSHIP corporate operations, lead the strategic planning initiatives for both Headquarters and the SUPSHIPs, provide financial management oversight and manage the SUPSHIP budgets and manpower requirements, and represent programmatic issues with other NAVSEA codes, PEOs, and ASN(RDA). Additionally, the NAVSEA 04Z staff is the headquarters advocate for issues that emerge in each of the SUPSHIPs. The NAVSEA 04Z organization and responsibilities are shown in Figure 1- 2.

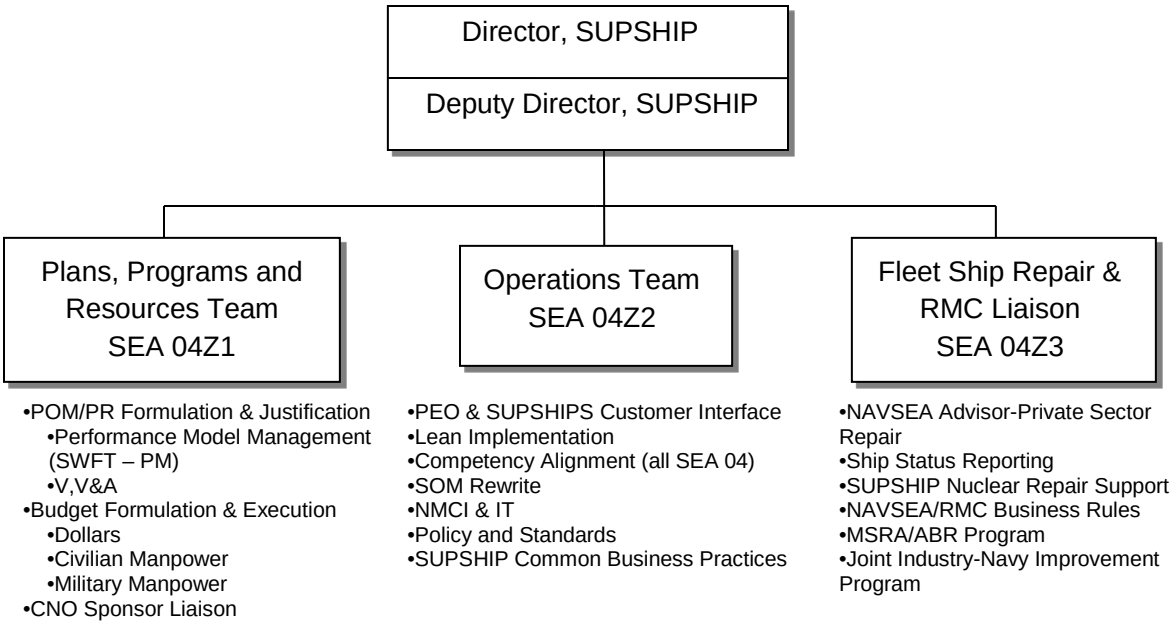


Figure 1-2. SUPSHIP Management Group (NAVSEA 04Z)

1.3 Additional Organizations in Navy Acquisition Programs

1.3.1 The Atlantic and Pacific Fleets

Fleet activities provide input to the development of ship characteristics and become involved in trials, delivery/redelivery, and guarantee periods of ships and submarines. Upon acceptance of the new construction ship, submarine or craft, the designated Fleet command becomes the operator and maintainer while assigned to that command. Commander Fleet Forces Command (CFFC) is responsible for the Atlantic Fleet operations as Commander, U.S. Atlantic Fleet, and as senior commander for providing direction and policy for maintenance and modernization of United States Fleet Forces. Commander, U.S. Pacific Fleet is responsible for fleet units operating in the Pacific Area of Responsibility (AOR). The Fleet and NAVSEA develop maintenance strategies, procedures, and processes for new ships that are integrated into the Joint Fleet Maintenance Manual (JFMM) using the concept of Continuous Maintenance (CM). Warfare specific Type Commanders (TYCOMs) have been established for each Fleet for surface ships, aircraft and aircraft carriers, submarines, and special warfare to manage the maintenance and upkeep of all assigned ships. The Fleet Commanders determine ship schedules, including Post Shakedown Availabilities (PSAs) and, within guidelines published by the CNO, approve changes in scheduled availability dates for assigned ships. Through their respective TYCOMs, the Fleet Commanders provide funding for advance planning and execution of CNO scheduled ship maintenance availabilities.

1.3.2 Type Commanders (TYCOMs)

In support of new construction, TYCOMs have a primary mission to provide input to the development of ship characteristics and participate in trials, delivery, and guarantee periods of newly delivered ships. The JFMM Volume I addresses the Fleets' role in new construction.

Warfare specific TYCOMs are assigned in both Fleets for surface, air, and sub-surface assets. One of the two Fleet Commanders is the lead TYCOM for each specific warfare platform. These TYCOMs are assigned to the Fleet Commanders as shown below:

- Commander U.S. Fleet Forces Command (CFFC) (Commander U.S. Atlantic Fleet)
    - Commander Naval Air Force U.S. Atlantic Fleet
    - Commander Submarine Forces (Commander Submarine Force U. S. Atlantic Fleet)
    - Commander Naval Surface Force U. S. Atlantic Fleet
- Commander U.S. Pacific Fleet
    - Commander Naval Air Forces (Commander Naval Air Force U.S. Pacific Fleet)
    - Commander Submarine Force U. S. Pacific Fleet
    - Commander Naval Surface Forces (Commander Naval Surface Force U. S. Pacific Fleet)

There are two other major commands that are also responsible for the maintenance of assigned ships and craft. They are Commander Naval Mine Warfare Command (COMMINEWARFARE) and Commander Naval Special Warfare Command (COMSPECWARFARE). They function in a role similar to the TYCOMs.

Within guidelines established by the CNO and Fleet Commanders, the TYCOMs, in concert with the numbered Fleet Commanders (COMSECOND FLT, COMTHIRD FLT, etc.), recommend schedules for ships maintenance or modernization availabilities. In this regard, the TYCOM is the most important activity involved in scheduling ship and submarine refits, modernization, and major repair planning activities that directly involve the ship or the ship's crew. Ships and submarines are assigned to the numbered operational Fleet Commanders for pre-deployment workup and during deployments.

1.3.3 Naval Supervising Activities (NSAs)

As defined in JFMM, volume 2, paragraph 2.1.1, the Naval Supervising Activity (NSA) is responsible for execution of assigned ship repair and modernization availabilities. In addition to the SUPSHIPs, the Naval Shipyards (NSYs), Regional Maintenance Centers (RMCs), and

Ship Repair Units (SRUs) are all considered qualified to be NSAs. SUPSHIPS may remain the NSA for a Post Shakedown Availability (PSA) or fill a support role to another NSA where repair work and in some cases alterations may be accomplished concurrently with any guarantee or deferred work from the construction phase.

As defined in the JFMM, the duties and responsibilities of the Naval Supervising Authority are:

a. The Naval activity responsible for the verification of work being accomplished on U.S. Naval ships. The Naval Supervising Authority (NSA) shall be assigned by the Fleet Maintenance Officer for Chief of Naval Operations (CNO) availabilities. The NSA will ensure that all work under their cognizance is authorized and completed in compliance with applicable technical requirements and maintenance policy. The NSA must possess a Naval Sea Systems Command (NAVSEA) technical warrant.

b. In availabilities with multiple NSAs, the Fleet Maintenance Officer designated NSA (the lead NSA) will be responsible for all work accomplished by all activities and act as the single point of contact. These responsibilities include, but are not limited to:

   (1) Coordinates with other NSAs

   (2) Acts as single point of contact for the Lead Maintenance Activity (LMA) and shipboard personnel

   (3) Collects all necessary paperwork to document the completion of milestones, key events, end of availability, and availability departure report

1.3.3.1 Naval Shipyards (NSYs)

The public shipyards report to NAVSEA 04X for business and technical matters and Additional Duty (ADDU) to the Maintenance Officers at Fleet Forces Command and Commander Pacific Fleet. The Naval Shipyards are strategic industrial assets with mobilization responsibilities associated with national tasking. They maintain core ship conversion, modernization and repair industrial capabilities that are integrated into the overall U.S. maritime industrial base that support our national strategies for forward force projection. The core capabilities include extensive nuclear and non-nuclear ship engineering disciplines and production capabilities. The industrial facilities and equipment are employed to perform scheduled maintenance on all classes of ships in the USN and MSC force. Naval Shipyards are also assigned responsibilities as Planning Yards (PY) for designated ship classes and provide engineering expertise and technical support for the Fleet Modernization Program.

1.3.3.2 Regional Maintenance Centers (RMCs)

The RMCs function under the guidance and policies of CFFC. They are also responsible to the TYCOMS for work item screening, planning for continuous maintenance, and managing the Fleet maintenance and repair availabilities for ships and submarines in their assigned geographic region in accordance with the JFMM. Additionally, some SUPSHIPs have Memorandums of Agreement or Concepts of Operations with RMCs in their geographic

region. For example, SUPSHIP Bath has a Memorandum of Agreement with the Southwest Regional Maintenance Center (SWRMC) to provide support to SUPSHIP Bath Detachment, San Diego for their new construction programs. Similarly, SUPSHIP Groton has a Memorandum of Agreement (MOA) with Regional Support Group Groton that has established procedures for providing services to that organization. In instances where SUPSHIPs or RMCs will be receiving technical, administrative or programmatic support from the other, NAVSEA 04Z shall assist in negotiating any agreements or concepts of operations between the two.

Functions that have been performed by SUPSHIP organizations in select geographic regions have been integrated into the respective RMC as approved by NAVSEA and CFFC. There is a shared level of responsibility in NAVSEA 04Z to maintain an interface with Fleet Maintenance Organizations.

In addition to the U.S.-based RMCs, there is one RMC located overseas; RMC Japan. Headquartered in Yokosuka, with a detachment in Sasebo, this echelon 3 repair facility is led by a contingent of U.S. military and civilian personnel, with the majority of the workforce consisting of Japanese employees. RMC Japan is a depot-level repair activity with extensive industrial capabilities, including six dry docks, one of which is capable of accommodating aircraft carriers.

1.3.4 Submarine Maintenance Engineering Planning and Procurement (SUBMEPP)

Submarine Maintenance Engineering Planning and Procurement (SUBMEPP) provides submarine maintenance and modernization support for NAVSEA and the Fleet. SUBMEPP and its functional responsibilities are a component of Portsmouth Naval Shipyard.

1.3.5 NAVSEA Shipbuilding Support Office (NAVSHIPSO)

With respect to new construction and under the direction of NAVSEA, the NAVSHIPSO prepares schedules showing when materials and components are required for the timely and orderly completion of new construction contract work. NAVSHIPSO schedules are initially established and revised as necessary in collaboration with NAVSEA, other Navy material commands, SUPSHIP, design activities, and shipbuilding contractors.

1.3.6 Naval Inactive Ship Maintenance Facilities (INACTSHIPFAC)

SUPSHIP work may be required to support the inactivation of ships scheduled for retention at INACTSHIPFACs. The work involved is the inactivation effort beyond the capability of ship's force and includes such tasks as hull blanking, gas freeing of tanks, hydro blasting CHT systems, and towing preparations.

The TYCOM normally authorizes the work and NAVSEA funds such work. In some cases, inactive ships may be reactivated for delivery to foreign governments. This work is normally authorized and funded by NAVSEA or higher authority.

1.3.7 Defense Finance and Accounting Service (DFAS) Offices

Accounting and disbursing operations in the continental United States (CONUS) and Hawaii are consolidated at designated Defense Finance & Accounting Service (DFAS) Centers and Operating Locations (OPLOCs).

All contracts, agreements, and orders citing Navy appropriations and funds paid by DFAS disbursing offices will show the appropriate paying office.

1.3.8 Defense Contract Audit Agency (DCAA)

Contract auditing is a function of DCAA. The DCAA has subordinate field offices including district/regional, branch, procurement liaison, contractor residency, and contract audit coordination offices. The DCAA office performs two basic functions:

- Advising on the allowability of costs under cost-reimbursement type contracts
- Providing advisory audit reports to assist in pricing actions under all types of contracts

The specific assistance DCAA auditors render in connection with payments, termination settlement proposals, adjudication of claims, and pricing of certain negotiated changes is discussed in the appropriate chapters of this manual. The DCAA plays an important role in the award and administration of contracts. Their role is that of an advisor, with SUPSHIP retaining responsibility for subsequent contractual actions. The SUPSHIP has full responsibility for contract administration and must therefore make final decisions regarding advice provided by DCAA; however, departure from DCAA recommendations must be fully justified.

1.3.9 Defense Contract Management Agency (DCMA) - Components

Within an assigned area, a DoD Contract Administration Service (CAS) component is responsible for the field administration of all contracts placed by DoD activities. The Federal Directory of Contract Administration Services Components lists all DCMA components engaged in the performance of contract administration services, together with their geographic or plant cognizance assignments, and the services they perform.

As members of the DoD CAS organization, SUPSHIP CAS responsibilities for specific contractor plants are identified in the Federal Directory of CAS components.

The SUPSHIP may require performance of certain contract administration functions, such as performance of quality assurance, source inspection, etc., at a subcontractor's plant under the cognizance of another DCMA component. These services, when required, are requested in accordance with FAR 42.2 and FAR 42.3.

In vessel acquisition procurements, the DCMA Component usually is responsible for:

- Administering DoD contracts for components to be provided as Government - Furnished Material (GFM) to vessel acquisition contractors
- Performing source inspection, progressing, and expediting actions in connection with GFM services and technical data
- Acting as disposal officer in the sale of terminal inventories

1.3.10 Military Sealift Command (MSC)

As a major command in the operating forces of the Navy, MSC maintains a force composed of strategic sealift ships which provide defense-related requirements for worldwide dry cargo, Petroleum, Oil, and Lubricants (POL), and special purpose ocean transportation. MSC supports special mission and scientific support ships for DoD and other Government agencies, Fleet auxiliaries providing underway replenishment, and other services to the United States and allied fleet operating forces.

NAVSEA is responsible for the design (including incorporation of the ABS Steel Vessel Rules), construction, conversion, and delivery of MSC fleet assets acquired with SCN or other procurement appropriation funds. Accordingly, the cognizant SUPSHIP is assigned the responsibility for overall field administration of shipbuilding and conversion contracts, including the Administrative Contracting Officer function. Depending upon specific agreements between Commander, MSC (COMSC) and COMNAVSEA, MSC may assign Construction Representatives (CONREPs) to the SUPSHIP officer responsible for administration of the contract.

1.3.11 Agencies Influencing Design Considerations

The specifications of some ship, boat, and craft acquisition contracts invoke standards or rules established by the American Bureau of Shipping (ABS), the Public Health Service, the United States Coast Guard (USCG), and other agencies. In such cases, certificates of compliance with these standards must be obtained from the cognizant agency prior to acceptance of the vessel.

As an example, ABS and NAVSEA have worked cooperatively to establish Naval Vessel Rules (NVRs) and other guidelines for application in specific new construction programs (for example, High Speed Vessel Ships). The rules incorporate many portions of the General Specifications for Overhaul of Ships of the U.S. Navy. These rules capture best practices from commercial shipbuilding and integrate them into construction specifications. ABS conducts on-site production surveys to confirm that the vessel is constructed to the requirements necessary to achieve ABS classification. Business rules are established between the SUPSHIP and ABS in accordance with the Acquisition Plan and approved by NAVSEA 04Z during pre-construction planning if NVR’s are to be contractually invoked.

In the case of new construction programs for Military Sealift Command (MSC), the design incorporates the ABS Steel Vessel Rules as applicable.

1.3.12 Government Accountability Office (GAO)

The GAO, although not a part of the Navy, is concerned with Government fiscal and contract matters, including DoD. The GAO is entirely separate from the executive branch of the Government and acts as the agent of Congress in investigating all matters relating to Government procurement. SUPSHIP shall notify NAVSEA 04Z and the PEO when representatives of GAO are planning to make a visit to SUPSHIP activities. All communications with GAO on matters involving NAVSEA contracts, whether they are initiated by the field activity or in response to a GAO inquiry, will be processed in accordance with NAVSEAINST 5730.1E**, Legislative and Congressional Matters, reference (k), and NAVSEAINST 7500.1B**, Audits of NAVSEA by External Audit Organizations (EAOS), reference (l).

1.3.13 Foreign Governments

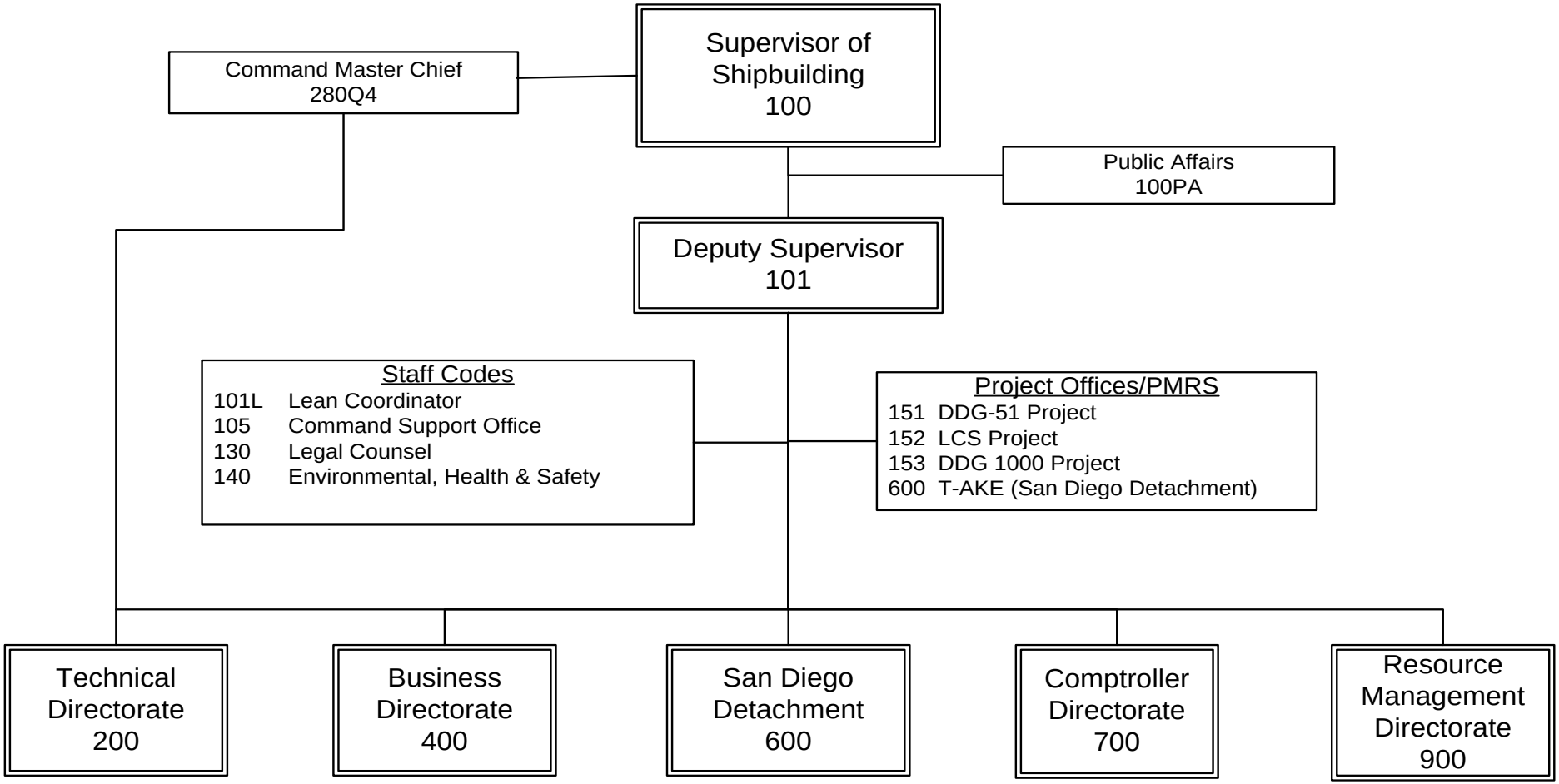
Acquisition of vessels for delivery to foreign governments is made under Navy contracts and is charged to funds provided by the foreign government, usually under the coverage of a Foreign Military Sales (FMS) case.

1.3.14 Private Companies - Demilitarizing and Stripping

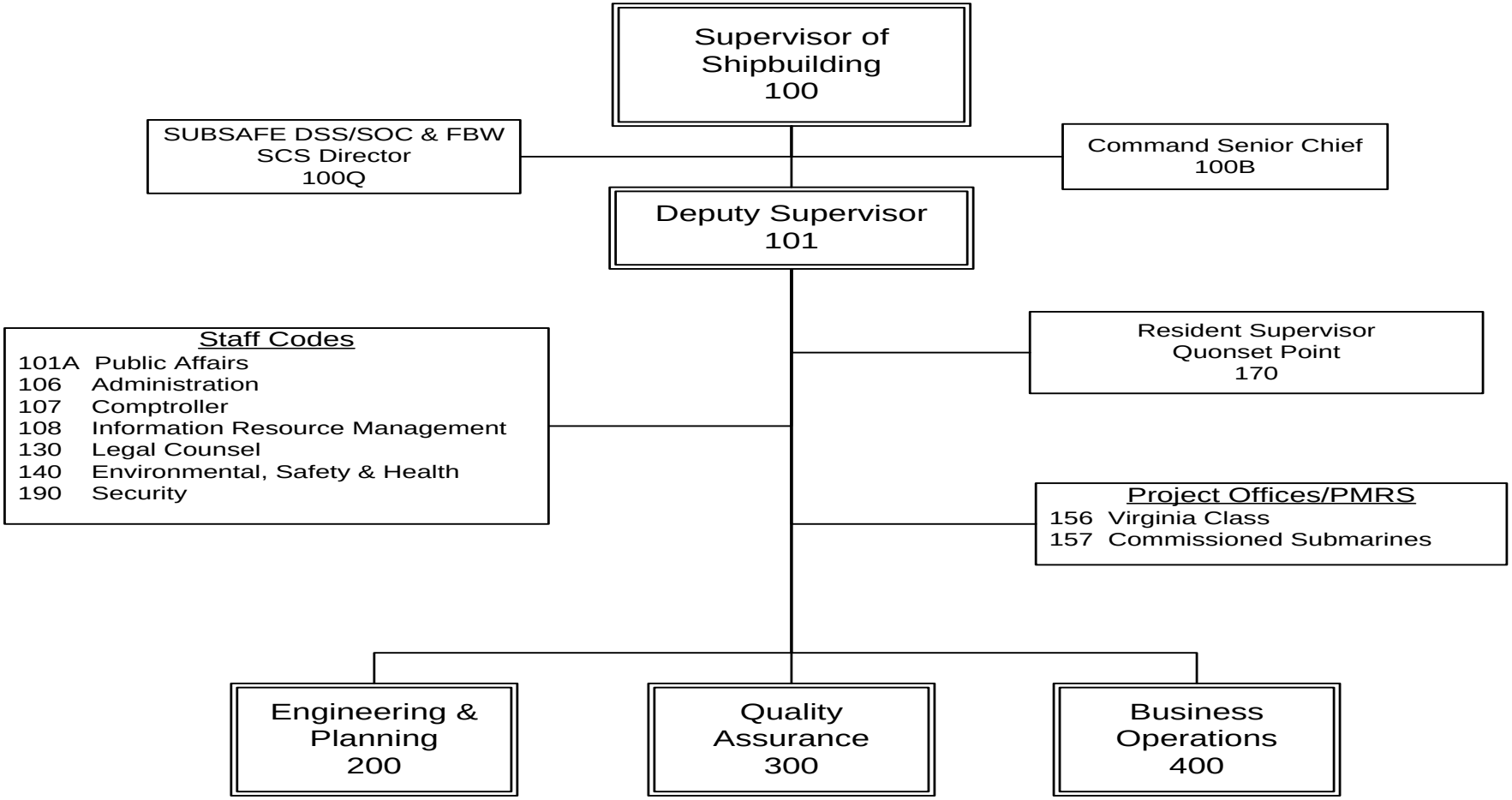
A SUPSHIP may sometimes be required by NAVSEA to arrange for the demilitarization and stripping of ships which are programmed for disposal or for sale to private concerns. In the case of ships programmed for disposal, these functions, when not performed by the activity having cognizance of the vessel, are carried out by the cognizant SUPSHIP. When the ships are sold to private concerns, the work will be performed by the purchasing contractor as a condition of sale. In these cases, the SUPSHIP will be requested to provide surveillance over the work to ensure its proper performance. Of particular concern is the compliance with Environmental Protection Agency (EPA) and Occupational and Health Administration (OSHA) rules and regulations.

** Denotes secure hyperlink requiring NMCI/CAC access

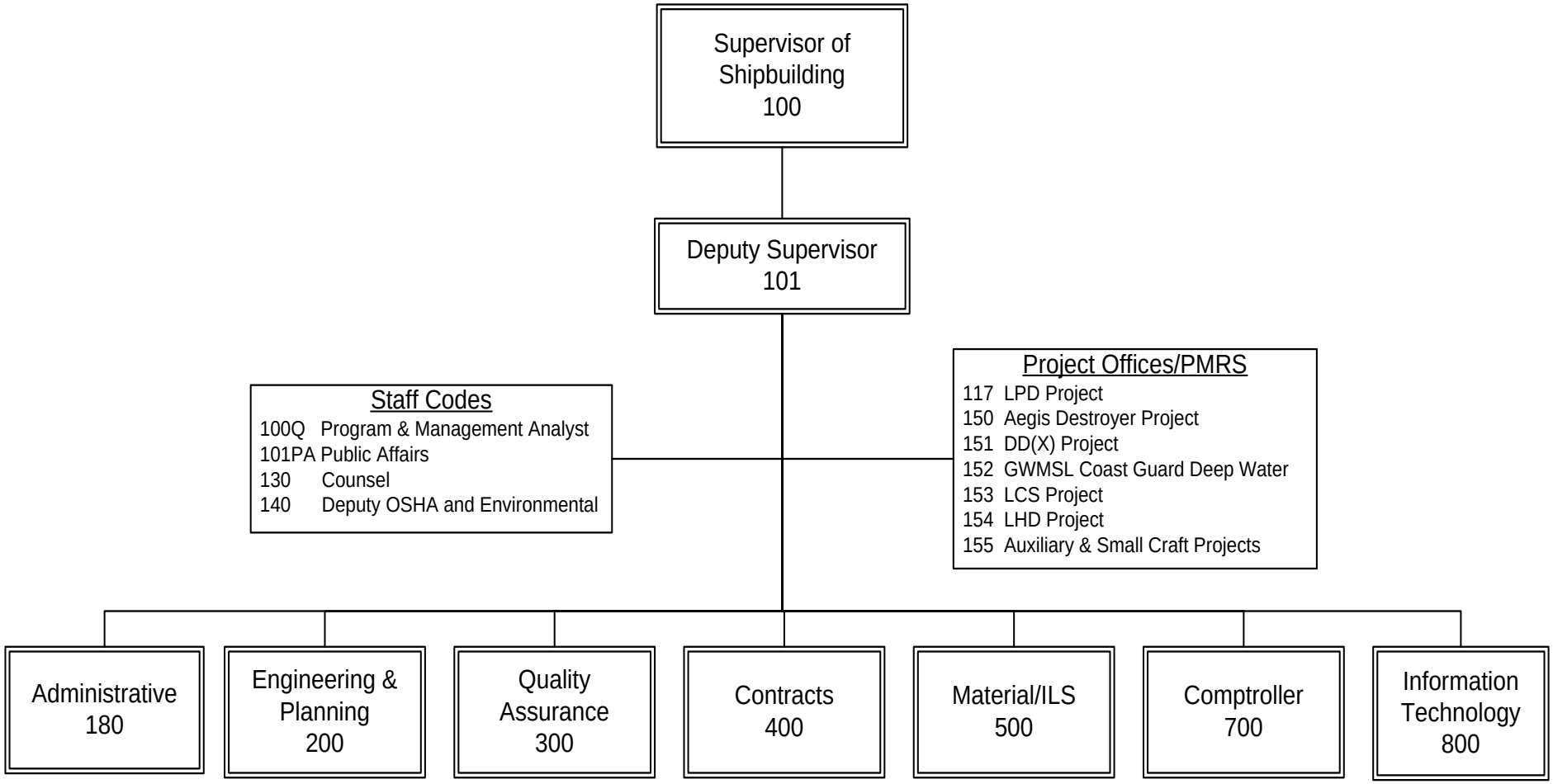
Appendix 1-A: SUPSHIP Bath Organization Chart



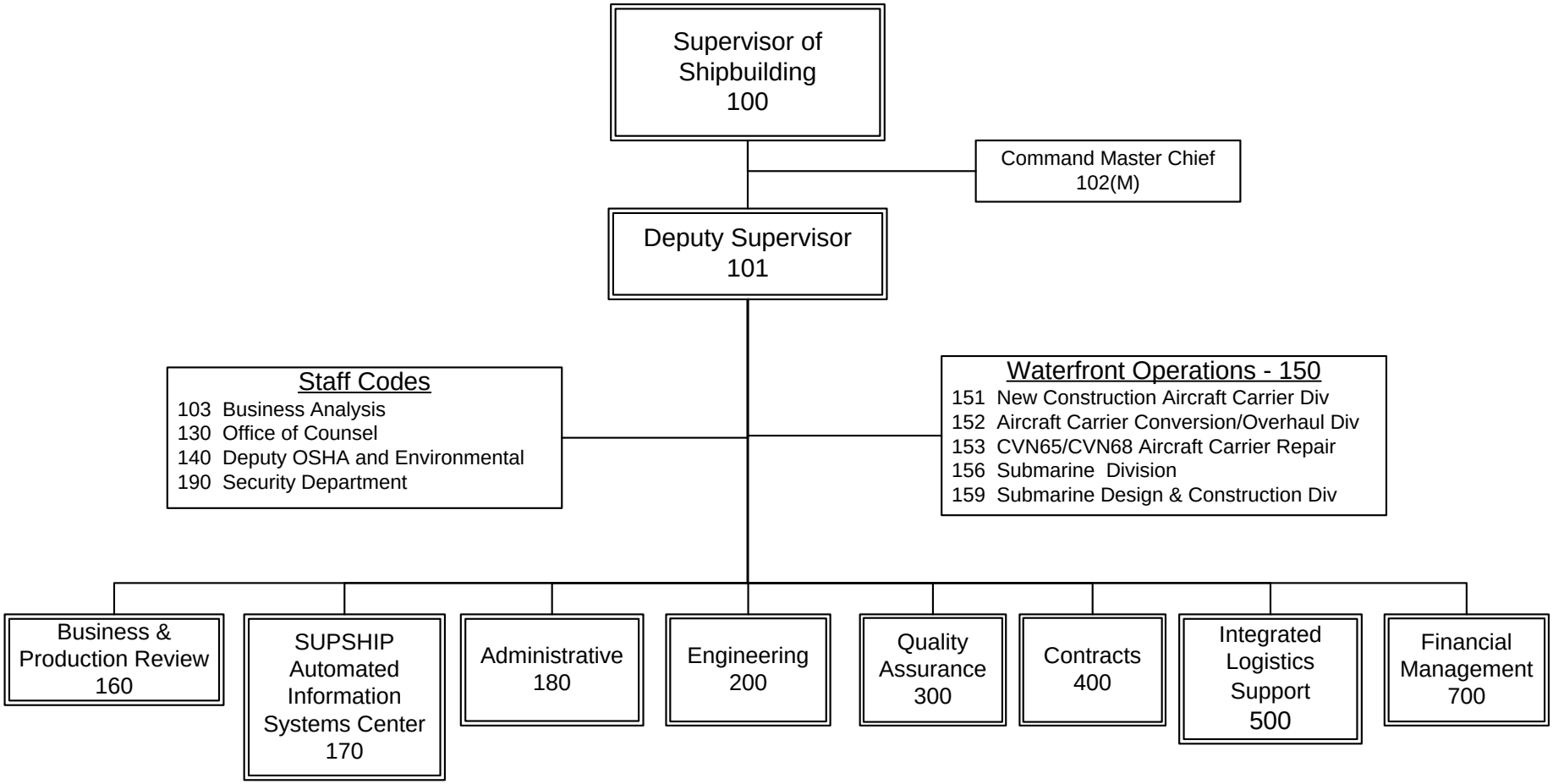
Appendix 1-B: SUPSHIP Groton Organization Chart



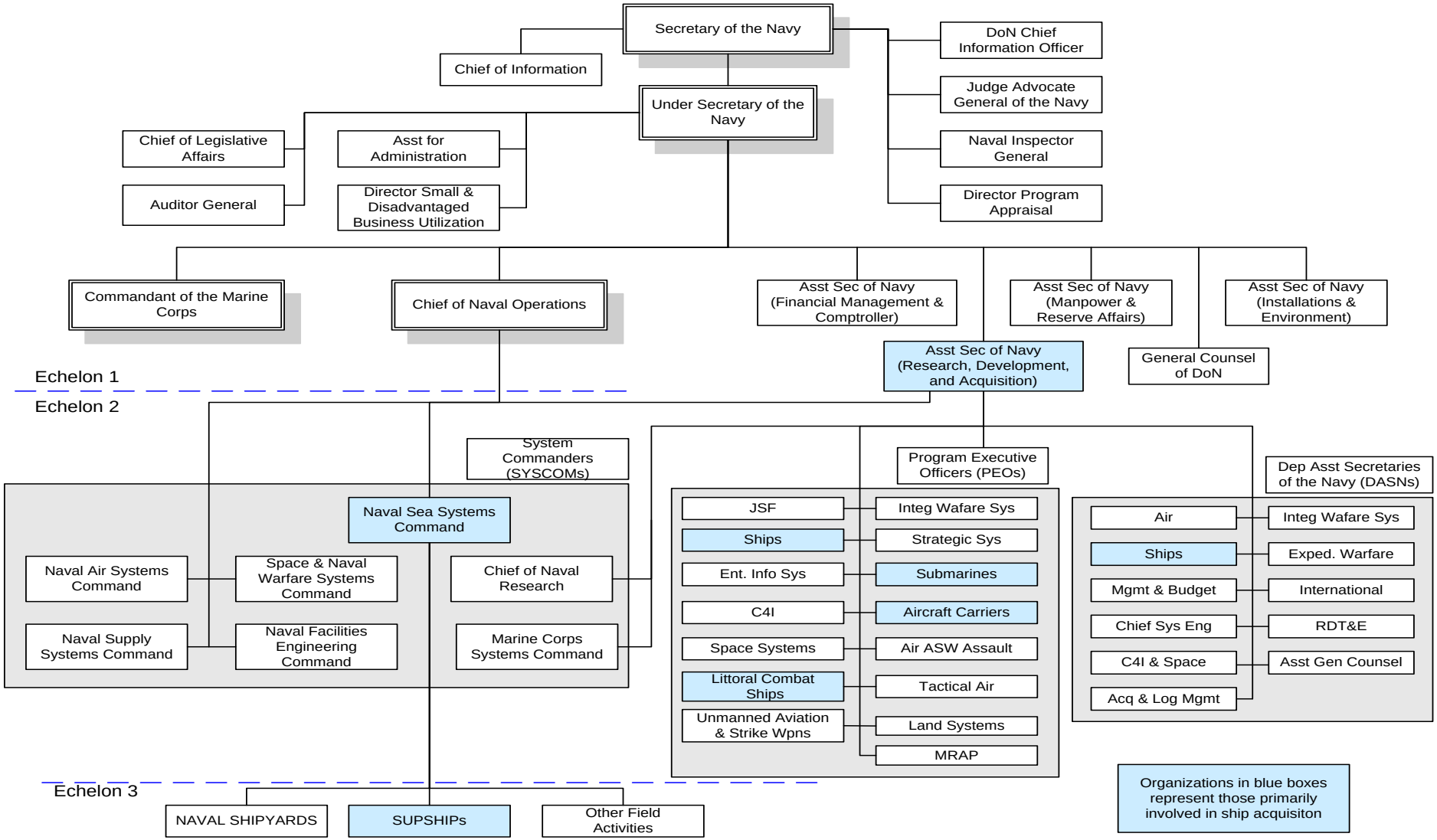
Appendix 1-C: SUPSHIP Gulf Coast Organization Chart



Appendix 1-D: SUPSHIP Newport News Organization Chart

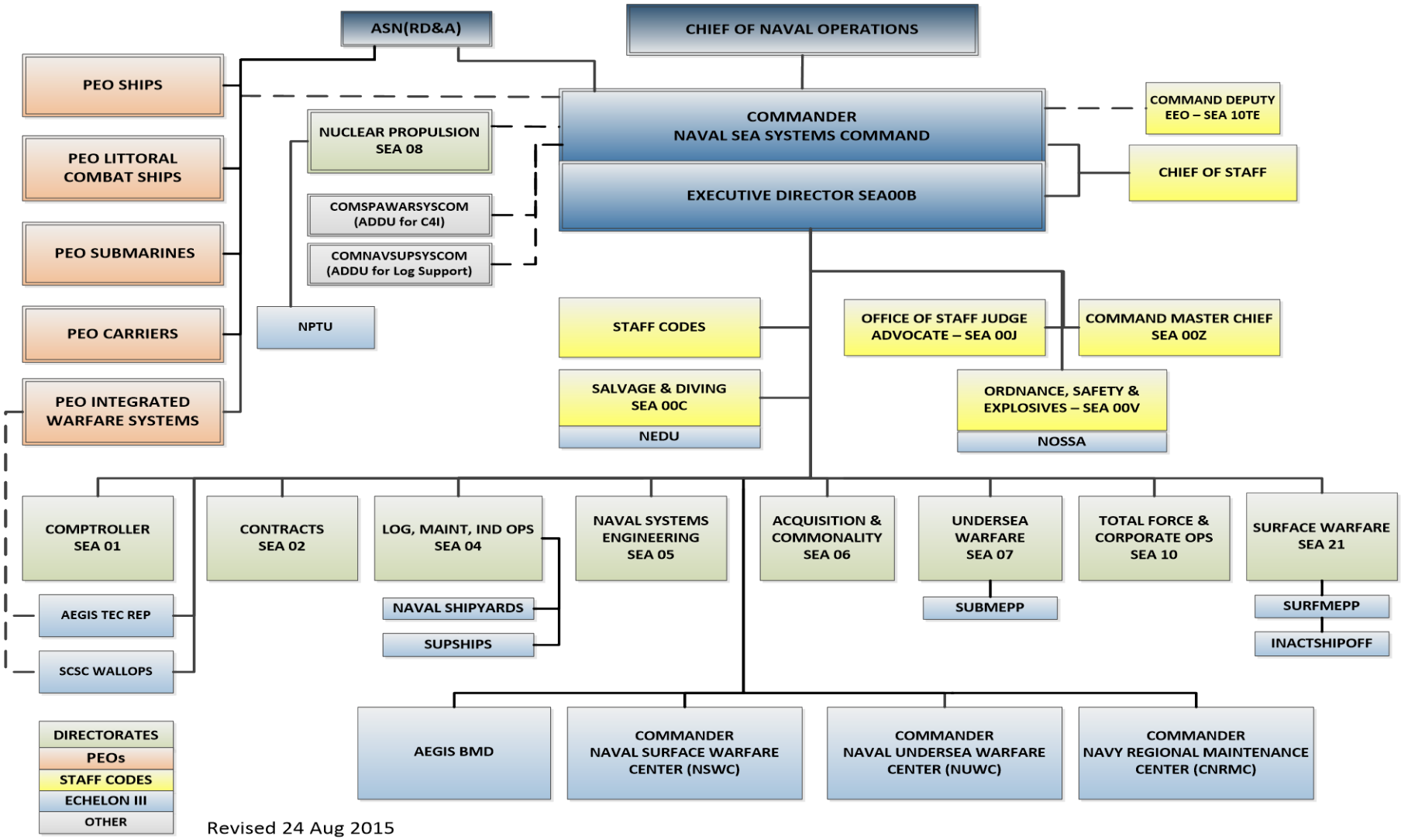


Appendix 1-E: Simplified Navy Organization Chart

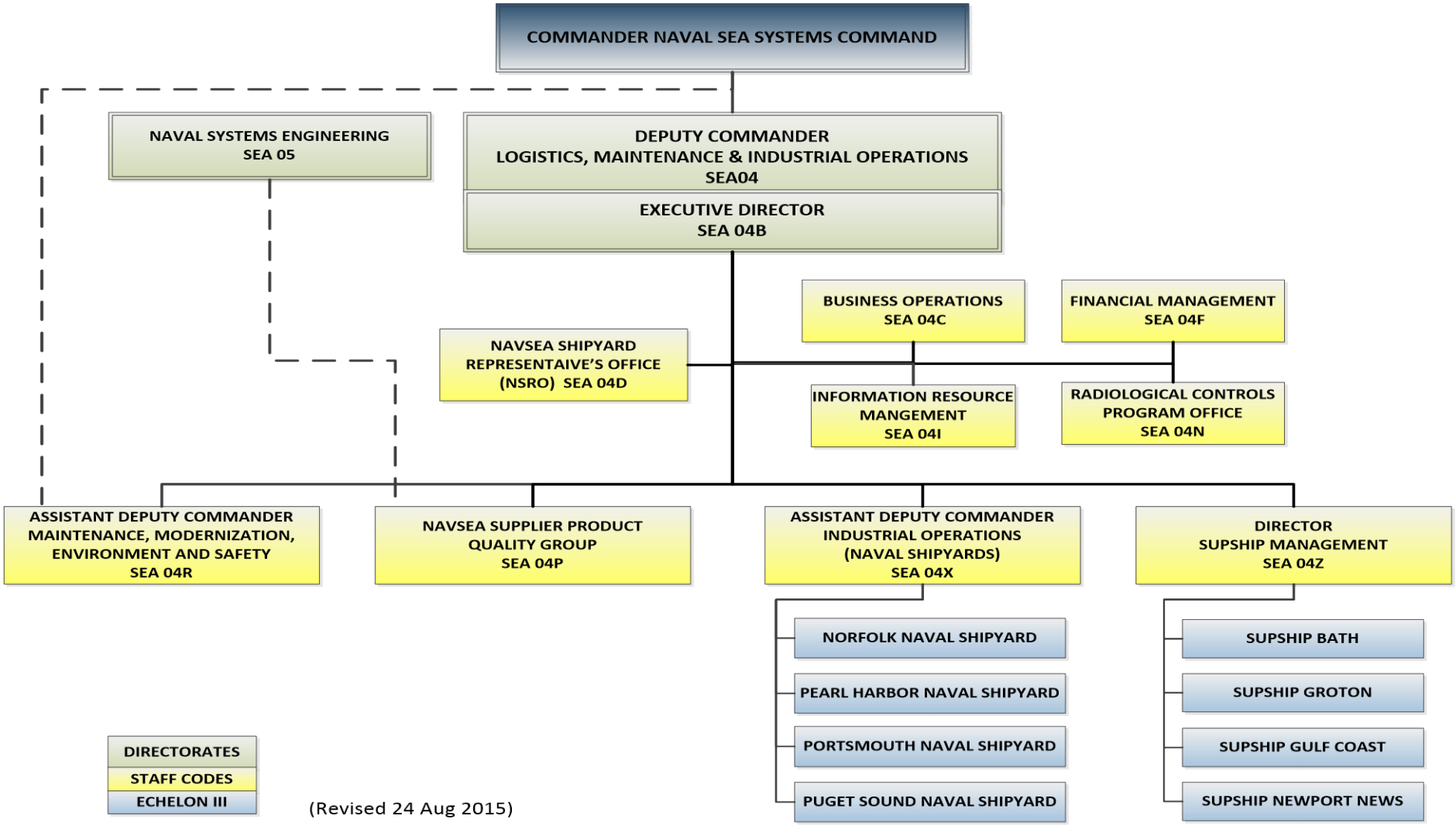


(Revised 31 Jul 2012)

Appendix 1-F: NAVSEA Organization



Appendix 1-G: NAVSEA 04 Organization Chart



Appendix 1-H: Acronyms

AAA	Authorized Accounting Activity
AAR	Audit Advisory Report
ABS	American Bureau of Shipping
ACO	Administrative Contracting Office
ADDU	Additional Duty
AOR	Area of Responsibility
ASN(RD&A)	Assistant Secretary of the Navy (Research, Development and Acquisition
CAO	Contract Administration Office
CAS	Contract Administration Services
CDRL	Contract Data Requirements List
CFFC	Commander, Fleet Forces Command
CHENG	Chief Engineer
CM	Continuous Maintenance
CNO	Chief of Naval Operations
COMFLTFORCOMINST	Commander, Fleet Forces Command Instruction
COMMINEWARFARE	Commander, Naval Mine Warfare Command
COMNAVSEASYSCOM	Commander, Naval Sea Systems Command
COMSC	Commander, Military Sealift Command
COMSECOND FLT	Commander, Second Fleet
COMSPECWARFARE	Commander, Naval Special Warfare Command
COMTHIRD FLT	Commander, Third Fleet

CONREPs	Construction Representatives
CONUS	Continental United States
CPARS	Contractor Performance Assessment Reporting System
DAWIA	Defense Acquisition Workforce Improvement Act
DCAA	Defense Contract Audit Agency
DCMA	Defense Contract Management Agency
DEEOO	Deputy Equal Employment Opportunity Officer
DFAS	Defense Finance and Accounting Service
DoD	Department of Defense
DoD AIG(Audit)	Department of Defense Assistant Inspector General for Auditing
DoDD	Department of Defense Directive
DoDI	Department of Defense Instruction
DSMB	Deputy Strategic Management Board
EAO	External Audit Organization
ECP	Engineering Change Proposal
EEO	Equal Employment Opportunity
EPA	Environmental Protection Agency
ESH	Environmental, Safety and Health
EVMS	Earned Value Management System
FAR	Federal Acquisition Regulations
FMP	Fleet Modernization Program
FMPMIS	Fleet Maintenance Program Management Information System

FMR	Field Modification Request
FMS	Foreign Military Sales
FTE	Full Time Equivalent
GAO	Government Accountability Office
GFM	Government Furnished Material
HCA	Head of Contracting Activity
HMR	Headquarters Modification Request
ILS	Integrated Logistics Support
INACTSHIPFAC	Naval Inactive Ship Maintenance Facility
INSURV	Board of Inspection and Survey
ISO	International Standards Organization
IT	Information Technology
JFMM	Joint Fleet Maintenance Manual
LCM	Life Cycle Manager
MOA	Memorandum of Agreement
MSC	Military Sealift Command
NAS	Naval Audit Service
NAVAIRSYSCOM	Naval Air Systems Command
NAVFACENGCOM	Naval Facilities Engineering Command
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction
NAVSHIPSO	NAVSEA Shipbuilding Support Office

NAVSUPSYSCOM	Naval Supply Systems Command
NCH	NAVSEA Contracts Handbook
NDT	Non-Destructive Testing
NMCARS	Navy and Marine Corps Acquisition Regulation Supplement
NSAs	Naval Supervising Activities
NSYs	Naval Shipyards
NUVEP	NAVSEA Unified Vendor Evaluation Program
NVR	Naval Vessel Rules
OPLOC	Operating Location
OPNAV	Office of the Chief of Naval Operations
OPNAVINST	Chief of Naval Operations Instruction
OSHA	Occupational Safety and Health Administration
OSHA	Occupational Safety and Health Administration
PCU	Pre-Commissioning Unit
PEO	Program Executive Office
PM	Program Manager
PMR	Program Manager’s Representative
POL	Petroleum, Oil and Lubricants
PSA	Post Shakedown Availability
PSA	Post Shakedown Availability
PVI	Product Verification Inspection
PY	Planning Yard

QA	Quality Assurance
R3B	Resources and Requirements Review Board
RMC	Regional Maintenance Center
SCA	Ship Cost Adjustment
SCIP	Ships Characteristics Improvement Panel
SCN	Ship Construction, Navy
SECNAV	Secretary of the Navy
SECNAVINST	Secretary of Navy Instruction
SITREPs	Situation Reports
SNDL	Standard Navy Distribution List
SOM	SUPSHIP Operations Manual
SPAWARSYSCOM	Space and Naval Warfare Systems Command
SPECWARFARE	Naval Special Warfare
SRU	Ship Repair Unit
SUBMEPP	Submarine Maintenance Engineering, Planning and Procurement
SUBSAFE	Submarine Safety Certification Program
SUPSHIPs	Supervisors of Shipbuilding, Conversion and Repair, USN
SWRMC	Southwest Regional Maintenance Center
SYSCOMs	Systems Commands
TAR	Technical Analysis Report
TYCOMs	Type Commanders
USCG	United States Coast Guard

USFF	United States Fleet Forces Command
VIP	Very Important Person
VTC	Video Teleconference

Chapter 2 – Standards of Conduct and Managers' Internal Control Program (MICP)

Table of Contents

2.1 Introduction 2-3

2.2 Summary of Amended Procurement Integrity Act 2-3

2.3 Disclosing and Obtaining Procurement Information 2-4
2.3.1 Disclosing Procurement Information 2-4
2.3.2 Obtaining Procurement Information 2-4

2.4 Actions Required Regarding Offers of Non-Federal Employment 2-4

2.5 Post-Government Employment Restrictions 2-5

2.6 Determining Violations or Possible Violations 2-6

2.7 Measures to Minimize Improper Conduct 2-6

2.8 Hotline Policies and Procedures for NAVSEA Shore Activities 2-7

2.9 Fraud, Waste, and Other Abuse 2-8
2.9.1 Coordination for Fraud Prevention 2-8
2.9.2 Indicators of Defective Pricing Fraud 2-8
2.9.3 Actions against Fraudulent Activities 2-10
2.9.4 Government Personnel 2-11

2.10 Managers' Internal Control Program (MICP) 2-11

Appendix 2-A: SUPSHIP Managers' Internal Control Program (MCIP) Manual 2-13

Appendix 2-B: Acronyms 2-39

References

(a) 5 CFR 2635, Standards of Ethical Conduct for Employees of the Executive Branch

(b) DoD 5500.7-R, DoD Joint Ethics Regulations

(c) 41 USC 421, Office of Federal Procurement Policy Act

(d) PL 104-106, Amended Procurement Integrity Act

(e) Federal Acquisition Regulations (FAR)

(f) 18 USC 204, Restrictions on former officers, employees, and elected officials of the executive and legislative branches

(g) 5 CFR 2641, Post-employment conflict of interest restrictions

(h) DoD Directive 5500.07, DoD Standards of Conduct

(i) NAVSEAINST 5041.1A, DoD Hotline Program Policy and Procedures for NAVSEA

(j) DoDINST 7050.5, Coordination of Remedies for Fraud and Corruption Related to Procurement Activities

(k) SECNAVINST 5430.92B, Assignment of Responsibilities to Counteract Acquisition Fraud, Waste, and Related Improprieties within the Department of the Navy

(l) 31 USC 3729, Civil False Claims Act

(m) 31 USC 3801, Program Fraud Civil Remedies Act

(n) 41 USC 601-613, Contract Disputes Act

(o) 18 USC 874, Anti-Kickback Act of 1986

(p) 41 USC 605, Decision by contracting officer

(q) 10 USC 2408, Prohibition on Persons Convicted of Defense Contract-Related Felonies and Related Criminal Penalty on Defense Contractors

(r) 10 USC 2324, Allowable Costs Under Defense Contracts

(s) OMB Circular A-123, Management’s Responsibility for Internal Control

(t) NAVSEAINST 5200.13C, Management Control Program (MCP)

Chapter 2 – Standards of Conduct and Managers' Internal Control Program (MICP)

2.1 Introduction

Considering the significant power vested in Government officials, the public should expect the conduct of such officials to conform to the highest ethical standards. Congress has passed numerous ethics laws, and the Executive branch has promulgated Government-wide regulations addressing the standards of ethical conduct expected of Government employees, both military and civilian (see 5 CFR 2635, reference (a), Standards of Ethical Conduct for Employees of the Executive Branch and DoD 5500.7-R, reference (b), the DoD Joint Ethics Regulations). As required by DoD for its employees, SUPSHIP personnel receive periodic ethics training from their local counsel's office.

In the context of federal procurements, Congress enacted the Office of Federal Procurement Policy Act, 41 USC 421, reference (c). This law was amended by Public Law 104-106, reference (d), and is referred to as the Amended Procurement Integrity Act.

2.2 Summary of Amended Procurement Integrity Act

FAR 3.104, reference (e), implements section 27 of the Office of Federal Procurement Policy Act (41 USC 423). The effective date of the new law was 1 January 1997. The amended law focuses on:

- improperly releasing or obtaining source selection information and contractor bid or proposal information (formerly referred to as "proprietary information")
- employment discussions between agency officials and contractors
- employment by contractors of former Government officials

These items will be discussed in more detail in later sections of this chapter.

The amended law eliminates all requirements for written certifications, e.g., certifications regarding familiarity with act; not being aware of violations; promising to disclose information about possible violations; and continuing obligation not to disclose proprietary and source selection information.

The amended law eliminates the prior prohibition on a "procurement official" soliciting or accepting a gratuity valued at more than $10 from a "competing contractor" "during the conduct of a procurement." This restriction was deemed to duplicate other gratuities rules, such as the prohibition in the Government-wide standards of conduct regarding gifts from prohibited sources in excess of $20.

Further, the amended law eliminates the requirement for each agency to have a procurement ethics program for training its procurement officials.

2.3 Disclosing and Obtaining Procurement Information

2.3.1 Disclosing Procurement Information

The amended law prohibits certain persons from disclosing certain procurement information, i.e., contractor bid or proposal information or source selection information. This prohibition applies to any person who is:

- a present or former officer or employee of the United States
- any person who is acting or has acted on behalf of the United States
- anyone who has advised the United States with respect to a federal agency procurement and who, by virtue of his office, employment, or relationship, has access to bid, proposal, or source selection information

Such persons must not knowingly disclose such information before the award of the procurement to which the information relates. This section applies only to procurements using competitive procedures. The amended law provides for criminal penalties, including fines and imprisonment for up to five years, if the disclosure was made in exchange for money or to give anyone a competitive advantage.

Definitions relative to this prohibition, “source selection and proprietary information,” are essentially the same terms as prior to amending of the law. The term “contractor bid or proposal information” encompasses proprietary information.

2.3.2 Obtaining Procurement Information

The amended law also prohibits anyone from knowingly obtaining the procurement information described above. Specifically, no one will knowingly obtain such information before award. Mere solicitation of procurement information does not violate the amended law. The same criminal penalties apply to knowingly obtaining procurement information.

2.4 Actions Required Regarding Offers of Non-Federal Employment

If an agency official who is participating personally and substantially in a competitive procurement in excess of $100,000 contacts or is contacted by a bidder or offeror regarding non-federal employment, he or she will give notice and disqualify him or herself from participating in the procurement, unless the possibility of employment is rejected.

The official must report this contact in writing to the immediate supervisor and to the Designated Agency Ethics Official (DAEO), or his designee (local counsel), and either reject the possibility of employment or disqualify himself/herself from further participation until authorized to resume participation. In contrast to the prior law, the disqualification is immediate.

A written notice of disqualification goes to the Head of the Contracting Activity (HCA) or his/her designee, with concurrent copies to the immediate supervisor, the contracting officer, the Source Selection Authority (SSA), and the local legal office. Copies of these disqualifications must be kept for two years.

FAR states that if an employee participates "personally and substantially" in certain listed procurement-related activities, then he/she will be required to report such contacts and either reject the possibility of employment or disqualify himself/herself. Participating personally and substantially in a federal procurement is defined in FAR 3.104-1. Civil or administrative penalties can be imposed for violations of this prohibition.

2.5 Post-Government Employment Restrictions

The amended law provides for a one year prohibition on receipt of compensation from certain contractors if a former official served in certain capacities or made certain decisions on behalf of the Government. However, the amended law only applies to services provided or decisions made on or after 1 January 1997, the effective date of the amended law.

Individuals who left the Government prior to 1 January 1997 are not covered by the amended law but are subject to the old procurement integrity rules. However, the old procurement integrity rules do not apply to anyone after 31 December 1998.

Under the amended law, a former agency official may not accept compensation from a contractor within a period of one year after such official:

- Served as the Procuring Contracting Officer (PCO), SSA, member of the Source Selection Evaluation Board (SSEB), or the chief of a financial or technical evaluation team. This applies for a procurement in which the contractor was selected for award of a contract in excess of $10 million.

- Served as the Program Manager, deputy Program Manager, or Administrative Contracting Officer (ACO) for a contract in excess of $10 million awarded to the contractor.

- Personally made a decision to:

    - Award a contract, subcontract, modification of a contract or subcontract, or a task or delivery order in excess of $10 million to the contractor

    - Establish overhead or other rates applicable to a contract or contracts for the contractor that are valued in excess of $10 million

    - Approve issuance to the contractor of a contract payment or payments in excess of $10 million

    - Pay or settle a claim with the contractor in excess of $10 million

Civil or administrative penalties can be imposed on both the former official and the contractor for violations of this prohibition.

A former official is not prohibited from accepting compensation from any division or affiliate of a contractor that does not produce the same or similar products or services as the entity of the contractor that is responsible for the contract. This restriction applies to sole source and competitive contracts in excess of $10 million.

Under the amended law, as under the old law, the DAEO (counsel) will give a safe harbor (i.e., ethics advisory) opinion to any employee or former employee who wishes to know whether the individual can accept compensation from a particular contractor subsequent to their separation from the Government.

In post-government employment restriction, the term “in excess of $10 million” means the value of a contract, including the estimated value of the contract at the time of award, and all options.

In addition to the post-employment restrictions mentioned above, a criminal statute in 18 USC 204, reference (f), contains several post-employment restrictions that apply to certain former employees including a basic prohibition for all that “No former employee shall knowingly, with the intent to influence, make any communication to or appearance before an employee of the United States on behalf of any other person in connection with a particular matter involving a specific party or parties in which he participated personally and substantially as an employee and in which the United States is a party or has a direct and substantial interest,” (5 CFR 2641, reference (g)). Employees should consult their ethics advisor for advice on specific post-employment restrictions that apply to them.

2.6 Determining Violations or Possible Violations

If the contracting officer receives or obtains information of a violation or possible violation of the law, that officer is required to determine whether it has an impact on the pending award or source selection. If the contracting officer determines that the violation or possible violation impacts the procurement, he/she is to forward this information to the HCA or his/her designee. The HCA who receives information that describes an actual or possible violation will review all relevant information and take appropriate action. The HCA may request information from appropriate parties about the violation. If the HCA determines that the Act has been violated, the HCA may direct the contracting officer to cancel the procurement, disqualify an offeror, or take other appropriate action.

2.7 Measures to Minimize Improper Conduct

Supervisory personnel should make the following available to all cognizant personnel: a copy of the FAR, DoD Directive 5500.07 (Standards of Conduct), reference (h), and the DoD Joint Ethics Regulation. Measures should be instituted to minimize prohibited conduct. SUPSHIP personnel must understand that violation of these regulations may result in disciplinary action and that violations of ethics statutes may result in civil and/or criminal penalties.

SUPSHIP should analyze and identify operations with particular potential for misconduct. When warranted, SUPSHIP should develop and execute a plan to minimize that potential misconduct. The following should be considered in formulating such a plan:

- increase surveillance of Government personnel at remote contractor's sites through unscheduled inspections of specific operations by military or civilian supervisors
- reduce tour length of Government personnel at remote sites
- rotate Government personnel among contractor sites
- require that preparation of a specification and inspection or acceptance of work under that specification be performed by different individuals
- audit work authorized on-site for actual completion
- audit accepted work for conformance to specifications
- audit Government Property Administrator's decisions on scrap, repairables, and mandatory returnables
- audit scrap materials sold to contractors by Government property administrators to ensure that materials are scrap
- be alert for signs of affluence not commensurate with the economic status of Government employees
- ensure all SUPSHIP personnel understand the command requirement for absolute adherence to the Standards of Conduct
- be observant for possible falsification of inspection records

2.8 Hotline Policies and Procedures for NAVSEA Shore Activities

NAVSEAINST 5041.1A, reference (i), applicable to all NAVSEA shore activities and detachments, encourages employees to use the chain of command in reporting fraud or relating improprieties. Otherwise, employees are encouraged to use the local Hotline, or NAVSEA, Navy, or DoD Hotlines.

A Hotline may be established at the discretion of the commanding officer. The instruction ensures that Hotline referrals are forwarded to NAVSEA, that complete records and controls are established and maintained, and that examiners are independent, impartial, and free of actual or perceived influence. The instruction gives procedures on publicizing information about Hotline programs and contacting appropriate authorities to respond to fraud or related improprieties.

2.9 Fraud, Waste, and Other Abuse

This section discusses coordination of fraud prevention, indicators of fraud, and actions against fraud.

2.9.1 Coordination for Fraud Prevention

DoD officials are responsible for the integrity of DoD contracts and must be prepared to take immediate action to protect Government integrity and interests when required. Although criminal cases often take years to complete, the DoD can take contractual and administrative actions on less evidence than needed for a criminal conviction. A coordinated approach to criminal, civil, contractual, and administrative actions permits the Government to expedite criminal proceedings. Early action and coordination are essential to ensure that no action taken will adversely affect the Government's ability to pursue any other available action.

The Secretary of Defense (SECDEF) issued DoDINST 7050.5, reference (j), to ensure establishment of a centralized point of coordination. This directive requires that the cognizant criminal investigative organizations inform the centralized points of coordination each time a significant fraud or corruption investigation in procurement or related activities is opened. Through this process, the Government will be able to use its variety of remedies in a more efficient and effective manner. In 2007, SECNAV established the Acquisition Integrity Office (AIO) to manage acquisition fraud matters within DoN. Per SECNAVINST 5430.92B, reference (k), AIO acts as the centralized organization within DoN to monitor and ensure the coordination of all criminal, civil, administrative, and contractual remedies for all cases, including investigations for fraud, waste, and related improprieties related to acquisition activities affecting the DoN. As the centralized organization for acquisition fraud matters, AIO is the single point of contact for all acquisition fraud matters. AIO partners with NCIS and the Naval Audit Service (NAS) to provide investigative support on acquisition fraud cases.

2.9.2 Indicators of Defective Pricing Fraud

Auditors assess pricing situations to determine if the circumstances surrounding any positive defective pricing are indicators of potential fraud. The auditor is responsible for finding and reporting indicators, not proving fraud. The Truth-in-Negotiations Act gives the Government the right to adjust the contract price when the price is based on inaccurate, incomplete, or out-of-date cost or pricing data. Defective pricing occurs when more current, complete, and accurate data exist, but are not provided to the negotiator.

The Defense Contract Audit Agency (DCAA) is responsible for performing reviews of selected contracts and subcontracts. The agency issues a defective pricing report when the auditor finds that the contract price was increased because the contractor did not follow the Truth-in-Negotiations Act. In the past, auditors concentrated on finding defective pricing and not assessing the reason for defective pricing and indications of fraud. The DCAA issued guidance by providing a list of indicators for assessing whether the situation is a sign of possible fraud that should be referred for investigation. The following are indicators of defective pricing fraud that demonstrate the need for further investigation:

- using a vendor other than the proposed vendor
- intentional failure to update cost or pricing data
- selective disclosure
- changed dates
- lost records
- lack of support for proposal
- change in make-versus-buy
- reporting a production break and increased cost when no actual break occurs
- combining items
- intentionally eliminating support to increase the proposal prices
- including inflated rates in the proposal, for example, for insurance or workers' compensation
- intentionally duplicating costs by proposing them as both direct and indirect
- indication of other fraudulent activities which would include material substitution, used or new, and certifying replacement of parts versus repair
- proposing obsolete items that are not needed
- continually failing to provide requested data
- not disclosing an excess material inventory that can be used in later contracts
- refusing to provide data which is requested for elements of proposed costs
- not disclosing actual data from completed work for follow-on contracts
- knowingly using an inter-company division to perform part of the contract but proposing purchase or vice versa
- ignoring established estimating practices
- suppressing studies that do not support the proposed costs
- commingling work orders to hide productivity improvements

- requesting an economic price adjustment clause when the material is already purchased
- submitting fictitious documents
- withholding information on batch purchases
- failing to disclose internal documents on vendor discounts
- failure of prime contractor to pay subcontractor

2.9.3 Actions against Fraudulent Activities

The Government has the right to insist on certain standards of responsibility and business integrity from its contractors and to take a variety of actions against contractors who engage in fraudulent activities. These actions described below are taken in conjunction with, after, or instead of criminal prosecution.

The Civil False Claims Act, 31 USC 3729, reference (l), can make a contractor liable for submission of a false claim to the Government and allows the Government to recover damages and penalties for false claims. The Government must suffer monetary damages to recover damages and must prove by a preponderance of evidence that the contractor knowingly submitted a false claim.

The Program Fraud Civil Remedies Act, 31 USC 3801 (as amended by Public Law 110-69), reference (m), allows Federal agencies to impose administrative penalties for certain false claims and statements.

The Contract Disputes Act, 41 USC 601-613, reference (n), makes a contractor liable for the amount of any unsupported part of a claim plus the costs of reviewing the claim if it is determined that it is a result of misrepresentation of fact or fraud.

The courts can order the forfeiture of the entire amount of a claim in which it judges the proof is based on contractor fraud or attempted fraud. A contractor risks losing the entire claim even if the claim is only partially based on fraud.

The contracting office has the right to terminate a contract for default because of a contractor's failure to perform. The Government also has the right to terminate a contract for default for other improper conduct, including violation of the Anti-Gratuities Clause (FAR 52.203-3) and 41 USC 51- 58, the Anti-Kickback Act of 1986, reference (o), which prohibits gifts by a subcontractor as inducement for award of the contract.

Rescission is a common law remedy in contracts which allows both parties to return to their position before the contract. This remedy may be used when fraud or corruption occurs in obtaining or awarding the contract. The Government may administratively rescind a contract when there has been a final conviction for bribery, gratuities, or conflicts of interest.

According to 41 USC 605, reference (p), contracting officials do not have the authority to pay claims where there is reasonable suspicion of fraud. Contracting officials should not take further action without coordination with the Department of Justice. The provisions of FAR 9.1 state that contracts may only be awarded to responsible contractors. Contractors must affirmatively demonstrate their responsibility, including a satisfactory record of integrity and business ethics.

By provisions of FAR 9.4, contractors may be prohibited from doing business with the Government for the commission of fraud. Suspension is an interim measure; a contractor may be suspended for up to 18 months while the investigation is underway. Debarment is a final determination of a contractor's non-responsibility and may be effective for up to three years. A contracting officer can recommend the debarment of companies and individuals and can impute, in recommending its debarment, the conduct of certain key individuals in that company. Contracting officials must forward reports of improper contractor activity to the suspension and debarment authority at the earliest opportunity to make suspension or debarment effective.

Under FAR 31.205-47, contractors who are found to have engaged in fraud on cost-type contracts are not entitled to recover legal and administrative costs incurred in unsuccessfully defending against Government action.

10 USC 2408, reference (q), provides guidelines on "Prohibition on Persons Convicted of Defense Contract-Related Felonies and Related Criminal Penalty on Defense Contractors". Among other things, the statute bars an individual convicted of fraud or any other felony arising from a contract with the DoD from working in management or a supervisory capacity on any defense contract.

Under 10 USC 2324, reference (r), a contractual penalty can be assessed when a contractor submits a claim for a direct or indirect cost when such a cost is specifically ruled unallowable by either statute or regulation. The statute also authorizes a penalty for the knowing submission of defective cost or pricing data.

2.9.4 Government Personnel

The Government has a variety of remedial actions to take against employees who collude with contractors in fraudulent conduct, including: termination, revocation of a contracting officer's warrant, recoupment of lost funds, and administrative penalties for conflicts of interest.

2.10 Managers' Internal Control Program (MICP)

OMB Circular A-123, Management's Responsibility for Internal Control, reference (s), states that "Management is responsible for establishing and maintaining internal controls to achieve the objectives of effective and efficient operations, reliable financial reporting, and compliance with applicable laws and regulations. Management shall consistently apply the internal control standards to meet each of the internal control objectives and to assess

internal control effectiveness." It requires that commands implement a system of internal controls to provide reasonable assurance that:

1. Programs achieve their intended results
2. Resource use is consistent with the agency mission
3. Programs and resources are protected from waste, fraud, and mismanagement
4. Laws and regulations are followed

NAVSEAINST 5200.13C, Management Control Program (MCP), reference (t), states NAVSEA policy on internal controls and requires that all commands establish Managers' Internal Control Programs (MICPs) to support commanders and managers in meeting the requirements of OMB Circular A-123. The MICP is a tool to evaluate and report on the effectiveness of internal controls throughout an organization and to identify and, when necessary, take corrective actions to remedy deficiencies. The establishment and verification of internal control effectiveness is essential for leadership to establish reasonable assurance that operational risks are mitigated and internal control deficiencies are promptly identified for corrective action.

The SUPSHIP Managers' Internal Control Program Manual, Appendix A, mandates establishment of a MICP at each SUPSHIP to support the Supervisor and managers in assessing operational risk, implementing and validating the effectiveness of internal controls, implementing corrective actions as internal control deficiencies are identified, and reporting on the effectiveness of internal controls. It also describes the minimum requirements for MICP execution for consistent application across SUPSHIP offices and to ensure that the Supervisors receive quality and consistent MICP products.

Appendix 2-A: SUPSHIP Managers' Internal Control Program (MCIP) Manual

Supervisor of Shipbuilding Managers' Internal Control Program (MICP) Manual

22 June 2015

Supervisor of Shipbuilding

Managers' Internal Control Program (MICP) Manual

Table of Contents

1. Purpose 2-16
2. Scope 2-16
3. Background 2-16
4. MICP Implementation 2-16
5. MICP Plan 2-17
6. Inventory of Assessable Units 2-18
7. Risk Assessment Process 2-19
8. Internal Control Assessment Documentation 2-21
9. Statement of Assurance 2-23
10. Metrics 2-25
11. SUPSHIP MICP Configuration Control Board (CCB) 2-25
Enclosure (1) – Sample AU Inventory 2-27
Enclosure (2) – Sample MICP Risk Assessment Form 2-28
Enclosure (3) – Sample Management Control Review 2-28
Enclosure (4) – Sample Management Control Review Corrective Action Plan 2-29
Enclosure (5) – Sample Statement of Assurance Certification Statement 2-30
Enclosure (6) – New AU Deficiency Form 2-32
Appendix A – SUPSHIP Common and Unique Assessable Units 2-34

References

(a) OMB Circular A-123, Management's Responsibility for Internal Control..... 2-16
(b) NAVSEA 5200.13C, Management Control Program 2-16
(c) DoDI 5010.4, Managers' Internal Control Program Procedures..... 2-16
(d) SECNAV 5200.35, DoN Managers' Internal Control Program 2-16

Tables

Table 1 – Levels of Inherent Risk and Control Risk 2-21

1. Purpose

This operating manual establishes the mandatory policies, procedures, and responsibilities for the implementation and administration of the Managers' Internal Control Program (MICP).

2. Scope

This manual is effective immediately and is applicable to all Supervisors of Shipbuilding, Conversion, and Repair, USN (SUPSHIPs). All locally issued SUPSHIP instructions establishing a MICP must make reference to this manual as a mandatory use document.

3. Background

a. OMB Circular A-123, Management's Responsibility for Internal Control, reference (a), states that "Management is responsible for establishing and maintaining internal controls to achieve the objectives of effective and efficient operations, reliable financial reporting, and compliance with applicable laws and regulations. Management shall consistently apply the internal control standards to meet each of the internal control objectives and to assess internal control effectiveness." It requires that commands implement a system of internal controls to provide reasonable assurance that:

1) Programs achieve their intended results
2) Resource use is consistent with the agency mission
3) Programs and resources are protected from waste, fraud, and mismanagement
4) Laws and regulations are followed

b. Per NAVSEA 5200.13C, Management Control Program, reference (b), it is NAVSEA policy that all commands establish MICPs to support commanders and managers in meeting these responsibilities. The MICP is a tool to evaluate and report on the effectiveness of internal controls throughout their organizations and take corrective actions to remedy deficiencies when necessary. Other tools include, but are not limited to, SUPSHIP Command Evaluation Internal Reviews, external agency audits, and self-assessments. The establishment and verification of internal control effectiveness is essential for leadership to establish reasonable assurance that operational risks are mitigated and internal control deficiencies are promptly identified for corrective action. Further MICP guidance is provided by DoDI 5010.4, Managers' Internal Control Program Procedures, reference (c), and SECNAV 5200.35, DoN Managers' Internal Control Program, reference (d).

4. MICP Implementation

a. Each SUPSHIP shall implement a system of internal controls to provide reasonable assurance that the following objectives are met:

1) Effective and efficient operations

2) Reliable financial reporting

3) Compliance with applicable laws and regulations

b. Each SUPSHIP shall implement an MICP to support commanders and managers in assessing operational risk, identifying internal controls necessary to mitigate these risks, validating the implementation and effectiveness of these internal controls, implementing corrective actions as internal control deficiencies are found, and reporting on the effectiveness of internal controls.

c. Each SUPSHIP MICP shall consist of the following key components:

1) MICP Plan

2) Inventory of Assessable Units

3) Risk Assessment Process

4) Internal Control Assessment Documentation

5) Annual Statement of Assurance (SOA)

6) Program and Performance Metrics

5. MICP Plan

a. The MICP Plan is an executive summary of a command's MICP. The plan captures the organization's approach to implementing an effective internal control program. As required by SECNAV M-5200.35, DoN Managers' Internal Control Manual, the MICP plan shall be updated annually and must identify the following key elements:

1) The organization's senior official overseeing the MICP, the MIC coordinator and the alternate MIC coordinator

2) An overview of the MICP as related to the GAO standards for internal control

3) A description of risk assessment methodology

4) A description of monitoring/internal control assessment methodology

5) A description of how to develop and track corrective action plans

6) MIC training efforts

7) The date the plan was last updated

b. An MICP Plan development guide is provided in Example 7 of SECNAV M-5200.35. The guide outlines the key information requirements for each section to provide assistance in developing a robust plan. This format shall be used by each SUPSHIP MIC Program Coordinator to create the organization's plan, which must be updated at least annually.

6. Inventory of Assessable Units

a. NAVSEAINST 5200.13C requires that each MICP Coordinator establish and maintain an inventory of assessable units (AUs) for the activity's key financial and operational processes, and defines an assessable unit as “Any organizational, functional, programmatic, or other applicable subdivision capable of being evaluated by management control assessment procedures. An assessable unit should be a subdivision of an organization that ensures a reasonable span of management control to allow for adequate analysis.” SECNAV M-5200.35 states that “An assessable unit must have clear limits or boundaries and be identifiable to a specific responsible manager. Further, it must be small enough to provide reasonable assurance of adequate management controls but large enough that any detected material weakness has the potential to impact the mission of the organization. Assessable units must constitute the entire organization. This means that every part of the organization must be represented by one of the assessable units in the organization’s inventory of assessable units.”

b. SUPSHIP MICP Coordinators will collectively develop and maintain an AU Inventory consisting of AU’s common to all SUPSHIPs. Each SUPSHIP MICP must include and account for these common AU’s and their associated internal controls in their command’s MICP. SUPSHIP MICP Coordinators must also maintain a separate AU Inventory of additional AU’s that are unique to one or more SUPSHIPs (e.g., SUBSAFE Program). Appendix A provides a current listing of all SUPSHIP common and unique AUs.

c. AUs must properly reflect the organization and be updated as necessary to reflect changes within the organization and/or its functional managers. At a minimum, the SUPSHIP Common AU inventory must be reviewed semi-annually to ensure its accuracy. Each SUPSHIP command unique AU inventory must be reviewed annually to ensure its accuracy.

d. The SUPSHIP Common AU Inventory and unique AU inventories will contain, at a minimum, the following data:

- AU name
- AU description
- AU risk assessment results
- AU manager name and organization code
- Applicable instruction or guidance documentation
- List of known operational risks
- List of internal controls necessary to mitigate known operational risks

- Reference to management control review or alternative management control review used to validate the implementation and effectiveness of each identified control, as well as the date the effort was performed

- Identification of corrective actions taken to address identified non-compliances or deficiencies

e. The template provided in enclosure (1) shall be utilized by each SUPSHIP MIC Coordinator to document the command AU inventory.

f. The above data fields should be populated through ongoing collaboration between MIC Program Coordinators and AU Managers. MICP Coordinators should meet with AU Managers at least annually to review and update these data fields, including validating that the existing AU Inventory accurately reflects the command's current workload, reviewing and refreshing known risks and internal controls, and identifying ongoing or future efforts which may serve as Alternative Management Control Reviews (AMCRs) as defined in paragraph 8(d) of this manual.

7. Risk Assessment Process

a. The MICP Risk Assessment process is intended to identify the likelihood and consequence of a process control failure that may impact the organization in meeting its objectives. Designated AU Managers will complete AU Risk Assessments in accordance with paragraph 7(c) and 7(d) of this manual. When assessing the likelihood of process control failures, AU Managers should take into account the adequacy and accuracy of AU process documentation, personnel and budgetary resources available to execute these processes, the extent to which these processes are reviewed, and the adequacy of corrective action procedures for identified deficiencies. When assessing the consequence of process control failures, AU Managers should consider the potential visibility of a control failure, resulting work stoppage issues, impact to personnel or equipment safety, disciplinary actions, and the extent to which the impact of the control failure will be known or contained.

b. When completing AU risk assessments, AU Managers should also consider uncorrected findings from audits, inspections, or internal reviews and their potential effect or impact on the ability of the command to meet its mission.

c. AU Risk Assessments should be performed at least once annually. AU Risk Assessments should also be completed in the following circumstances:

- When a new AU Manager is assigned

- When a new AU is added to the command AU inventory

- When the AU experiences a significant change in policies and procedures

- As directed by the commanding officer

d. All SUPSHIP AU Managers will utilize the template in enclosure (2) to perform the AU Risk Assessment. AU Managers or designated Subject Matter Experts (SMEs) should complete the Risk Assessment Form. Risk Assessments performed by someone other than the designated AU Manager must be approved by the designated AU Manager.

e. MICP Coordinators will utilize AU Risk Assessment results to prioritize the MICP effort, including:

- Coordinating identification of AUs that are at high risk for fraud, waste, abuse, and/or mismanagement
- Identifying AU's where management control improvement is required to reduce process control failure likelihood
- Identifying opportunities for a short-notice Management Control Test (see para 8.g)
- Identify AU candidates for inclusion in the Annual Command Evaluation and Review Plan

f. AU Managers, in collaboration with MICP Coordinators, will identify the level of inherent risk and control risk associated with each identified risk and management control within their applicable AU's. The inherent risk and control risk for each identified risk and management control will be subjectively categorized as low, medium, or high. Inherent risk is defined by SECNAV M-5200.35 as the susceptibility to a potential hazard, assuming there are no related specific control activities. Control risk is defined by SECNAV M-5200.35 as the risk that a process failure will not be prevented or detected by the management control. For example, a management control may be designed to prevent or detect the misuse of a government purchase card. The control risk is that the management control will not prevent or detect misuse of a government purchase card. Table 1 below should be used as a guide for determining inherent and control risk levels.

Table 1 – Levels of Inherent Risk and Control Risk

Risk	Low	Moderate	High
Inherent	AU Manager believes the potential risk does not have severe consequences and is unlikely to occur.	AU Manager believes the potential risk has severe consequences or is likely to occur.	AU Manager believes the potential risk has severe consequences and is likely to occur.
Control	AU Manager believes the controls in place will prevent or detect a process control failure.	AU Manager believes controls in place will more likely than not prevent or detect a process control failure.	AU Manager believes the controls in place are unlikely to prevent or detect a process control failure.

8. Internal Control Assessment Documentation

a. In accordance with SECNAV M-5200.35, once internal controls are in place, management shall actively monitor those controls to ensure that they are functioning correctly and effectively mitigating the associated risk. Control assessment documentation can include either Management Control Review (MCR) results or Alternative Management Control Review (AMCR) results.

b. An MCR is a documented evaluation on the effectiveness of an internal control in meeting the control objective.

c. MCRs conducted at SUPSHIPs will be documented using the template provided in enclosure (3) and will include the following information:

- Assessable Unit Name
- Identified Risk
- Management Control in place to mitigate identified risk
- Existing Control Risk Level
  - Low, Medium, High
- Control Objective
  - What is the purpose of the control?
- Control Type
  - Manual or Automated?
- Control Design
  - Detective: Detect undesirable events that have occurred.
  - Corrective: Restore a system to expected state.
  - Preventive: Deter undesirable events from occurring.
  - Directive: Cause desirable event to occur.
  - Separation of Duties: Restrict authority of one person.

- Control Frequency
  - How often is this control function utilized?
- Test Method
  - What actions will be taken to determine the effectiveness of the control?
- Testing Period
  - Timeframe of information under review
- Criteria for Effectiveness
  - What guidelines will be used to determine the effectiveness of the management control under review?
- Test Result Summary
  - Explain Review findings. ***If the criteria for effectiveness was not met, note that a corrective action plan is required.***
- New Control Risk Level
  - Low, Medium, High

d. Alternative Management Control Review (AMCR), as defined by NAVSEAINST 5200.13C, is a process developed for other organizational purposes which determines whether or not a management control is operating effectively. Alternative Management Control reviews may include, but are not limited to, the following:

- SUPSHIP Command Evaluation and Review Office Internal Reviews
- Results of audits performed by external agencies including Government Accountability Office, DOD Inspector General, and Naval Audit Service
- NAVSEA Command Compliance Inspections
- Command Investigations
- Internal audits or self-assessments

e. Every assessable unit should be subject to at least one MCR annually, unless all identified management controls are reviewed as a function of an Alternative Management Control Review. An MCR performed by an AU Manager does not need to include all controls each year. The scope of the MCR is based on management's judgment, and should focus first on areas where control risk is identified as medium or high.

f. All identified management controls will be rated as having a low, moderate, or high control risk. Using the results of a MCR or an AMCR, all management control risks should be reclassified. When MCRs or AMCRs find controls to be effective, the reclassified control risk should be classified as medium or low. If the results of a MCR or AMCR find the management control to be ineffective, the control should be reclassified as having a high control risk. In accordance with paragraph 8(i) of this manual, a corrective action plan, found in enclosure (4), should be developed for those controls that are reclassified as having a high control risk.

g. MICP Coordinators will conduct short-notice MCRs on an ongoing basis. In addition to assessing the command's compliance with applicable regulations and adequacy of internal controls, short-notice MCRs will indicate the command's level of audit readiness. Short-notice Management Control Reviews will also be documented using enclosure (3). A minimum of three short-notice MCRs will be conducted quarterly by each SUPSHIP MICP Coordinator.

h. All AMCRs and MCRs, whether conducted by the assigned AU Manager or the MIC Program Coordinator, will be identified as a management control validation effort in the Command's AU inventory. To ensure that all internal control validation efforts are properly accounted for, and to avoid any potential duplicity of control validation efforts, all AMCR documentation, including audit reports and self-assessment results, should be provided by the cognizant AU Manager to the MIC Coordinator as it becomes available.

i. All Management Control Reviews that identify internal control deficiencies require corrective action implementation by the responsible AU Manager. Plans for corrective actions will be documented and approved by the applicable AU Manager using the Corrective Action Plan template in enclosure (4).

9. Statement of Assurance

a. The Statement of Assurance (SOA) is a command-wide annual report that certifies the commanding officer's level of reasonable assurance as to the overall adequacy and effectiveness of internal controls within the command. The SOA is also used to disclose known management control accomplishments and deficiencies identified using MIC Program processes, and to describe plans and schedules to correct any reported management control deficiencies. The SOA reporting period begins 1 July and ends 30 June.

b. The submission of the command's SOA will be coordinated by the command MIC Program Coordinator, and developed using the SOA Tool found at: https://www.fmosystems.navy.mil/soa/login/index.cfm?fuseAction=dspLogin **

c. The SOA submission will include the following:

1) Cover Memorandum. A cover memorandum signed by the SUPSHIP commanding officer shall provide senior management's assessment as to whether there is reasonable assurance that internal controls are in place and operating effectively. In addition, the SOA must certify to the number of management control reviews that are scheduled for the upcoming MIC year and the number of management control reviews completed during the previous MIC year. The certification must take one of the following three forms:

(a) An **unqualified statement of assurance** (reasonable assurance with no material weaknesses reported). Each unqualified statement shall provide a firm

** Denotes secure website requiring NMCI/CAC access

basis for that position, which the Agency Head (or principal deputy) will summarize in the cover memorandum.

(b) A **qualified statement of assurance** (reasonable assurance with exception of one or more material weaknesses noted). The cover memorandum must cite the material weaknesses in internal controls that preclude an unqualified statement.

(c) A **statement of no assurance** (no reasonable assurance because no assessments conducted or the noted material weaknesses are pervasive). The commanding officer shall provide an extensive rationale for this position.

2) Accomplishments. This is a brief summary of the most significant accomplishments and actions taken by the command during the SOA reporting period to strengthen internal controls. The accomplishments shall be ordered by significance with the most significant accomplishments listed first. Management control accomplishments may include improved compliance with laws and regulations, improvements in protection of government property, improved efficiency of operations, and increased conservation of command resources.

3) Listing of all internal control deficiencies. This will include all uncorrected and corrected Material Weaknesses (MW), Reportable Conditions (RC), and Items to be Revisited (IR). An MW is a management control deficiency, or collection of management control deficiencies, which is significant enough to report to the next higher level. The determination is a management judgment as to whether a weakness is material. An MW impairs or may impair the ability of an organization to fulfill its mission or operational objective. An RC is a control deficiency, or combination of control deficiencies, that adversely affects the ability to meet mission objectives but are not deemed by the Head of the Component as serious enough to report as material weaknesses. An IR is a management control deficiency where insufficient data exists to determine whether the deficiency constitutes an MW or RC.

4) Detailed narrative descriptions of all uncorrected MW, RC, and IR including the plans and schedules for corrective actions. This should include those identified during the current year and those disclosed in prior years with updated corrective action information.

5) Detailed narrative descriptions of all corrected MWs, RCs, and IRs identified during prior reporting periods.

d. All AU Managers will provide input to the command SOA by submitting a signed memorandum providing reasonable assurance that the system of internal controls, applicable to their assigned AU's, in place during the current SOA reporting period are adequate and effective. The template to be used by all AU Managers is contained in enclosure (5). Page 2 of enclosure (5) must be completed for all AU's under the cognizance of each AU Manager. Internal Control accomplishments and deficiencies that meet the definition in paragraph 9(C)(2) and 9(c)(3) respectively should be described in detail.

e. MICP Coordinators, through collaboration with AU Managers and the commanding officer, will determine which internal control accomplishments and deficiencies constitute inclusion in the annual SOA submission. MICP Coordinators, using input from AU managers, must complete enclosure (6) for all deficiencies identified in the annual SOA submission.

10. Metrics

a. MICP Coordinators will monitor and document MICP Metrics and MICP Performance Metrics. All metrics will be shared among SUPSHIP community MICP Coordinators on a quarterly basis as described by paragraph 11 (d) of this manual.

b. Program metrics will identify the level to which MICP requirements have been deployed and implemented across each command. At a minimum, each MICP Coordinator will document the following program metrics on a quarterly basis:

1) Percentage of AUs in which an AU Manager has been assigned from both the SUPSHIP Common AU Inventory and Unique AU Inventories

2) Percentage of AU Managers who have received current MIC Program training

3) Percentage of risk assessments performed at the AU level and control level

c. MICP performance metrics will provide information on the effectiveness of the MICP in improving the command's level of compliance with applicable regulations and the command's level of audit readiness. Each MICP Coordinator will document the following performance metrics:

1) Compliance Inspection Results. MICP Coordinators will document the total number of non-compliances identified by the NAVSEA Compliance Inspection on a triennial basis.

2) MCR Results. On a quarterly basis, MICP Coordinators will develop metrics using the results of MCR's conducted by MICP Coordinators on short notice, and those conducted by AU Managers. This should include the total number of MCRs performed, the percentage of reviews where controls were found to be implemented and effective, and the percentage of reviews where controls were found inadequate and/or ineffective and required corrective action. Metrics for MCRs conducted by the MICP Coordinator should be maintained separately from those conducted by AU managers.

11. SUPSHIP MICP Configuration Control Board (CCB)

a. This manual establishes the SUPSHIP MICP Configuration Control Board (CCB). The MICP CCB will be chaired by NAVSEA 04Z and CCB members will include all SUPSHIP MICP Coordinators. Configuration control is essential to ensuring that policies, procedures, methodologies and forms usage mandated by this manual are not deviated from without prior review and approval by the SUPSHIP MICP CCB.

b. SUPSHIP MICP CCB concurrence and approval is required for the following:

- Deviation from use of standardized documentation

- Modifications to Common AU Inventory
- Modifications to Common Metrics
- Deviation from any other procedures and methodologies mandated by this manual

c. Proposed changes to this manual should be submitted to the SUPSHIP MICP CCB Board and all team members for review, discussion, and approval prior to implementation of any proposed changes. Control of proposed changes is performed under the auspices of SUPSHIP MICP CCB, who will consider all impacts of incorporating the recommended change prior to approval.

d. The SUPSHIP MICP CCB will conduct quarterly teleconferences to discuss MICP changes which require CCB approval as described in paragraph 11(b) of this manual, to discuss common metrics as described in paragraph 10 of this manual, and to address other related SUPSHIP Community MICP matters.

Enclosure (1) – Sample AU Inventory

Managers Internal Control Program - Assessable Unit (AU) Inventory

CODE	AU MANAGER	ASSESSABLE UNIT NAME	ASSESSABLE UNIT DEFINITION	RISK LEVEL	INSTRUCTION / GUIDANCE	Risks	Mgt Assigned Inherent Risk Level	Mgt Assigned Control Risk Level	Internal Controls	Validation	Date Conducted	New Control Risk Level	Correcttive Action Needed?
	POC	MINOR PROPERTY PROGRAM - ADMINISTRATION AND ACCOUNTING PROCESS	Policies and procedures for the custody, accounting and disposition of United States Government property having a unit acquisition cost of $5,000 or more as well as items that are below $5,000 and are senstative, classified, or meet all of the following criteria: (1) pilferable; (2) critical to the activitues mission; (3) hard to repair or replace. DPAS Inventory Record Process	L	SUPSHIPGROTINST 7320.2J	Records of property are not created in a timely manner to ensure accountability upon property receipt (not in DPAS in seven days).	Low	Low	In accordance with SUPSHIPGROTINST7320.2K, the PPM will be the designated recipient of all personal property purchases. This will ensure the PPM obtains the property and associated documentation immeduiaetely upon receipt and is able to create an accountable record in a timely manner.	CER Review 11-16	1/12/2012	High	Yes, followup tracked via CER standards.
						Physical Property is not adequately marked and cannot be identified as needed to perform inventories.	Low	Low	All items entered into DPAS are required to be tagged as property of the US Government. The assigned serial number will be used to perform inventories as required.	CER Review 11-16	1/12/2012	High	Yes, followup tracked via CER standards.
						Property is not signed out to custodian to assign accountability.	Low	Low	All property must be signed out to a custodian by the PPM, and documentation supporting this is maintained on file.	CER Review 11-16	1/12/2012	High	Yes, followup tracked via CER standards.
						Personal Property spot checks or other routine surveillance is not conducted or conducted without independence, therefore increasing the liklihood that stolen, lost, or misused equipment is not accounted for.	Low	Low	100% floor:book and book:floor inventory completed triennially and supported by documentation identifiying who conducted the review and the results of review (to include adjsutments made).	CER Review 11-16	1/12/2012	High	Yes, followup tracked via CER standards.
						Personnel are not assigned and designated to serve as Personal Property Managers to ensure implementation, execution, and accountability for Personal Property program requirements.	Low	Low	Letters of designation must be maintained on file to assigned Personal Property Managers.	CER Review 11-16	1/12/2012	Low	No
						Personnel are not assigned and designated to serve as personal property custodians, as needed to ensure that all personal property has an individual assigned to safeguard from theft, loss, or damage.	Low	Low	Letters of designation must be maintained on file to assigned Personal Property Custodians.	CER Review 11-16	1/12/2012	High	Yes, followup tracked via CER standards.

Enclosure (2) – Sample MICP Risk Assessment Form

SUPSHIP MANAGER'S INTERNAL CONTROL PROGRAM RISK ASSESSMENT FORM

Assesable Unit Title _____

Risk Assessment Worksheet Part 1: Determine Likelihood of Process Control Failure

This worksheet helps predict the likelihood of process control failure in five categories of failure causes. For each category, read the table cells and select a whole number which best describes the contribution of that category in predicting failure.

	Score 1 or 2	Score 2, 3, or 4	Score 4 or 5	Score
Documentation	Process is well documented, controls are usable and understandable.	Process is documented and addresses needed controls, but is not current, complete, is confusing or difficult to understand.	Process is not documented. AU is documented but does not provide needed controls.	
Responsibilities	Most people know their responsibilities are adequately trained, have needed resources to accomplish responsibilities.	Some key people are unclear about their responsibilities or have received training of questionable value. Resources are barely adequate.	Most people do not know their responsibilities are inadequately trained, or do not have needed resources to accomplish responsibilities.	
Internal Reviews	Controls and processes receive frequent review by the process owner.	Some reviews are done, but they are not well understood, and have minimal value.	Controls and processes receive infrequent or no review.	
Non-Compliance	Non-compliance instances have been documented, process exists and is used to find them, compliance exists and is used.	Some non-compliance instances are documented, criteria is used but is not clear; process is not well established.	No non-compliance instances have been documented, no process exists or is used to find them, no compliance criteria exists or is used.	
Corrective Action	Corrective actions have been identified, action has been taken, validation has been performed.	Some corrective actions have been identified, but follow-up is poor or spotty.	Corrective actions have not been identified, action has not been taken, no validation has been performed.	
			Liklihood :	#DIV/0!

Risk Assessment Worksheet Part 2: Determine Consequence of Process Control Failure

This worksheet helps predict the consequence of process control failure by considering five categories of undesirable outcome. For each category, read the table cells and select the rating which best describes the effect of an internal control failure.

	Score 1 or 2	Score 2, 3, or 4	Score 4 or 5	Score
Visibility	A Division-level (or lower) report of corrective action is likely adequate.	A formal Department- or Division level internal critique is likely.	A formal command-level internal critique, or formal external evaluation is likely.	
Work Stoppage	Process would be briefly stopped or not stopped with little or no cost impact.	Process would be briefly or partially stopped with limited or minor cost impact.	Process would be completely stopped with broad impact.	
Containment	Extent of faulty product or information spill would be known and limited. Costs of containment would be small.	Extent of faulty product or information spill would be moderate or unknown for a short time. Costs of containment would be moderate.	Extent of faulty product or information spill would be broad or unknown for a long time. Costs of containment would be great.	
Discipline	Disciplinary action would be limited to few people, or no disciplinary action.	Disciplinary action would be moderate and limited to few people.	Disciplinary action would be serious. Many people would be disciplined.	
Safety	Few or no people would incur minor injuries only, little or no equipment/plant damage.	Some people would incur minor injuries, some people could incur moderate injuries, some equipment/plant damage.	Some people would incur serious injury, many people would incur moderate injury, serious equipment/plant damage.	
			Consequence :	#DIV/0!

Performed By: _____
Print Name Signature Date

Approved By: _____
Print Name Signature Date

Enclosure (3) – Sample Management Control Review

Management Control Review	
Organization:	
Department:	
Preparer:	
Phone:	Email:
Assessable Unit:	DAWIA
Risk:	DAWIA certification is issued to employee's who have not met all certification requirements.
Control:	A two-level DAWIA Certification request review is established. The SUPSHIP Groton DAWIA Coordinator and the Final Approving Authority for the applicable career field review the employee's educational, experience, and DAU training accomplishments prior to approving DAWIA certification requests.
Existing Control Risk Level:	Low
Control Objective:	To ensure that employee issued DAWIA Certification have first completed all educational, experience, and training requirements.
Control Type:	Manual
Control Design:	Detective
Control Frequency:	Continuous
Test Method:	Review DAU Transcripts for all individuals who have received DAWIA certification in the past six months. Ensure that 100% of these employees have completed the required experience, educational, and training requirements.
Testing Period:	Q3 and Q4 FY 2011
Criteria for Effectiveness:	100% of employees sampled must have completed all the required educational, experience, and training requirements prior to approval of DAWIA career field certification request.
Test Result Summary:	
New Control Risk Level:	High

Testing conducted by:

Name (Print) _____ Signature _____

Results acknowledged by:

Name (Print) Signature

SAMPLE

Enclosure (4) – Sample Management Control Review Corrective Action Plan

Management Control Review Corrective Action Plan		
Organization:		
Department:		
Preparer:		
Phone:	Email:	
Assessable Unit:	DAWIA	
Risk:	DAWIA certification is issued to employee's who have not met all certification requirements.	
Control:	A two-level DAWIA Certification request review is established. The SUPSHIP Groton DAWIA Coordinator and the Final Approving Authority for the applicable career field review the employee's educational, experience, and DAU training accomplishments prior to approving DAWIA certification requests.	
Existing Control Risk Level:	High	
Control Objective:	To ensure that employee issued DAWIA Certification have first completed all educational, experience, and training requirements.	
Control Type:	Manual	
Control Design:	Detective	
Control Frequency:	Continuous	
Control Deficiency:	Of the 14 DAWIA Career Field Certifications issued during Q3 and Q4 FY11, only 8 individuals completed the required experience, educational, and training requirements prior to receipt of certification.	
Root Cause:	The SUPSHIP Groton DAWIA Coordinator and Final Approving Authorities were not revieiwing employee accomplishments prior to approval of career field certification.	
Plan for Corrective Action	The SUPSHIP Groton Admin Department Head will provide on the job training for the DAWIA Coordinator and Final Approving Authorities to ensure these individual understand all requirements needed prior to approval of certification requests.	
Estimated Completion Date:	Q2 FY12	
Approved by:		
Name (Print):	**Signature:**	

SAMPLE

Enclosure (5) – Sample Statement of Assurance Certification Statement

30 March 2015

MEMORANDUM

From: AU Manager
To: Code 100
Via: *Code 100B*

Subj: STATEMENT OF ASSURANCE CERTIFICATION STATEMENT

Encl: (1) Code xxx Assessable Units
(2) New Code xxx Assessable Unit Deficiencies

1. I have reviewed the system of internal controls in effect for the period of 1 April 2014 through 30 March 2015 for Code xxx applicable assessable units identified in enclosure (1). All internal control accomplishments and internal control deficiencies identified between 1 April 2014 and 30 March 2015 are contained in enclosure (1). Plans for corrective action, where applicable, are also contained in enclosure (1).

2. With the exception of any deficiencies identified in enclosures (1) and (2), I have reasonable assurance that internal controls are in place and operating effectively, and that the objectives of the Federal Financial Managers' Integrity Act were achieved.

3. Information to support this certification statement was derived from reviews, audits, inspections, observations, knowledge gained from daily operations of programs, and/or other methods that evaluate internal controls.

J. D. Doe

Assessable Unit Name

ACQUISITION STAFFING (DAWIA) TRAINING PROCESS

Description: The process of providing for all SUPSHIP acquisition training and employee development.

Standards: DON DAWIA Operating Guide

2012-2013 Internal Control Accomplishments

(Explain Accomplishments Below)

2012-2013 Internal Control Deficiencies

(Explain Deficiency Below)

Plans for Corrective Action

(Explain plans to correct above deficiencies)

Enclosure (6) – New AU Deficiency Form

1. Title of Deficiency

2. Description of Deficiency

3. Year Identified

4. Original Targeted Correction Date

5. Current Target Date

6. Validation Process

7. Results Indicator

8. Source(s) Identifying Deficiency

9. Planned Milestones:

a. Current Fiscal Year

b. Next Fiscal Year

Appendix A – SUPSHIP Common and Unique Assessable Units

SUPSHIP Common Assessable Units

	PROCUREMENT
1	Small Purchase Program - Purchase Card Process
	CONTRACT ADMINISTRATION
2	Contract Management - Contract Administration Process
3	Contract Management - Subcontractor Surveillance and Evaluation of Contractor Purchasing Systems
4	Contractor Performance Assessment Rating System (CPARS)
5	Earned Value Management
6	Past Performance Information Retrieval System – Statistical Reporting (PPIRS)
7	Product Data Reporting and Evaluation Program (PDREP)
8	Project Management
9	Quality Assurance (QA) Program
10	Rate Analysis
11	Technical Analysis Review
	MANUFACTURING, MAINTENANCE, AND REPAIR
12	Technical Authority
13	Testing/Certification
	PROPERTY MANAGEMENT
14	Government Property - Program Administration
15	Minor Property Program - Administration and Accounting Process

	COMMUNICATIONS / INTELLIGENCE / SECURITY
16	Telecommunications
17	Security Programs - Information/Industrial Security Process
18	Security Programs - Communications Security Process
19	Security Programs - Continuity of Operations Planning (COOP)
20	Security Programs - Force Protection and Physical Security Process
21	Security Programs - Operational Security Process
22	Security Programs - Personnel Security Process
23	Security Programs - Courier Program Administration
	INFORMATION TECHNOLOGY
24	Information Technology - Hardware/Software Management Program
25	Information Technology - Information Assurance Program
26	Information Technology - Network Management
	PERSONNEL AND/OR ORGANIZATION MANAGEMENT
27	Employee Development Program - Acquisition Staffing (DAWIA) Training Process
28	Employee Development Program - Personnel Management Process
29	Military Programs

	COMPTROLLER AND/OR RESOURCE MANAGEMENT
30	Financial Management Program - Official Travel Program
31	Financial Management Program - Civilian Payroll Process (Timekeeping)

32	Financial Management Program - Certification of Invoices
33	Financial Management (General)
	SUPPORT SERVICES
34	Administrative Support Program - Records Management
35	Command Evaluation and Review Program - Audit Liaison and Follow-Up Process
36	Command Evaluation and Review Program - Hotline Reporting Process
37	Command Evaluation and Review Program - Internal Review Process
38	Freedom of Information
39	Managers' Internal Control Program (MICP) - Administration Process
40	Privacy Act Protection Process
41	Safety Program - Environmental Safety and Health Process
42	Standards of Conduct Process
	OTHER (PRIMARILY TRANSPORTATION)
43	Government Vehicle Administration

SUPSHIP Unique Assessable Units

	SUPSHIP BATH
1	Small Business Program
2	Dry Dock Operations
3	Logistics Support Management
4	Classified Hardware Control
5	Military SAPR

6	Military Command Managed Equal Opportunity
7	Military Physical Readiness Program
8	Military Urinalysis Program
9	Military MWR
10	Transportation Incentive Program (TIP)
11	Tech Authority

	SUPSHIP GROTON
1	SUBSAFE/Deep Submergence/Fly-by-Wire Ship Control System Programs
2	Administrative Support Program – Message Usage and Handling Process
3	Civilian Employee Training and Career Development
4	Employee Development Program – Award Process
5	Information Technology Program – Support Services Process
6	Technical Support Management (TSM) System
7	Policy and Procedures Relating to Follow-Up on Contract Audit Reports
8	Transportation Incentive Program (TIP)

	SUPSHIP GULF COAST
1	Records Management
2	Asset Management
3	Military Personnel Programs

	SUPSHIP NEWPORT NEWS
1	Service Contracting
2	Undefinitized Contract Actions
3	Asset Management
4	Information Technology (IT) Security Implementation
5	Personally Identifiable Information (PII) - Information Assurance
6	Sexual Assault
7	Employees Activity Association
8	Morale, Welfare, and Recreation (MWR) Program
9	Transportation Incentive Program (TIP)
10	Policy and Procedures Relating to Follow-Up Contract Audit Reports
11	SUBSAFE/Deep Submergence/Fly-By-Wire Ship Control System Program
12	Civilian Employee Training and Career Development
13	Legal Review and Assistance

Appendix 2-B: Acronyms

ACO	Administrative Contracting Officer
AIO	Acquisition Integrity Office
AMCR	Alternative Management Control Review
AU	Assessable Unit
CCB	Configuration Control Board
CFR	Code Of Federal Regulations
DAEO	Designated Agency Ethics Official
DCAA	Defense Contract Audit Agency
DoD	Department of Defense
DoDD	Department of Defense Directive
DoN	Department of the Navy
FAR	Federal Acquisition Regulations
HCA	Head of the Contracting Activity
IR	Item to be Revisited
MCR	Management Control Review
MICP	Managers' Internal Control Program
MW	Material Weakness
NAS	Naval Audit Service
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction
NCIS	Naval Criminal Investigative Service
OMB	Office of Management and Budget
PCO	Procuring Contracting Officer

PL	Public Law
RC	Reportable Condition
SOA	Statement of Assurance
SECDEF	Secretary of Defense
SECNAVINST	Secretary of Navy Instruction
SSA	Source Selection Authority
SSEB	Source Selection Evaluation Board
USC	United States Code

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Chapter 3 – Contracting and Contract Administration

Table of Contents

3.1 Introduction 3-9

3.2 SUPSHIP Responsibilities 3-9
3.2.1 Contract Administration Services (CAS) 3-9
3.2.1.1 Other DoD CAS Responsibilities 3-11
3.2.2 Non-CAS Responsibilities 3-11

3.3 Contracting Officer Authority and Responsibilities 3-11
3.3.1.1 Authorized Officials 3-12
3.3.1.2 Procuring Contracting Officer / Administrative Contracting Officer Relationship 3-13
3.3.1.3 Contracting Officer's Representatives (CORs) 3-13
3.3.1.4 Typical Contracting Officer's Representative (COR) Duties at SUPSHIP 3-14
3.3.1.5 Actual Authority Required 3-14
3.3.1.6 Implied Authority 3-15
3.3.1.7 Contracting Officer/COR Relationship 3-15

3.4 Overview of the Federal Acquisition Process 3-16
3.4.1 Procurement from Private or Government Sources 3-16
3.4.2 Contracting Techniques 3-16
3.4.3 General Procurement Statutes 3-16
3.4.4 Procurement Regulations 3-16
3.4.4.1 Federal Acquisition Regulation (FAR) 3-17
3.4.4.2 Department of Defense Federal Acquisition Regulation Supplement (DFARS) 3-17
3.4.4.2.1 DFARS Procedures, Guidance, and Information (PGI) 3-17
3.4.4.3 Navy Marine Corp Acquisition Regulation Supplement 3-18
3.4.4.4 NAVSEA Contracts Handbook 3-18
3.4.4.5 Other Navy Publications 3-18
3.4.4.6 Command Publications 3-18
3.4.4.7 Field Instructions and Notices 3-19
3.4.4.8 Waiver of Regulations and Directives 3-19
3.4.4.9 Impact of Statutes and Regulations 3-19

3.5 Contract and Budget Authority 3-19
3.5.1.1 Statutory Authorization 3-19
3.5.1.2 Budget Authority 3-19
3.5.1.3 Authorization of Appropriations 3-20

3.6 Contracts and Agreements 3-20

3.6.1 Types of Contracts 3-22
3.6.2 Contract Selection 3-22
3.6.2.1 Fixed-Price Contracts (FP) 3-22
3.6.2.2 Cost-Reimbursement Contracts 3-23
3.6.2.3 Comparison of Fixed-Price and Cost-Reimbursement Contracts 3-23
3.6.2.4 Indefinite Delivery/Indefinite Quantity Contracts (IDIQ) 3-24
3.6.2.5 Letter Contracts 3-24
3.6.2.6 Other Contracting Methods 3-24
3.6.3 Agreements 3-24
3.6.3.1 Basic Agreements 3-24
3.6.3.2 Basic Ordering Agreements (BOA) 3-24
3.6.3.3 Master Agreement for Repair and Alteration of Vessels 3-25
3.6.3.3.1 General 3-25
3.6.3.3.2 Complex and Refueling Overhauls of Nuclear-Powered Aircraft Carriers and Submarines 3-25

3.7 Overview of Contract Procurement Methods 3-26
3.7.1 Policy for Full and Open Competition 3-26
3.7.2 Contracting Methods 3-26
3.7.2.1 Simplified Acquisition Procedures 3-26
3.7.2.2 Sealed Bidding 3-26
3.7.2.3 Contracting by Negotiation 3-27
3.7.2.3.1 Best Value Contracting 3-27
3.7.2.4 Comparison of Sealed Bidding and Contracting by Negotiation 3-28
3.7.2.5 Business Clearances 3-28
3.7.3 Writing Contracts 3-28
3.7.3.1 Uniform Contract Format (UCF) 3-28
3.7.3.2 Standard Procurement System (SPS) 3-29
3.7.4 Socioeconomic Programs 3-30
3.7.4.1 Small Business Programs 3-30
3.7.4.1.1 Deputy for Small Business 3-30
3.7.4.1.2 Subcontracting Program Administrator 3-31
3.7.4.2 Assignment of Contract Administration 3-31
3.7.4.3 Contract Manager Representatives 3-31
3.7.4.4 Correspondence and Visits 3-31
3.7.4.5 Contracting Officer Certificate of Appointment 3-32
3.7.4.6 Project Manager Representatives (PMRs) 3-32
3.7.5 Involvement 3-32
3.7.5.1 Implementation of Involvement (New Construction) 3-32
3.7.5.1.1 Prerequisites and Primary Sources of Information for Involvement 3-33
3.7.5.1.2 Dealings and Meetings with the Contractor 3-36
3.7.5.1.3 SUPSHIP Actions 3-36
3.7.5.2 Implementation of Involvement (Repair/PSA) 3-38
3.7.6 Files of Contract Actions 3-38
3.7.6.1 Introduction 3-38
3.7.6.2 General 3-38

3.7.6.2.1 Contents of Contract Administration Office (CAO) Contract Files 3-38
3.7.6.2.2 Contents of Paying Office Contract Files 3-40
3.7.6.3 Changes Files 3-40
3.7.6.4 Access to Files 3-41

3.8 Processing Contract Change Proposals 3-41
3.8.1 Introduction 3-41
3.8.2 Contract Modifications 3-41
3.8.2.1 Introduction 3-41
3.8.2.2 Definitions 3-42
3.8.2.3 Policy 3-42
3.8.2.4 Types of Contract Modifications 3-43
3.8.2.5 Order of Preference for Contract Change Modifications 3-43
3.8.3 Contract Change Pricing 3-44
3.8.3.1 Objective of Contract Change Process and Pricing 3-44
3.8.3.2 Pricing Responsibility 3-44
3.8.3.3 Forward Pricing Rate Agreements (FPRA) 3-44
3.8.3.4 Pricing of Deleted Work 3-45
3.8.3.5 Adjudications on the Basis of Estimates 3-45
3.8.4 Proposal Analysis 3-45
3.8.4.1 General 3-45
3.8.4.1.1 Definitions 3-45
3.8.4.2 Subcontract Pricing Considerations 3-46
3.8.4.3 Use of Independent Estimates 3-46
3.8.4.4 Price Analysis 3-46
3.8.4.5 Cost Analysis 3-47
3.8.4.5.1 Cost or Pricing Data 3-47
3.8.4.5.2 Defective Cost or Pricing Data 3-47
3.8.4.5.3 Cost Analysis Techniques and Procedures 3-47
3.8.4.5.4 Technical Analysis 3-48
3.8.4.5.5 Allowability of Costs 3-48
3.8.5 Technical Advisory Reports (TARs) 3-48
3.8.5.1 Requirements 3-49
3.8.5.2 Local Instructions and Procedures 3-50
3.8.6 Audit Evaluations and Field Pricing Support 3-50
3.8.6.1 Audit Evaluation 3-50
3.8.6.2 Audit Advisory Reports (AARs) 3-50
3.8.6.3 Field Pricing Assistance 3-51
3.8.6.3.1 Cost Realism Analysis 3-51
3.8.7 Reaching Work Scope Understanding 3-52
3.8.7.1 General 3-52
3.8.7.2 Work Scope Conference 3-53
3.8.7.2.1 Work Scope Data 3-53
3.8.8 Profit/Fee 3-53
3.8.8.1 General 3-53
3.8.8.2 Policy 3-54

3.8.8.3 Procedures 3-54
3.8.9 Negotiator's Evaluation and Pre-Negotiation Position 3-54
3.8.9.1 General 3-54
3.8.9.2 Proposal Updates 3-55
3.8.9.3 Business Clearances 3-55
3.8.9.3.1 General 3-55
3.8.10 Special Areas 3-56
3.8.10.1 Packaged Negotiations 3-56
3.8.10.2 Periods of Performance (POP) 3-56
3.8.10.3 Coordination and Relationship with DCAA 3-57
3.8.10.4 Notification of Contract Changes 3-57
3.8.10.5 Funding 3-57
3.8.10.6 Notification of Substantial Impact on Employment 3-58
3.8.10.7 Identification of Foreign Material Sales (FMS) Contract Modifications 3-58
3.8.10.8 Change Orders 3-58
3.8.10.8.1 General 3-58
3.8.10.8.2 Authority to Issue Change Orders 3-58
3.8.10.8.3 Change Order Accounting Procedures 3-58
3.8.10.8.4 Administration 3-59
3.8.10.8.4.1 Change Order Documentation 3-59
3.8.10.8.4.2 Definitization 3-59
3.8.10.8.4.3 Complete and Final Equitable Adjustment 3-60
3.8.10.8.4.4 Consideration as Command Key Indicator 3-61

3.9 Policy for Overtime and Multi-Shift Work 3-61
3.9.1 Overtime and Multi-Shift Premiums for Fixed-Price Contract Considerations 3-61
3.9.2 Overtime and Multi-Shift Premiums for Cost-Reimbursable and Letter Contract 3-62

3.10 Warranties 3-62
3.10.1 General 3-62
3.10.2 Criteria for the Use of Warranties 3-63
3.10.3 Limitations on Use of Warranties 3-63
3.10.4 Warranty Terms and Conditions 3-64
3.10.5 Contract Clauses for Warranties 3-64
3.10.6 General Definitions in Warranties 3-64
3.10.7 Applicability to Foreign Military Sales (FMS) 3-65
3.10.8 Cost-Benefit Analysis 3-66

3.11 Guarantee and Acceptance 3-66
3.11.1 General 3-66
3.11.2 Guarantee Period 3-66
3.11.3 Surface Ship and Submarine Deployment during the Guarantee Period 3-67
3.11.4 Contractor Responsibility under the Guarantee Provisions 3-67
3.11.5 Guarantee under Fixed Price Contracts 3-68
3.11.6 Guarantee under Cost-Reimbursement Contracts 3-68

3.11.7 Guarantee for Ships to be Transferred to Foreign Governments 3-69
3.11.8 Guarantee Provisions in Boat (Supply Type) Contracts 3-69
3.11.9 Notification by SUPSHIP of Guarantee Provisions 3-69
3.11.10 Notices to the Contractor 3-70

3.12 Subcontracts 3-71
3.12.1 Introduction 3-71
3.12.2 Definitions 3-71
3.12.3 Consent Requirements 3-72
3.12.3.1 Advance Notification Requirements 3-72
3.12.3.2 Contract Clauses 3-72
3.12.4 Subcontract Evaluation Responsibilities and Procedures 3-73
3.12.4.1 Responsibilities 3-73
3.12.4.2 Considerations 3-73
3.12.4.3 Technical and Administrative Review 3-74
3.12.4.4 Additional SUPSHIP Consent Procedures 3-75
3.12.4.5 Consent Limitations 3-76
3.12.5 Contractor Purchasing System Reviews 3-76
3.12.5.1 Objective 3-76
3.12.5.2 Requirements 3-77
3.12.5.3 Extent of Review 3-77
3.12.5.4 Surveillance 3-78
3.12.5.5 Granting, Withholding, or Withdrawing Approval 3-78
3.12.5.5.1 Responsibilities 3-78
3.12.5.5.2 Notification 3-78
3.12.5.5.3 Withholding or Withdrawing Approval 3-79
3.12.5.6 Disclosure of Approval Status 3-80
3.12.5.7 Reports 3-80

3.13 Contract Claims 3-80
3.13.1 Introduction 3-80
3.13.2 Definition of a Claim 3-81
3.13.3 Claims Program 3-82
3.13.3.1 Purpose 3-82
3.13.3.2 Common Basis for Claims 3-82
3.13.3.2.1 Breach of Contract 3-82
3.13.3.2.2 Insufficient Compensation for Formal Change 3-83
3.13.3.2.3 Late or Defective GFP or GFI 3-83
3.13.3.2.4 Constructive Change Orders 3-83
3.13.3.2.4.1 Contract Misinterpretation 3-84
3.13.3.2.4.2 Defective Specifications 3-84
3.13.3.2.4.3 Failure to Disclose Vital Information (Superior Knowledge) 3-85
3.13.3.2.4.4 Constructive Acceleration 3-85
3.13.3.2.4.5 Failure to Cooperate/Hindrance of Performance 3-85
3.13.4 Generating, Analyzing, and Storage of Data 3-85
3.13.4.1 Generating Data 3-86

3.13.4.1.1 Significant Events 3-86
3.13.4.1.2 Routine Documents, Analyses, and Reports 3-87
3.13.4.1.3 Special Documents, Analyses, and Reports 3-87
3.13.4.2 Analyzing Data 3-88
3.13.4.3 Storing Data 3-88
3.13.5 Analyzing Claims and Preparing TARs 3-89
3.13.5.1 Analyzing Claims 3-89
3.13.5.2 Direct Approach 3-89
3.13.5.3 Total Cost and Environment Approach 3-89
3.13.5.4 Combination Approach 3-90
3.13.5.5 Preparing TARs 3-91
3.13.6 Resolving Claims 3-92
3.13.6.1 Negotiation 3-92
3.13.6.2 Alternative Dispute Resolution (ADR) 3-92
3.13.6.3 Litigation 3-92
3.13.6.4 Use of the “Mistake After Award” Procedures, the Contracts Dispute Act, and Public Law 85-804 3-93
3.13.6.4.1 Use of the “Mistake After Award” Procedures 3-93
3.13.6.4.2 Use of the Contract Disputes Act (CDA) 3-94
3.13.6.4.3 Use of Public Law 85-804 3-95
3.13.7 Specific NAVSEA Requirements 3-95
3.13.7.1 Applicability 3-95
3.13.7.2 Definitions and Approval Levels 3-95
3.13.7.3 Claims Prevention 3-96
3.13.7.4 Processing Claims and REAs 3-98
3.13.7.5 Interest on Claims by Contractors 3-103
3.13.7.6 Legal Fees 3-103
3.13.7.7 Contracting Officer’s Final Decision 3-103
3.13.8 Resolution of Disputes 3-104
3.13.8.1 Appeals 3-104
3.13.8.2 Negotiations with Appeal Pending 3-104
3.13.8.3 Third Party Lawsuits 3-104
3.13.9 Constructive Changes 3-104
3.13.9.1 General 3-104
3.13.9.2 Contracts Containing FAR 52.243-7, “Notification of Changes” Clause 3-105
3.13.9.2.1 FAR 43.204 Equitable Adjustments: Waiver and Release of Claims 3-106
3.13.9.3 SUPSHIP Procedures and Reports 3-106
3.13.9.4 SUPSHIP Authority to Formalize Identified Constructive Changes 3-107
3.13.9.5 Processing Identified Constructive Changes 3-108

3.14 Release of Performance Reserves 3-108

3.15 Contract Terminations 3-108
3.15.1 Authority to Terminate 3-108
3.15.2 Extent of Termination 3-109
3.15.3 Effect of Termination 3-109

3.15.4 Termination Contracting Officer 3-109

3.16 Insurance 3-109
3.16.1.1 Introduction 3-109
3.16.1.2 Shipbuilding Fixed-Price Contracts 3-110
3.16.1.2.1 Builder's Risk Policy 3-110
3.16.1.2.2 Collision Liability and Protection and Indemnity Liabilities Insurance 3-111
3.16.1.2.3 Boat Building Fixed-Price Contracts 3-111
3.16.1.3 Shipbuilding Cost-Reimbursable Contracts 3-111
3.16.1.3.1 Loss or Damage to Government Property 3-111
3.16.1.3.2 Collision Liability and Protection and Indemnity Liabilities Insurance and Third Party Liabilities 3-112
3.16.1.4 Administration of Insurance Requirements 3-113
3.16.1.4.1 Responsibilities of Deputy Assistant Secretary of the Navy (DASN) – Acquisition and Logistics Management (A&LM) 3-113
3.16.1.4.2 Authority of SUPSHIPs 3-113
3.16.1.4.3 PCO/SUPSHIP ACO Responsibilities 3-113
3.16.1.4.4 Notification of Legal Action Against the Contractor 3-115
3.16.1.4.5 Procedures for Treating Claims by Third Parties Under Navy Contracts Providing for Assumption of Risk by the Government 3-115
3.16.1.4.6 Liability of Subcontractors 3-115
3.16.1.4.6.1 Deductibles Under Incentive Contracts 3-115
3.16.1.4.6.2 Nuclear and Ultra-Hazardous Risk Indemnity 3-116

Appendix 3-A: Acronyms 3-118

References

(a) Federal Acquisition Regulation (FAR)

(b) NAVSEA Contracts Handbook (NCH)

(c) NAVSEAINST 4200.17E, Contracting Officer's Representative

(d) Defense Federal Acquisition Regulation Supplement (DFARS)

(e) Navy Marine Corp Acquisition Regulation Supplement (NMCARS)

(f) 31 U.S. Code 1535, Agency Agreements

(g) SECNAVINST 4380.8C, Implementation of the DoN Small and Disadvantaged Business Utilization (SADBU) Program

(h) NAVSEAINST 5400.60A, On-Site Program Manager Representatives (PMR)

(i) DoD Directive 5000.01, The Defense Acquisition System

(j) Federal Acquisition Streamlining Act (FASA) of 1994

(k) Budget and Accounting Act of 1921

(l) NAVSEAINST 5400.1F, NAVSEA Headquarters Organizational Manual

Figures

Figure 3-1: Federal Courts Improvement Act Procedure 3-93

Tables

Table 3-1: Comparison of Fixed-Price and Cost-Reimbursement Contracts 3-24

Table 3-2: Comparison of Requirements for Sealed Bidding and Negotiation 3-28

Chapter 3 – Contracting and Contract Administration

3.1 Introduction

This chapter provides background on the Federal acquisition process and an overview of contract procurement, administration, and contract-related functions performed as a part of the SUPSHIP mission. ***Although it addresses the responsibilities, procedures, and functions largely performed within the Contracts Department, it is not intended as guidance for Contracts personnel***, but rather as a basic contracting guide for non-contracts personnel. Major topics addressed in this chapter include:

- SUPSHIP Responsibilities
- Contracting Officer Authority and Responsibilities
- Overview of the Federal Acquisition Process
- Contract and Budget Authority
- Contracts and Agreements
- Overview of Contract Procurement Methods
- Contract Administration
- Processing Contractual Actions
- Subcontracts
- Contract Claims
- Contract Terminations
- Insurance

3.2 SUPSHIP Responsibilities

3.2.1 Contract Administration Services (CAS)

Managing and administering contracts lie at the heart of the SUPSHIP Mission (SOM section 1.1.2). Virtually all work performed by a SUPSHIP, regardless of department, is either directly or indirectly involved with these contracting functions. Within the scope of the SUPSHIP mission, work is often classified as being CAS (Contract Administration Services) or non-CAS in nature. Contract Administration Services are defined in reference (a), Federal Acquisition Regulation (FAR), Part 42.302, which includes a list of eighty-one specific functions. For SUPSHIPs, the more significant CAS responsibilities include:

- negotiating Forward Pricing Rate Agreements (FPRA)
- determining the contractor's compliance with Cost Accounting Standards
- reviewing and approving the contractor's requests for payment
- ensuring timely notification by the contractor of any anticipated cost overruns or underruns
- performing property administration
- performing production support, surveillance, and status reporting, including timely reporting of potential and actual slippage in contract delivery schedules
- monitoring contractor industrial labor relations matters under the contract
- ensuring contractor compliance with contractual quality assurance requirements
- ensuring contractor compliance with contractual safety requirements
- performing surveillance, evaluation, and analysis of contractor engineering efforts, including:
    - compliance with contractual terms for schedule, cost, and technical performance
    - contractor engineering efforts and management systems that relate to design, development, production, engineering changes, subcontractors, tests, management of engineering resources, reliability and maintainability, data control systems, configuration management, and independent research and development
    - engineering analyses of contractor cost proposals
    - engineering change proposals
    - contractor requests for waivers and deviations
    - contractor's Value Engineering program
- reviewing, approving/disapproving, and monitoring the contractor's purchasing system
- consenting to subcontracts
- accomplishing administrative contract closeout procedures

- supporting the program, product, and project offices regarding program reviews, program status, program performance, and actual or anticipated program problems
- monitoring the contractor's environmental practices
- issuing change orders and negotiating and executing supplemental agreements
- preparing evaluations of contractor performance

3.2.1.1 Other DoD CAS Responsibilities

In order to provide consistent and uniform contract administration functions for each contractor, DoD has established the Federal Directory of Contract Administration Services (CAS) Components for those engaged in the performance of contract administration services, and identifies the geographic area or specific contractor plant for which they are assigned CAS responsibilities. This directory is mandatory for use by all DoD components and is available for use by non-DoD organizations requiring the performance of CAS.

Although the majority of CAS Components in the directory are Defense Contract Management Agency (DCMA) activities, SUPSHIPs are assigned CAS responsibilities for all major shipbuilders. Unless otherwise restricted to ship construction or ship repair contracts in the CAS Directory, SUPSHIPs may also be responsible for performing CAS functions for other DoD contracts awarded to the contractors under their cognizance, whether those contracts are procured by the Navy or some other DoD component.

In some cases, a DCMA component rather than SUPSHIP is assigned CAS responsibilities for a shipbuilder. This can occur with smaller shipyards located outside the geographic area of a SUPSHIP. When Navy shipbuilding contracts are awarded to one of these shipyards, DCMA may, at NAVSEA's request, reassign some or all CAS responsibilities to a SUPSHIP for oversight of that contract.

3.2.2 Non-CAS Responsibilities

Non-CAS contracting functions include contract planning and procurement, contract termination, and other contracting functions not identified in FAR 42.302. Although SUPSHIPs do not typically perform Procuring Contracting Officer (PCO) functions for new construction contracts, they may be tasked with assisting NAVSEA in the planning and procurement of these contracts. Additionally, SUPSHIP Contracting Officers, within the limits of their contracting warrant, are authorized to procure contracts for NAVSEA, Fleet, and other customers, as well as to procure service contracts in support of the command mission.

3.3 Contracting Officer Authority and Responsibilities

The Federal Government conducts activities through employees with varying degrees of authority and responsibility. For contract administration purposes, this work is accomplished

through Contracting Officers assisted by Project Managers, Engineers, QA Specialists, Environmental Safety & Health specialists, and other SUPSHIP personnel.

Problems frequently arise when employees, other than a contracting officer, attempt to bind the Government in regards to a contract. The most common problems involve situations where the Government refuses payment of claims because the contractor dealt with an unauthorized agent or where the Government seeks to revoke or countermand action taken by its employees or agents.

3.3.1.1 Authorized Officials

The term “contracting officer” refers to people who have met the prerequisites and formal training requirements mandated by the Defense Acquisition Workforce Improvement Act (DAWIA) and who have been granted the authority to contractually bind the Government. Other titles and positions for contracting officers include:

- “Head of Contracting Activity (HCA)” is the official who has overall responsibility for managing the contracting activities. For NAVSEA and its field activities, the Commander, Naval Sea Systems Command is the HCA.

- “Chief of the Contracting Office (CCO)” is the supervisory official who is directly responsible for supervising, managing, and directing a contracting office.

- "Contracting Officer" is defined as a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

- “Procuring Contracting Officer (PCO)” refers to a contracting officer who normally establishes a contract for supplies or services. Note that FAR makes only a single reference to “procuring contracting officer” instead choosing to simply use the term “contracting officer” to identify the individual performing contract procurement functions.

- "Administrative Contracting Officer (ACO)" refers to a contracting officer who administers a contract.

- "Termination Contracting Officer" refers to a contracting officer who is responsible for negotiating any settlement for a terminated contract.

For Contracting Officers below the level of the Head of Contracting Activity (HCA), FAR 1.603 establishes the basic requirements for the selection, appointment, and termination of Contracting Officer authority. NAVSEA 02 employs a Certificate of Appointment for designating individuals as Contracting Officers. These certificates state any limitation on the scope of authority to be exercised, other than those limitations contained in applicable laws or regulations. Additionally, agencies sometimes impose limitations on the authority of their

Contracting Officers by prescribing procedures that must be followed in order for the Contracting Officer's action to be binding on the Government.

a. Commander, Naval Sea Systems Command is the HCA for the Naval Sea Systems Command and its subordinate commands and activities.

b. In accordance with reference (b), the NAVSEA Contracts Handbook (NCH) 1.601, certain HCA authorities have been delegated to selected offices, primarily NAVSEA 02, NAVSEA 02B, and the Chiefs of the Contracting Office (CCO) of the Field Procurement Offices (FPO). For the NAVSEA Warfare Centers, SUPSHIPs, and Regional Maintenance Centers (RMCs), contracting authority is delegated in writing through NAVSEA 02.

3.3.1.2 Procuring Contracting Officer / Administrative Contracting Officer Relationship

NAVSEA's Contracting Officers are responsible for the solicitation, negotiation, award, and administration of all necessary contracting actions and determinations for effective contracting and ensuring compliance with terms of the contract, safeguarding the interest of the United States in its contractual relationships. In performance of this task, procuring contracting officers delegate in writing contract administration or specialized support services to cognizant Contract Administration Office (CAO) for administration. The delegation has specific elements contained in (FAR 42.202), but inherent to these elements is the necessity to establish and maintain robust, open and frequent dialogue between PCO and ACO. Because both PCO and ACO retain warrant authority over contract, both must be aware of others' actions that materially affect the performance of the contract. It is critical that ACO and PCO remain engaged in each other's actions and anticipate upstream or downstream effects on contracts.

3.3.1.3 Contracting Officer's Representatives (CORs)

A Contracting Officer's Representative (COR) is a technically qualified, properly- trained individual nominated by the requiring activity and appointed in writing by the Procuring Contracting Officer (PCO) to serve as liaison between the Government and a contractor for the technical aspects of a specific contract or order. Personnel assigned as CORs may include auditors, lawyers, engineers, shipbuilding specialist/production controllers, QA specialists, and other technical personnel. CORs monitor the contractor's performance, serve as the focal point for the resolution of technical issues, and provide technical and administrative support to the Contracting Officer. Individuals authorized to be a COR have a much narrower scope of authority than the person specifically designated as a Contracting Officer. Procurement regulations limit the authority of CORs. CORs have no authority to make any commitments or changes that affect price, quality, delivery, or other items and conditions of the contract (see DFARS 201.602-2(2)). NCH 1.602-2 and NAVSEAINST 4200.17E** (Contracting Officer's Representative), reference (c),) provides specific guidance regarding COR duties, responsibilities, limitations, and relationship to the Contracting Officer.

** Denotes secure hyperlink requiring NMCI/CAC access

3.3.1.4 Typical Contracting Officer's Representative (COR) Duties at SUPSHIP

CORs are responsible for the technical aspects of the contract. At SUPSHIPs, this may include preparing and reviewing contract work statements, delivery requirements and specifications, clarifying technical requirements, preparing independent estimates, providing technical liaison with the contractor, and monitoring contractor performance. In performing these functions, a COR must:

a. ensure that the contract does not become a personal service contract

b. ensure that constructive changes do not occur

c. control, formalize, and issue technical direction that does not individually or collectively constitute an action that should be handled under the “Changes” clause or otherwise not within the scope of the contract

d. ensure necessary file documentation

e. monitor contractor performance regarding cost, quality, and delivery

f. communicate with the Contracting Officer

g. ensure that the work being required is within the scope of the Statement of Work for the terms and conditions of the contract

h. certify contractor invoices

i. provide reports associated with the task order

j. maintain the Significant Events log

k. provide a past performance information survey at completion of contract evaluation

l. when tasked, submit CPARS information

3.3.1.5 Actual Authority Required

One of the concerns regarding CORs is that contractors may not understand the process necessary to create an "authorized representative". It is the ACO's responsibility to clearly articulate the authority of individuals participating in the contract administration process. NAVSEA requires that proper training be completed prior to formally designating employees as CORs. There are other Government representatives who interface directly with contractors in the normal course of their duties but who are not designated as having any formal status (e.g., where technical evaluation, testing, quality control, inspections, etc., are performed by individuals other than those specifically designated as CORs).

Government personnel must avoid all acts that could lead the contractor to conclude that a "constructive change" has been given, even though the individual has no contractual authority to do so. The ACO must clearly state to the contractor's representatives that, with the exception of assigned Contracting Officers, no Government personnel, and specifically the COR and ship's force, are authorized in any manner to supervise the contractor's personnel in the performance of the terms and conditions of the contract. This action is essential because in certain cases of contractor claims, the courts and boards tend to look more at the actual functions that such personnel perform than at their formal status. When they are given contract-related functions as part of their official duties, they may well be treated by the courts as authorized representatives with "implied authority" even though they are not authorized to act in a formal capacity to obligate the Government in accordance with their action.

Recognizing the importance of effective Government control over the conduct of its agent, the boards and courts have frequently stated the rule that the Government is not bound by the unauthorized acts of its agents, even though they are acting with "apparent authority."

It is important to recognize that the actual authority rule does not apply to contractors (i.e., contractors are governed by the usual rules of apparent authority). This means that a contractor shall normally be bound by acts of its employees with apparent authority, even though these employees may lack actual authority.

3.3.1.6 Implied Authority

While "apparent authority" shall not be sufficient to hold the Government bound by the acts of its agents, the boards and courts have frequently granted contractors relief on the basis of "implied authority" when such authority is considered to be an integral part of the duties assigned to a Government employee. Most of the litigated cases involving implied authority arise where Government technical personnel, lacking authority to order changes, issue interpretations or give instructions which induce the contractor to perform work beyond actual contract requirements. In such cases, the boards and courts frequently hold the Government to a "constructive change" when it is found that the Government has acted to change the contract without actually going through the "Changes" clause formalities.

3.3.1.7 Contracting Officer/COR Relationship

Successful contract performance depends heavily on the Contracting Officer and COR relationship. This relationship should be a harmonious and close partnership, where the expertise of each is best utilized, consistent with their inherent responsibilities. The authority, responsibility, and duties of the COR shall be clearly defined by the Contracting Officer, understood by the COR, and discussed in detail with the contractor. The duties of the assigned COR are to be included in the contract where feasible, but at a minimum should be detailed in writing by the Contracting Officer, with the original provided to the COR and a copy to the contractor and contract files. Since the COR functions not just as an official representative of the Government, but also as the "eyes and ears" of the Contracting Officer, the COR must essentially interface directly with the Contracting Officer.

3.4 Overview of the Federal Acquisition Process

3.4.1 Procurement from Private or Government Sources

The authority of an agency to use contractual agreements to carry out authorized programs is generally assumed in the absence of express statutory prohibitions or limitations. In some instances, it may be more efficient and economical for an agency to use its own employees, while in others it may requisition its needs from another agency better suited to provide the needed services or products.

Executive agencies have traditionally enjoyed broad discretion to achieve their objectives using Government employees or by contract with the private sector. Because of concerns that Government competition with private enterprise is inappropriate, the executive branch has an express policy that the Government should rely on the private sector to the greatest extent possible.

3.4.2 Contracting Techniques

Executive agencies generally have wide latitude in selecting the methods for awarding contracts, as well as the terms and conditions to be included. The contracting parties must be aware of the large number of statutes and regulations giving specific guidance on the techniques to be followed in entering into most Government contracts. Contracting Officers are expected to adhere to such statutes and regulations and, in most instances, the validity of contracts can be affected if they are not followed.

3.4.3 General Procurement Statutes

3.4.4 Procurement Regulations

Congress has enacted two principal statutes establishing procedures for awarding Government contracts; the Armed Services Procurement Act of 1947 and the Federal Property and Administrative Services Act of 1949. These two acts have governed the federal procurement process. They were revised by the Competition in Contracting Act of 1984, the Small Business and Federal Procurement Competition Enhancement Act of 1984, and the Defense Procurement Reform Act of 1984, among other Acts. The Armed Services Procurement Act applied to purchases of the Army, Navy, Marine Corps, Air Force, Coast Guard, and the National Aeronautics and Space Administration. The Federal Property and Administrative Services Act applied to purchases of the General Services Administration and other executive agencies except those covered by the Armed Services Procurement Act.

Regulations issued by the various executive agencies contain detailed guidance as to both procedures for award, and terms and conditions of contracts. The Federal Acquisition Regulations (FAR) replaced the Federal Procurement Regulation, the Defense Acquisition Regulation, and the National Aeronautics and Space Administration Procurement Regulation. The chief goal of the FAR is to bring greater simplification and uniformity to the complex body of federal procurement regulations.

While the policy concerning Government contracts is formulated and implemented largely within the executive agencies that enter into these contracts, such policy is also directly affected by pronouncements issued by the President, the Office of Management and Budget (OMB - http://www.whitehouse.gov/omb/), and within OMB, the Office of Federal Procurement Policy (OFPP - http://www.whitehouse.gov/omb/procurement/index.html). The President issues executive orders that authorize and require executive agencies to use contract clauses that implement various social and economic programs. OMB periodically issues circulars that embody executive policy and have a status in the hierarchy of executive regulations above the procurement regulations promulgated by the agencies. The OFPP was created to provide overall direction to federal procurement policy with the responsibility for formulating and implementing a uniform federal procurement system that consists of a single FAR and agency regulations limited to those necessary to implement or supplement the FAR.

The procurement regulations and directives of major interest to contractual and technical personnel of the field office are briefly described below. Specific regulations, directives, and other procurement publications are also referenced throughout the text.

3.4.4.1 Federal Acquisition Regulation (FAR)

FAR is the primary regulation for use by all Federal Executive agencies in their acquisition of supplies and services. FAR precludes agency acquisition regulations that unnecessarily repeat, paraphrase, or otherwise restate the FAR and limits agency acquisition regulations to those necessary to implement FAR policies and procedures within an agency. FAR provides for coordination, simplicity, and uniformity in the Federal acquisition process.

3.4.4.2 Department of Defense Federal Acquisition Regulation Supplement (DFARS)

Reference (d), Defense Federal Acquisition Regulation Supplement (DFARS), is issued by the Secretary of Defense and establishes uniform policies and procedures that implement and supplement the FAR for Department of Defense (DoD). The DFARS contains guidance and direction pertaining to the provisions, clauses, cost principles, and cost accounting standards authorized for DoD contracts and other procedures and actions that must be followed in awarding and administering DoD contracts. The DFARS contains material that implements the FAR, as well as supplementary material that is unique to DoD. This supplement is not a stand-alone document and must be read in conjunction with the FAR. In addition to the DFARS hyperlink provided above, change notices can be accessed at the Defense Acquisition Regulations System (DARS) Directorate's DFARS Changes page.

3.4.4.2.1 DFARS Procedures, Guidance, and Information (PGI)

The DFARS Procedures, Guidance, and Information (DFARS PGI) is a companion resource to DFARS containing mandatory and non-mandatory internal DoD procedures. It is a web-based tool created to simplify and rapidly access guidance and information relevant to FAR and DFARS topics. DFARS remains the source for regulations, which include the implementation of statutes and DoD-wide contracting policies, authorities, and delegations. The PGI contains both mandatory and non-mandatory internal DoD procedures, guidance,

and supplemental information. Mandatory procedures must be followed by all contracting personnel, while non-mandatory procedures are subject to the discretion of the Contracting Officer based on the acquisition situation. PGI is managed and approved by the Defense Acquisition Review (DAR) Council and, unlike FAR and DFAR, is not subject to public comments or OMB review and is not published in the Federal Register or Code of Federal Regulations. Like the DFARS, PGI updates are available at the DFARS Changes page.

3.4.4.3 Navy Marine Corp Acquisition Regulation Supplement

Reference (e), the Navy Marine Corp Acquisition Regulation Supplement (NMCARS), implements and supplements the FAR and the DFARS and establishes uniform policies and procedures for the acquisition of supplies and services for the Department of the Navy. The NMCARS is not a stand-alone document and must be read in conjunction with the FAR and DFARS.

3.4.4.4 NAVSEA Contracts Handbook

The NAVSEA Contracts Handbook (NCH) provides general guidance to NAVSEA contracting officers in the execution of their delegated authority. It is not a stand-alone document; it is authorized by DFARS 201.304 and must be read together with FAR, DFAR and NMCARS regulations. The NCH applies to NAVSEA Headquarters, Program Executive Officers, SUPSHIPs, and other NAVSEA field organizations. Because Commander, Naval Sea Systems Command (COMNAVSEASYSCOM) serves as the Head of Contracting Activity (HCA) for the Regional Maintenance Centers (RMCs), the NCH also applies to these Fleet commands. In the event of a conflict, the FAR, DFARS, or NMCARS take precedence over the NCH. Additionally, the NCH takes precedence over the guidance provided in this manual as well as local instructions prepared by the SUPSHIPs and other field activities. NAVSEA 021 maintains the NCH and issues changes as required. Requests for deviations from the NCH must be submitted to NAVSEA 02B via NAVSEA 021.

3.4.4.5 Other Navy Publications

Although the NMCARS is the basic procurement publication issued at the Navy departmental level, procedures are further refined in directives, instructions, notices, and other publications issued by direction of the Secretary of the Navy. Distribution of these publications may differ from the distribution of the NMCARS because of security considerations and other reasons. Accordingly, they are generally not made available to organizations outside the Government.

3.4.4.6 Command Publications

Subject to the provisions of FAR Part 1.3 and 1.4, procuring activities may issue procurement and related directives, instructions, and other publications to implement and supplement DFARS, NMCARS, and other departmental publications. Each Command issues directives, instructions, notices, and other publications that are necessary for the efficient performance of procurement operations.

3.4.4.7 Field Instructions and Notices

Each SUPSHIP is authorized to issue instructions and notices pertaining to contracting procedures that govern the internal operations of the office. Instructions may be issued to establish or explain organization, policy, and procedures affecting more than one department of the SUPSHIP office and may remain in effect up to seven years. Notices may be issued to provide information of temporary interest and application to more than one department of the office. Each notice shall state its period of effectiveness up to a period of one year.

3.4.4.8 Waiver of Regulations and Directives

FAR 1.4 provides policy for submitting requests for deviation from the FAR. SUPSHIP personnel are encouraged to identify any regulation, directive, policy, or procedure that can be modified, waived, or eliminated in improving or streamlining business operations.

3.4.4.9 Impact of Statutes and Regulations

Regulations are issued by many offices in the agencies of the executive branch. There is frequently a substantial question as to their legal effect. When a board or court rules that a regulation is legally binding on either a contractor or the Government, that regulation is characterized as having the "force and effect of law". In such cases, the regulation is treated in the same manner as a statute. Generally, regulations shall have the force and effect of law if they are promulgated pursuant to specific statutory authority or formulated to implement a fundamental procurement policy and are appropriately published. SUPSHIPs should obtain the assistance of legal counsel in all such matters.

3.5 Contract and Budget Authority

In order for any contract with the Government to be enforceable, it must comply with certain legal requirements that apply to all Federal Government contracts.

3.5.1.1 Statutory Authorization

Before a contract can be entered into, there must be statutory authorization for the work being performed. Most agencies have a continuing grant of general authority to work in designated areas as a part of their basic mission. The Constitution also provides that "No money shall be drawn from the Treasury, but in consequence of appropriations made by law." Using this constitutional authority, Congress has prohibited the executive branch from entering into contracts prior to the appropriation of funds or in greater amounts than contained in appropriations.

3.5.1.2 Budget Authority

Budget authority may be provided either in the form of an appropriation act or by a grant of contract authority. Contract authority is permitted by the last phrase of reference (f), 31 U.S. Code 1535 (Agency Agreements), and shall usually be found in specific language in statutes authorizing programs and permitting the contracts prior to the passage of an appropriation

act. Leases made for periods longer than that covered by appropriated funds, and contracts made for amounts greater than appropriations, are not binding on the Government.

In some cases, the executive agencies enter into agreements with contractors in advance of or in excess of appropriations, making the Government's obligation contingent on the passage of an appropriation. Since such agreements are not binding obligations of the Government until the passage of the appropriation, they do not violate the statutes.

3.5.1.3 Authorization of Appropriations

Prior to the passage of an appropriation act, funds for agency programs are approved by "authorization acts" which authorize funding with dollar limitations. For DoD, the House Armed Services Committee (HASC) and the Senate Armed Services Committee (SASC) conduct their initial review of the scope of DoD programs and decide on the amount of funds that should be provided. These committees retain their prerogatives of control over DoD programs and limit the appropriations committees to providing funds up to, but not exceeding, the amounts authorized. Since the authorization process is a working rule of Congress, it would seem that an appropriation, even without the required authorization, would provide the necessary authority to enter into contracts. The courts have held, however, that an appropriation is not valid if there has been no authorization legislation because Congress may not legislate through appropriations laws. Authorization may also be in the form of provisions in the general legislation of the agency authorizing expenditures up to specified limits for designated programs.

The legislative committees also retain control of this area in cases where "contract authority" is contained in the statute authorizing the undertaking of a program. In such cases, there is no process for review of the matter by the appropriations committees, yet the agency is authorized to enter into contracts. Of course, subsequent appropriations are necessary before the contractor can be paid, but it is assumed that such appropriations shall be forthcoming without contest.

3.6 Contracts and Agreements

A contract is an agreement between two or more parties that is enforceable by law. It may be agreed to either orally or in writing either as bilateral (two promises) or unilateral (promise for an act or forbearance of an act). FAR 2.101 defines a contract to include all types of commitments that obligate the Government to an expenditure of appropriated funds and that, except as otherwise authorized, are in writing. In addition to bilateral instruments, contracts include awards and notices of awards; job orders or task letters issued under basic ordering agreements (BOAs); letter contracts; orders, such as purchase orders under which the contract becomes effective by written acceptance or performance; and bilateral modifications.

Elements of a Contract: There are five essential elements required to have a binding contract:

1. Offer
2. Acceptance
3. Consideration
4. Legal and possible objective
5. Competent parties

The Offer: An offer is nothing more than a promise to perform an act, or the forbearance of an act, for some consideration by the party accepting the offer. In order for the offer to be valid, the expression must be intended as an offer, it must be complete in all its essential terms, it must be communicated (in the manner intended) by the offeree, and it must be clear and without ambiguities. If after the contract is formed, it is found to be imprecise or ambiguous in some minor detail so that reasonable persons could differ as to its meaning, the "Rule of Ambiguities" comes into play and the contract shall be reformed at the expense of the party who drafted the contract.

The Acceptance: Acceptance is an expression of consent to the proposed contract. In order for the acceptance to be effective, i.e., to create a valid contract, it must be:

- clear and unequivocal
- timely (i.e., it must occur before the offer is revoked)
- a mirror image of the Offer (i.e., must use the same terms as the Offer)

Consideration: Consideration is the price bargained for and paid, for a promise. It may consist of an act, a forbearance of an act, or a return promise. To be valid, consideration must be legally sufficient; that is, the consideration must have value in the eyes of the law. In government contracting, the courts do consider the sufficiency and adequacy of the consideration.

The Legal and Possible Objective: The purpose of a contract (what it is the offeror is trying to accomplish) must be a legal and possible objective. If the objective is illegal, the contract is unenforceable. Likewise, impossibility can excuse performance under the contract.

Competent Parties: Both parties to a contract must have legal capacity to enter into the contract. In the Government, this must be a duly authorized and properly certified Contracting Officer who has the legal authority to obligate the Government, using authorized funds to comply with the agreed upon terms and conditions of the contract. Private companies are required to designate in writing the names of the individuals who are authorized to represent the contractor in contract matters and to obligate the company in writing to a promise to meet the agreed upon terms and conditions of the contract.

3.6.1 Types of Contracts

The Government enters into many types of contracts. FAR Part 16 authorizes the use of various basic types of contracts (e.g., fixed-price, cost-reimbursement, etc.) and lists the factors to consider when determining the contract type best suited to a specific procurement. The contract types most commonly used by NAVSEA and SUPSHIPs for new construction, repair, and modernization, and supporting acquisitions include:

- Firm-Fixed Price (FFP)
- Fixed-Price Incentive (FPI)
- Cost-Plus-Incentive Fee (CPIF)
- Cost-Plus-Award-Fee (CPAF)
- Cost-Plus-Fixed-Fee (CPFF)
- Indefinite Delivery/Indefinite Quantity (IDIQ)

Federal Acquisition Regulations also authorizes the use of any combination of the approved contract types, such as a fixed-price-award-fee contract. For any contract other than FFP, the contracting officer must make a determination of the method of contracting.

3.6.2 Contract Selection

For the government, the contract type can substantially influence the cost of acquisition and the quality and delivery of the product or service being procured. For the contractor, the government's selection of an inappropriate contract type can result in financial setbacks or excessive profit.

3.6.2.1 Fixed-Price Contracts (FP)

Fixed-Price (FP) contracts, discussed in FAR 16.2, usually stipulate a firm price with the contractor bearing the entire risk of both cost and performance. Under some circumstances, a fixed-price may leave portions of the price open and provide for a later adjustment. The degree of risk assumed by the contractor shifts from the contractor to the Government when any variation of the FP type contract is used other than the FFP. In the FP contract with economic price adjustment, the contractor bears all cost risks except that portion which is covered by the adjustment provisions. A Fixed-Price-Incentive contract provides for adjusting profit and establishing the final contract price by a formula based on the relationship of final negotiated total cost to total target cost, with the contractor bearing any costs in excess of ceiling price.

3.6.2.2 Cost-Reimbursement Contracts

Cost-reimbursement contracts, discussed in FAR16.3, are used when the estimate of costs is as reasonable as the circumstances permit, but because of the magnitude of uncertainties involved in the procurement, the risk is too great to expect a contractor to accept a FP arrangement. In the Cost-Plus-Fixed-Fee contract, the Government agrees to pay all allowable costs that are incurred under the contract, plus a fixed-dollar amount of fee. A Cost-Plus-Incentive-Fee type contract provides for an initially negotiated fee to be adjusted later by a formula based on the relationship of total allowable costs to total target costs. Under the Cost-Plus-Award-Fee, the allowable costs are paid, plus a fee. The fee typically consists of two parts, a fixed amount that does not vary with performance and an award amount. The award amount is based upon a subjective evaluation of contractor performance by the Government, judged in light of criteria set forth in the contract. The criteria and rating plan should be tailored to the specific procurement in order to provide the most positive way to motivate a contractor toward improved performance. In a cost-reimbursement contract, actual cost, plus fee, equals price.

3.6.2.3 Comparison of Fixed-Price and Cost-Reimbursement Contracts

The following table illustrates the basic differences between fixed-price and cost-reimbursement contracts.

Fixed-Price	Cost-Reimbursement
• Low risk to the Government. • Well-defined requirement. • Guaranteed delivery by the contractor. • Payment after delivery or performance (progress payments may be made). • Profit based on efficient performance and cost control. • An IFB or RFP solicitation may be used.	• Higher risk to the Government. • Requirements may not be well-defined. • May be either completion type (definite target specifying an end product) or term type (contractor performs specified level of effort for stated period of time). • Payment as costs are incurred. • Fee that may be used to compensate the contractor beyond cost. • An RFP solicitation must be used.

Table 3-1: Comparison of Fixed-Price and Cost-Reimbursement Contracts

3.6.2.4 Indefinite Delivery/Indefinite Quantity Contracts (IDIQ)

These contracts are used when there is a recurring demand for an item and the timing and extent of demand cannot be determined at the time of award. The contract establishes all terms and conditions except those to be included in orders issued there under.

3.6.2.5 Letter Contracts

Letter contracts are used to authorize urgent work when work must be started immediately and negotiating a definitive contract is not possible in sufficient time to meet the requirement. Use of letter contracts must be approved by NAVSEA at an appropriate level.

3.6.2.6 Other Contracting Methods

a. Multiple Award Contract (MAC) refers to a task-order or delivery-order contract established by one agency for use by Government agencies to obtain supplies and services.

b. Multi-Ship/Multi-Option (MS/MO) contracts enhance the Procuring Contracting Officer's (PCO) flexibility by allowing the PCO to package several ship repair availabilities spanning several years into a single procurement package. These procurements are usually made under cost-type contracts, with each availability planned and executed as a contract option.

3.6.3 Agreements

3.6.3.1 Basic Agreements

Basic agreements are umbrella-type arrangements that promote time savings for recurring requirements. While they are not contracts, they establish ground rules for the required and applicable clauses that shall be incorporated in future contracts. FAR 16.7 provides additional information on agreements.

3.6.3.2 Basic Ordering Agreements (BOA)

A Basic Ordering Agreement (BOA) is not a contract, but a written instrument of understanding negotiated between a contracting activity and a contractor that contains: terms and clauses applying to future contracts, a specific description of supplies or services to be provided, and methods for pricing, issuing, and delivering future orders under the BOA. BOAs may be used for a variety of procurements, including research and development, studies, services, shipbuilding post shakedown availabilities, and hardware procurement. FAR 16.703 provides additional information on BOAs.

3.6.3.3 Master Agreement for Repair and Alteration of Vessels

3.6.3.3.1 General

The complexity of Navy ship repair work, including the compact arrangement of ship machinery and systems, the sophistication of installed systems, and the Navy's absolute requirement for reliable operation, creates a unique repair environment that demands special experience and capability from the ship repair industry. In order to ensure this work is awarded only to firms capable of satisfying these demands, DFARS 217.71 (Special Contracting Methods – Master Agreement for Repair and Alteration of Vessels) provides the authority for the Navy and other agencies to utilize special contracting methods for the repair and alteration of vessels. For acquisition of Firm-Fixed-Price contracts, the Master Agreement for Repair and Alteration of Vessels, or Master Ship Repair Agreement (MSRA), is the vehicle used to contract for the repair and alterations of ships of Frigate Guided Missile (FFG-7) Class-size or larger and the Agreement for Boat Repair (ABR) is the vehicle used to contract for boat or craft overhaul and repair work, or selective component, or selective ship repair work.

The MSRA and ABR are not contracts and contain no specifications or statement of work. The agreements are primarily a compilation of required clauses which are peculiar to ship repair and overhaul work and contain certain general terms and conditions under which the Navy or any other DoD agency can issue firm-fixed-price job orders for efforts involving repairs or alterations. The clauses which are to be included in each agreement are listed in DFARS 217.7104.

A contract comes into existence when a proper job order is issued against either type of agreement. Only firm-fixed-price job orders may be awarded under MSRAs or ABRs, and these job orders may only be issued to contractors who have previously executed an agreement based on an on-site review of their facilities, organization and manning, production capabilities, and financial standing. Refer to the JFMM Volume VII, Chapter 3 for more information on the MSRA/ABR Program.

3.6.3.3.2 Complex and Refueling Overhauls of Nuclear-Powered Aircraft Carriers and Submarines

Complex and refueling overhauls of nuclear-powered aircraft carriers and submarines assigned to the private sector are not procured through the Master Ship Repair Agreement, but by NAVSEA in a manner similar to that for new construction or conversion of vessels. These contracts may be either cost-reimbursement or fixed-price, and the assigned SUPSHIP performs the functions of Contract Administration Office (CAO).

3.7 Overview of Contract Procurement Methods

3.7.1 Policy for Full and Open Competition

10 USC 2304 and 41 USC 253 require, with certain limited exceptions (see FAR 6.2 and 6.3), that Contracting Officers shall promote and provide for full and open competition in soliciting offers and awarding Government contracts.

3.7.2 Contracting Methods

Contracting methods generally fall into one of three procedures:

1. Simplified Acquisition Procedures (FAR 13.3)
2. Sealed bidding (FAR Part 14)
3. Contracting by negotiation (FAR Part 15)

3.7.2.1 Simplified Acquisition Procedures

Simplified acquisition procedures may be used for acquisitions that do not exceed the simplified acquisition threshold (see “simplified acquisition threshold” under FAR 2.101 for current threshold and exceptions). These procedures are used to:

- reduce administrative costs
- improve opportunities for small, small-disadvantaged, women-owned, veteran-owned, HUBZone, and service-disabled veteran-owned small business concerns
- promote efficiency and economy in contracting
- avoid unnecessary burdens for agencies and contractors

Because of the relatively low threshold, use of simplified acquisition procedures in the SUPSHIP community is generally limited to satisfy organic requirements in support of the command mission.

3.7.2.2 Sealed Bidding

The purpose of sealed bidding is to realize the price and other benefits derived from full and open competition. FAR 6.401

states that Contracting Officers shall solicit sealed bids if:

- time permits the solicitation, submission, and evaluation of sealed bids
- award will be made on the basis of price and other price-related factors

- it is not necessary to conduct discussion with the responding offerors about their bids
- there is a reasonable expectation of receiving more than one sealed bid (competition)

All four of these conditions must be met in order to use sealed bidding; otherwise, Contracting by Negotiation must be used. Achieving these goals depends entirely upon the existence of real competition among bidders and upon the integrity of the system throughout its operation. Each bidder must be put on an equal basis and given the same opportunity to develop and submit the best bid initially. Sealed bidding procedures are described in detail in FAR Part 14.

Because of the limited flexibility afforded by sealed bidding, its use requires the approval of the cognizant NAVSEA 02 Division Director or Deputy, except for acquisition of commercial items (see NCH 14.103-2).

3.7.2.3 Contracting by Negotiation

Congress has recognized sealed bidding cannot satisfy all procurement requirements and has authorized procurement by means of negotiation in accordance with FAR Part 15. A contract awarded by means other than sealed bidding is a negotiated contract. Negotiation has an inherent flexibility that is almost completely absent from sealed bidding. Negotiated contracts can be made with or without competition, and contractors that submit an offer may or may not be aware of the presence or absence of competition when establishing their prices. The flexibility of the negotiation provides the means of achieving a fair and reasonable pricing basis without reliance upon competitive pressure alone. Negotiated contracts are solicited through Requests for Proposals (RFPs).

3.7.2.3.1 Best Value Contracting

Best Value Contracting (BVC) is a competitive contracting process requiring projects to be awarded to the contractor offering the best combination of price and other factors instead of just the lowest bid. It is an approach for awarding contracts that, when properly designed and administered, rewards high-performance contractors who have trained, skilled workers and other essential qualifications for performing high quality projects in a safe, timely, and cost-efficient manner.

BVC is used in relation to Request for Proposal procedures, but it may also be referred to by other terms in the commercial business environment, such as "competitive sealed proposal contracting," or "negotiated contracting." Because the award decision is not based on price or price-related factors alone, BVC is never accomplished under Sealed Bidding (IFB) procedures.

Under the BVC process, submission of proposals is typically open to qualified contractors who submit detailed information on their past performance and qualifications in response to the Request for Proposal.

3.7.2.4 Comparison of Sealed Bidding and Contracting by Negotiation

The following table illustrates the differences between Sealed Bidding and Contracting by Negotiation.

Sealed Bidding	Contracting by Negotiation
Requirements must be well-defined.	Requirements may be less than well-defined.
Must have adequate competition.	May be competitive or sole source.
Uses an Invitation for Bid (IFB) solicitation.	Uses a Request for Proposal (RFP) solicitation.
Award based on price and price-related factors	Award based on evaluation criteria.
No discussions allowed.	Discussions/negotiations expected.

Table 3-2: Comparison of Requirements for Sealed Bidding and Negotiation

3.7.2.5 Business Clearances

The purpose of a business clearance is to demonstrate that the proposed acquisition conforms to good business practice, law, or regulation, and to justify, by written evidence, that the cost and price established are fair and reasonable. In addition, a business clearance serves as the historical record of the business cost and pricing aspects of an acquisition and contains all required approvals by higher authority. See section 3.8.9.3 of this chapter for information regarding business clearances.

3.7.3 Writing Contracts

3.7.3.1 Uniform Contract Format (UCF)

FAR requires the use of a Uniform Contract Format for most contracts procured by sealed bidding (FAR 14.201) or negotiation (FAR 15.204). This Uniform Contract Format is organized into the following parts and sections:

Part I – Schedule

Section A: Solicitation/contract form

B: Supplies or services and prices/costs

C: Description/specifications/work statement

D: Packaging and marking

E: Inspection and acceptance

F: Deliveries and performance

G: Contract and administration data

H: Special contract requirements

Part II - Contract Clauses

Section I: Contract clauses

Part III - List of Documents, Exhibits, and Other Attachments

Section J: List of attachments

Part IV - Representations and Instructions.

Section K: Representations, certifications, and other statements of offerors

L: Instructions, conditions, and notices to offerors or respondents

M: Evaluation factors for award

3.7.3.2 Standard Procurement System (SPS)

Standard Procurement System (SPS) is an automated contracting system that was created by DoD in order to standardize procurement processes and provide an effective means to maintain a “paperless” procurement environment. SPS assists the procurement professional by providing both a contract writing tool as well as an automated system for contract administration, from initial award through contract closeout, including migrated awards. Migrated awards refer to contract documents that were not created in SPS, but are loaded manually into the system. Normally awards that are migrated are those that were either awarded prior to deployment of SPS, or were issued by non-SPS users and subsequently transferred to a SUPSHIP for contract administration. All NAVSEA personnel involved in the procurement process, including Contracts, Projects, and Comptroller Office personnel, are required to use SPS.

SPS is used for all awards issued by NAVSEA, including:

- Contracts
- Modifications
- Purchase Orders
- Indefinite-Delivery Contracts (Single and Multiple Awards)

- Delivery Orders under Single and Multiple Award Indefinite-Delivery Contracts
- GSA (Federal Supply System (FSS)) Orders
- Agreements
- Contract Awards placed against Basic Agreements
- Orders against Basic Ordering Agreements

Award actions are transmitted on a daily basis to the DFAS Electronic Document Access (EDA) site. This site serves as DoD's central repository for all award documents. The DFAS EDA site may be accessed at DFAS EDA. Award actions not created in SPS will be manually uploaded to the EDA site.

3.7.4 Socioeconomic Programs

Subchapter D of FAR (Parts 19-26), Socioeconomic Programs, describes specific contracting requirements in support of small business programs, application of labor laws, environmental and occupational safety considerations, protection of privacy and freedom of information, foreign acquisitions, and other socioeconomic programs. For the purposes of this manual, small business programs are addressed below; environmental and safety matters are addressed in Chapter 12, "Environmental, Safety, and Health."

3.7.4.1 Small Business Programs

In Federal acquisitions, it is the policy of the Government to provide maximum practicable opportunities to small business, veteran-owned small business, service–disabled veteran-owned-small business, historically underutilized business zone small business, small disadvantaged business, and women-owned small business. Within the Department of the Navy, these businesses are considered to fall within the Small Business Program. Such concerns must have the maximum practicable opportunity to participate as subcontractors in the contracts awarded by any executive agency, consistent with efficient contract performance. The Small Business Administration (SBA) counsels and assists small business concerns and assists contracting personnel to ensure that a fair proportion of contracts for supplies and services is placed with small business. For NAVSEA procurements, the Office of the Secretary of the Navy (OSN) assigns an annual goal for small business programs that is based on a share or percentage of total obligated dollars. The Commander, NAVSEA is responsible for achievement of program goals and implementation pursuant to reference (g), SECNAVINST 4380.8C, FAR Part 19, DFARS Part 219, NMCARS Part 5219, and NCH Part 19.

The Procurement Performance Management Assessment Plan (PPMAP) conducted by NAVSEA includes assessment of the SBP for both prime and subcontracting administration pursuant to guidelines developed by OSN.

3.7.4.1.1 Deputy for Small Business

SECNAVINST 4380.8C assigns responsibility for SBP implementation to commanding officers of contracting activities and contract administration activities. Commanding officers are required to appoint a full- or part-time Deputy for Small Business, who reports directly to the commanding officer on overall SBP implementation at the activity. The appointment directive should reference the pertinent responsibilities in FAR 19.201, DFARS 219.201, and NMCARS 5219.201. Individuals appointed shall possess business acumen, knowledge of contracting policies and procedures, and the training and background essential to accomplish the objectives of the Small Business Program. A copy of the written appointment, or termination of appointment, should be forwarded to the NAVSEA Small Business Program Office (NAVSEA 00K).

3.7.4.1.2 Subcontracting Program Administrator

FAR 19.705-1 through 19.707 contains responsibilities of the Contracting Officer, the Small Business Specialist, the ACO, and the Small Business Administration representative for implementation of Public Law 95-507. These responsibilities include documenting and monitoring contractor performance on subcontracting plans included in a contract. These responsibilities are also addressed in DFARS 219.706(a)(ii)).

When invoked in the contract, Clause 52.219.9, Small Business Subcontracting Plan, imposes requirements on contractors regarding their subcontracting plans and requires periodic reports. Contractors are able to satisfy this requirement through the use of the Electronic Subcontracting Reporting System (eSRS), an electronic, web-based system that replaces the SF-294 and SF-295 paper forms. For additional information, visit the official eSRS website at http://www.esrs.gov.

3.7.4.2 Assignment of Contract Administration

A SUPSHIP performing contract administration under a plant cognizance assignment may require performance of quality assurance, source inspection, etc., at a subcontractor's plant that is under the cognizance of another Federal CAS component. In such a case, the SUPSHIP is to request the responsible CAS component to perform the CAS as prescribed by FAR 42.202.

3.7.4.3 Contract Manager Representatives

The SUPSHIP points of contact for contracting matters are the Shipbuilding Contracts Division (NAVSEA 022) for new construction contracts, the Fleet Support Contracts Division (NAVSEA 024) for maintenance and modernization contracts, and the Surface Systems Contracts Division (NAVSEA 025) and Undersea Systems Contract Division (NAVSEA 026) for shipboard weapons systems.

3.7.4.4 Correspondence and Visits

Refer to FAR 42.4 for contract administration correspondence, pertinent correspondence conducted between the Contract Administration Office (CAO) and the contractor, and visits to contractor's facilities.

3.7.4.5 Contracting Officer Certificate of Appointment

NAVSEA 02 appoints all SUPSHIP contracting officers, including Corporate ACO warrants and leasing warrants.

3.7.4.6 Project Manager Representatives (PMRs)

Reference (h), NAVSEAINST 5400.60A, identifies the responsibilities, tasks, and reporting relationships of Project Manager Representatives (PMRs) located on-site at SUPSHIP offices. A PMR is authorized to act on behalf of the acquisition program manager where direction or guidance is required to the ACO or to the contractor through the ACO. The PMR will be assigned duty to a particular SUPSHIP, but will function as a resource of the Acquisition Program Manager. See Chapter 5, “Project Management,” for more information regarding the responsibilities and reporting relationships of the PMR.

3.7.5 Involvement

Involvement, previously called engagement, is defined as aggressive contract administration based on an in-depth knowledge of the contractor's operations, especially any weaknesses in areas such as policies, procedures, and performance.

Reference (i), DoD Directive 5000.01, incorporates new laws and policies, including reference (j), the Federal Acquisition Streamlining Act (FASA) of 1994, and the institutionalization of Integrated Product Teams (IPTs). A major theme of the policy improvements is teamwork, with the goal of creating an acquisition system that capitalizes on the strengths of each and every participant. Involvement relates directly to these initiatives.

3.7.5.1 Implementation of Involvement (New Construction)

SUPSHIP will promulgate instructions that clearly delineate the responsibilities of SUPSHIP organizational components for implementing involvement. Instructions should describe functions performed by SUPSHIP personnel, by other Government agencies, and scheduling and coordinating responsibilities of SUPSHIP personnel for those agency functions. The local instructions also should list contractual requirements for data and reports the contractor furnishes the Government for involvement. Furthermore, the local instructions must provide for implementation of the total SUPSHIP responsibility for contract administration.

In general, the Supervisor or a designated individual is the coordinator for contract involvement. Implementation of involvement crosses all SUPSHIP departmental lines. It is important to note that just because SUPSHIP designates a coordinator for involvement, it does not in any way relieve personnel of the various SUPSHIP organizations from taking timely, vigorous action on matters within their cognizance.

The primary functions of the coordinator are:

- providing visibility for involvement within the SUPSHIP and serving as a focal point for overall analysis of contractor performance

- providing additional focus on Government actions required to resolve problems
- becoming aware of slippages, overruns, and other deficiencies as early as possible and enabling SUPSHIP to take action or to alert NAVSEA in sufficient time to take corrective measures not within SUPSHIP authority

Effective involvement requires a meshing of the SUPSHIP organization with the contractor organization at all echelons to ensure the SUPSHIP is completely informed of events and plans pertaining to contract performance. Personnel must recognize and anticipate problems in contract performance.

3.7.5.1.1 Prerequisites and Primary Sources of Information for Involvement

Prerequisites for implementing involvement include SUPSHIP analyses and input prior to contract award, establishment of Government and contractor understandings of mutual responsibility before or immediately after award, and proper use during contract performance of information sources inside and outside the SUPSHIP office.

Pre-involvement begins before contract award, when, and if NAVSEA, requests SUPSHIP to review the proposed specifications. Subsequently, SUPSHIP may be required to perform an evaluation of the prospective contractor's proposal and a pre-award survey. At that time, SUPSHIP can provide significant input to the Program Manager and the PCO. This input, when acted upon, increases the probability that SUPSHIP will successfully practice involvement after contract award. For example, during the evaluation, SUPSHIP should look for errors or ambiguities in areas such as contract provisions, specifications, contractor estimating, use of contract type and structuring, and contractor data, and report them. The pre-award survey report should note all deficiencies in facilities and management systems, especially those which SUPSHIP could not have the contractor correct on previous contracts. Special notice should be taken of the delivery schedule if it appears unrealistic when compared to the known and expected facility and manpower capacity of the yard and workload.

The starting point for actual involvement after contract award is an understanding of both contractor and Government responsibilities for carrying out the contract terms and conditions. This is usually achieved at a post-award conference. SUPSHIP personnel must recognize that, for the contractor to fulfill his/her requirements, SUPSHIP must promptly and effectively perform its required functions and provide the contractor property, data, approvals, and information which the contract specifies as Government-furnished. Furthermore, no Government personnel (except those holding contractual authority and acting within the scope of such authority) may properly take an action that modifies or changes a contract requirement. Also, the contract must be reviewed and an understanding reached with the contractor on what data he/she is required to provide to assist involvement, and what the Government will provide to permit the contractor to perform contract requirements at the least cost and within the specified schedule.

The primary source of information to assist involvement is the contractor. Such information is provided by contractual requirement and by extra-contractual arrangements between SUPSHIP and the contractor. If the contractor and Government make any extra-contractual arrangements, they should be documented by a Memorandum of Understanding (MOU) or Memorandum of Agreement (MOA) developed in conjunction with legal counsel.

Information required by the contract may include data such as a list of drawings and cost, progress, and manning reports. Each contract contains a DD Form 1423 which lists data the contractor is required to provide. Some required information results from extra-contractual arrangements that the SUPSHIP has made with the contractor for access to the contractor's internal reports prepared for management information. This information may include reports of production and scheduling, meetings, subcontractor delays and noncompliance with contractual requirements, manpower loading, internal audits, financial statements, and cash flow forecasts.

A post-award orientation aids both the Government and contractor personnel to (1) achieve a clear and mutual understanding of all contracting requirements, and (2) identify and resolve potential problems. However, it is not a substitute for the contractor fully understanding the work requirements at the time offers are submitted, nor is it to be used to alter the final agreement arrived at in any negotiations leading to contract award.

Many sources of information outside the SUPSHIP office provide data necessary for carrying out involvement. One important source is the cognizant DCAA. In addition to primary responsibility for performing auditing functions, the DCAA has been assigned a secondary responsibility to assist SUPSHIP in contract administration. Therefore, the SUPSHIP, in discharging its responsibility for total contract administration, must coordinate its efforts with those of DCAA so that DCAA performs the required functions in a proper and timely manner. SUPSHIPs should provide the DCAA with annual workload forecasts so the agency can schedule audits and reviews. When available DCAA manpower is inadequate to provide timely assistance on a SUPSHIP contract because of other DoD contractual responsibilities, SUPSHIP should advise NAVSEA 02.

The responsibilities of DCAA include:

- auditing review of the prospective contractor's proposal for pricing the contract
- assisting SUPSHIP in performing a pre-award survey
- auditing review of the contractor's proposal for pricing changes to the contract
- reviewing labor and overhead rates
- assisting SUPSHIP in reviewing the contractor's procurement system
- reviewing the contractor's estimating system, with SUPSHIP assistance

- performing post-audits on the accuracy, completeness, and currency of contractor-certified cost or pricing data submitted for negotiation in compliance with Public Law 87-653
- reviewing the contractor's invoices on costs incurred and provisional approval of payment for cost-reimbursement contracts
- reviewing the contractor's management, financial, accounting, and scheduling systems
- reviewing the contractor's material cost to establish material progress
- reviewing the contractor's certification on total cost and material costs on progress payment invoices
- reviewing costs incurred by the contractor to establish allowability
- reviewing the contractor's overtime
- reviewing the contractor's cost accounting standards
- reviewing the contractor's certified-cost statement for escalation

Other important sources of information outside the SUPSHIP office include:

- NAVSHIPSO: This office prepares schedules, based on statistics compiled from previous ship acquisition programs, for material ordering and erection of the ship; however, neither the contractor nor the Government is usually contractually bound by them.
- DCMA: DCMA offices having cognizance of subcontractors can provide useful information, particularly information on critical items requiring source inspection by the DCMA. The DCMA offices can provide forecasts of delivery dates for material and take appropriate expediting actions, especially for late items essential for meeting contract specific dates. The DCMA offices can also alert the SUPSHIP to subcontractor quality problems.
- Program Managers: Program Managers can provide information on the funding of contracts and Headquarters Modification Requisitions (HMRs) which are under consideration and could have significant cost and schedule impact.

The SUPSHIP organizational components can also generate and provide much useful information.

Appropriate components independently prepare and receive reports from the contractor, perform reviews and analyses within the cognizant areas, and process requests from the contractor for information, assistance, contract changes, waivers, and deviations. The

SUPSHIP organizational components also prepare reports of meetings and conversations between SUPSHIP and contractor personnel.

3.7.5.1.2 Dealings and Meetings with the Contractor

SUPSHIPs should attempt to develop mutual trust, cooperation, and confidence with contractors to promote an atmosphere conducive to good business relations. Both close personal relationships and antagonistic relationships should be avoided to the maximum extent.

To establish such an atmosphere, the Supervisor may hold regularly scheduled meetings with a counterpart in the shipyard. During such meetings, the status of contract performance problems and requirements for SUPSHIP or NAVSEA action should be reviewed and time schedules established for resolving problems. Any conflicts between SUPSHIP and contractor personnel should be reviewed and resolved before they become major problems in contract administration.

All SUPSHIP personnel must be constantly on guard to ensure that a constructive change is not created in implementing the involvement concept. When it appears that there is no contractual basis for a corrective action or other action desired of the contractor, the ACO must be consulted before the contractor is requested or directed to take such action. All direction to the contractor must be processed through the ACO.

3.7.5.1.3 SUPSHIP Actions

Identifying, analyzing, and documenting significant events is important to proper involvement, effective contract monitoring, and effective claims programs. Details on these important functions are in NMCARS 5233.90.

In administration of new construction, conversion and complex overhaul contracts, Government-proposed contract modifications have the potential for contract delay costs and significant disruption or loss of efficiency costs. In support of negotiations for such modifications, the Supervisor should require of the contractor: (1) time impact analysis illustrating the influence of the Government-proposed modification on the contract schedule, including, but not limited to, a fragmentary network (with relationships, durations, resources, budgets, etc.) demonstrating how the contractor proposes to incorporate the change into the production schedule, and (2) documents, reports, and analyses in support of the requested disruption or loss of efficiency estimate/costs. Any methodology which assumes causation should not be relied upon.

Unsatisfactory contractor work should be reviewed to ascertain the effect of corrections on schedule and cost of performance. For cost-type contracts, the expense of correcting unsatisfactory work is generally an allowable cost borne by the Government. Therefore, for such contracts, involvement dictates ensuring that the contractor's quality assurance system identifies unsatisfactory work as soon as possible to minimize the cost of corrections.

Since the Navy is essentially a self-insurer, it pays for property loss or damage to both Government-furnished and contractor-furnished property, less any deductible if applicable. SUPSHIP must ensure against a pattern of insurance claims indicating that management is not concerned with loss or damage to property for which the Government is liable. When such a pattern appears to be developing, the contractor should be notified that corrective actions are required. Command Legal Counsel or NAVSEA OOL should be consulted on the wording of such a notice.

The SUPSHIP should hold regular meetings with the cognizant DCAA office to coordinate its reviews. Meeting agendas should include review schedules as well as findings for reviews in process or previously conducted. In addition, the agenda should include discussion of the corrective actions the contractor is taking.

Surveillance of the contractor's Earned Value Management System (EVMS) is another critical function performed by the SUPSHIP. Refer to SOM Chapter 7, “Earned Value Management,” for a more detailed discussion of this topic.

An important aspect of involvement is to ensure that the Government's responsibilities are carried out in a timely manner. Accordingly, requirements for Government-Furnished Material (GFM) listed in Schedule A and Government-Furnished Information (GFI) listed in Schedule C of the contract should be progressed to ensure on-schedule delivery. If it appears that delivery of GFM or GFI may be late, discussions should be held with the Program Manager on the appropriate corrective action. Similar action may be required when it appears that GFI may be late. In addition, SUPSHIP action may be required to ensure a timely response when the contractor requests data or when Government approval is required. The SUPSHIP must react quickly to Government Property Problem Reports (GPPRs) when the contractor finds a deficiency with Government-Furnished Property (GFP). In such instances, SUPSHIP should provide regular reports to the coordinator regarding involvement on GFM and GFI responses or approvals which are or may be late, require repair or replacement, and the expediting actions being taken.

On contracts which contain the Problem Identification Reports clause, SUPSHIP must ensure that the contractor complies with its requirements, especially submission of reports, when indicating SUPSHIP reasonably can anticipate the occurrence of any contract problem. When SUPSHIP anticipates a problem which would require a report under this clause, but the contractor has failed to submit a report, it will hold discussions with the contractor. If the contractor refuses to submit a report, SUPSHIP should prepare and submit the report.

On contracts which contain the Technical Data Withholding of Payment clause, the contracting officer may withhold, under certain circumstances, a portion of the total contract price until the contractor delivers acceptable data. SUPSHIP should exercise the rights of the Government when data is untimely or unsatisfactory. This withholding will serve as an incentive to the contractor to comply with the contractual requirements.

Because subcontracting, including material orders, may constitute 50 percent or more of total contract costs, SUPSHIP surveillance of subcontract operations is another important aspect

of involvement. A SUPSHIP instruction should set forth the elements and organizational responsibilities for the surveillance plan for subcontracting operations. The plan should include reporting requirements for findings and specify that the coordinator for involvement should receive copies of such reports. The coordinator should ensure that timely corrective action is taken by the contractor regarding deficiencies found by SUPSHIP personnel during the surveillance of subcontract operations. See section 3.12 for more information on subcontracts.

3.7.5.2 Implementation of Involvement (Repair/PSA)

Refer to JFMM Vol VII Section 2.8.6 for guidance regarding implementation of involvement for ship repair and modernization contracts, including Post Shakedown Availabilities.

3.7.6 Files of Contract Actions

3.7.6.1 Introduction

FAR 4.8 (Government Contract Files) requires the head of each office performing contracting, contract administration, or paying functions to establish files containing the records of all contractual actions. The documentation in the files must be sufficient to constitute a complete history of the transaction.

3.7.6.2 General

A contract file should generally consist of:

- procuring contracting office contract file, which will document the basis for the acquisition and the award, the assignment of contract administration (including payment responsibilities), and any subsequent actions taken by the Contracting Officer (FAR 4.803(a))

- contract administration office contract file, which will document actions reflecting the basis for, and the performance of, contract administration responsibilities (FAR 4.803(b))

- paying office contract file, which will document actions prerequisite to, substantiating, and reflecting contract payments (FAR 4.803(c))

Contents of contract files that are proprietary or contain source selection information will be protected from disclosure to unauthorized personnel.

3.7.6.2.1 Contents of Contract Administration Office (CAO) Contract Files

FAR 4.803(b) provides an extensive list of documents required to be maintained in the CAO Contract Files. The majority of these documents are prepared and maintained entirely within the Contracts Department, and is not intended to duplicate this listing here. It is important,

however, that SUPSHIP personnel working outside the Contracts Department know the types of documents that must be provided for the CAO Contract file. These include:

- copy of all modifications and supporting documents
- security requirements, including the Contract Security Classification Specification, DD Form 254
- cost and pricing data, Certificates of Current Cost or Pricing Data, cost or price analysis, and other documentation supporting contractual actions executed by the contract administration office
- post-award conference records
- orders issued under the contract
- notice to proceed and stop orders
- progressing, expediting, and production surveillance records. These are to be maintained separately to facilitate early disposal (six months after final payment), and include records such as:
    - Production plans and delivery schedules;
    - Progress or status reports;
    - Advice of delays or delinquencies and of corrective and production follow-up actions; and
    - Documents reflecting deliveries or production completion.
- QA and control (inspection) records used in planning, conducting, and recording product verifications, testing, reviewing quality programs and plans, evaluating procedures and processes or technical performance, and effecting corrective actions, where required, are to be maintained separately for earlier disposal and include:
    - QA records, such as reference to contractor's Quality Program document and disapproval, if any; subcontract inspection control records (request for source inspection and waiver of usual inspection procedures); inspection requests, agreements, and assignments; requests for waivers and deviations and copy of approvals or disapprovals, if any (including Material Review Board decisions); and, required inspection and test reports.
    - Quality control (inspection) records, such as quality program review reports (procedures and processes evaluation, periodic quality assurance survey); Government inspection and test reports; authority to ship and acceptance documents (e.g., Transportation Control and Movement Document, DD Form

1384; Material Inspection and Receiving Report, DD Form 250; Order for Supplies or Services/Request for Quotations, DD Form 1155); routing requests and orders, and shipment bills of lading (DD Form 250 may be excluded when maintained in paying office file and paying office is located at the contract administration office); reports of unsatisfactory material and corrective actions, and reports of damaged or improper shipments; and other papers necessary to document the quality control or inspection function.

- Property administration records used in the administration of Government property provisions of the contract (these are to be maintained separately for disposition) include:
    - Contract number, type of contract, and contractor name and address;
    - End item(s) and points of inspection and acceptance;
    - Listing and type of subcontracts which involve Government property or reference to location of such information;
    - Record of secondary administration assignments;
    - Reports relating to Government property

3.7.6.2.2 Contents of Paying Office Contract Files

This file should contain:

- copy of the contract and any modifications
- bills, invoices, vouchers, and supporting documents including:
    - shipment, acceptance, or receiving reports, such as DD Forms 250 and 1155 (Note: file DD Forms 250 and 1155 as a separate file series when such a filing will facilitate compilation of contract status and statistical reports)
    - authorizations for advance and progress payments
- record of payments or receipts
- other pertinent documents

3.7.6.3 Changes Files

SUPSHIP Contracts Departments maintain a separate file for each change for which the department is responsible. This file should be maintained to permit a ready reconstruction of all phases of the contractual action. Any of the documentation listed in the above sections will be included, where applicable. As a minimum, the file will include the following:

- the change, including any modifications, and the contractor's written scope of the change
- Government's preliminary estimate
- contractor's proposal
- auditor's advisory report
- memorandum of business clearance on the change
- resultant supplemental agreement
- all other pertinent correspondence and documentation

3.7.6.4 Access to Files

According to the provisions of reference (k), the Budget and Accounting Act of 1921, authorized representatives of the GAO will be given access to examine such records as necessary to permit the representatives to carry out their required duties and responsibilities. In addition, Navy auditors are authorized access to any management information within the DoN consistent with the purpose of the audit and security clearance of the individual auditor. Reference (l), NAVSEAINST 5400.1F**, the NAVSEA Headquarters Organizational Manual, states that NAVSEA 021 is responsible for providing NAVSEA 02 liaison in connection with reviews, surveys, audits, and investigations of the GAO and the Naval Audit Service.

3.8 Processing Contract Change Proposals

3.8.1 Introduction

This section covers the policies, activities, and procedures in processing contract change proposals. The process begins when a change to the contract is initiated by the requiring activity that may affect the specifications, terms and conditions, and/or cost of the contract. It includes submission of the contractor’s proposal, proposal analysis, and preparation of the pre-negotiation position through adjudication of the contract modification.

Not every action covered will apply to every proposal; however, the guidance provided can be used to readily determine the applicability of various actions.

3.8.2 Contract Modifications

3.8.2.1 Introduction

This section covers the more pertinent regulatory requirements regarding contract modifications contained in the FAR, DFARS, and NMCARS. The NAVSEA Contracts Handbook (NCH) contains extensive coverage of the various types of contract modifications.

** Denotes secure hyperlink requiring NMCI/CAC access

The requirements apply to both new construction and repair and overhaul contracts, where appropriate, unless otherwise indicated.

3.8.2.2 Definitions

"Administrative change" means a unilateral (see FAR 43.103(b)) contract change, in writing, that does not affect the substantive rights of the parties (e.g., a change in the paying office or the appropriation data).

"Change order" refers to a written order signed by the Contracting Officer as authorized by the Changes clause. It is unilateral direction to the contractor to carry out the requirements of the change without requiring the contractor's consent (FAR 43.201).

"Contract modification" means any written change in the terms of a contract.

"Effective date" has one of the following meanings, based on the circumstances in which it is used:

- For a solicitation amendment, change order, or administrative change, the effective date will be the issue date of the amendment, change order, or administrative change.
- For a supplemental agreement, the effective date will be the date agreed upon by the contracting parties.
- For a modification issued as a confirming notice of termination for the convenience of the Government, the effective date of the confirming notice will be the same as the effective date of the initial notice.
- For a modification converting a termination for default to a termination for the convenience of the Government, the effective date will be the same as the effective date of the termination for default.
- For a modification confirming the Termination Contracting Officer's previous letter determination of the amount due in settlement of a contract termination for convenience, the effective date will be the same as the effective date of the previous letter determination.

"Supplemental agreement" means a bilateral contract modification that is accomplished by the mutual action of the parties.

3.8.2.3 Policy

Only Contracting Officers acting within the scope of their authority are empowered to execute contract modifications on behalf of the Government. Other Government personnel will not:

- execute contract modifications

- act in such a manner as to cause the contractor to believe that they have authority to bind the Government
- direct or encourage the contractor to perform work that should be the subject of a contract modification

Contract modifications, including changes that could be issued unilaterally, will be priced before their execution if this can be done without adversely affecting the interest of the Government. If a significant cost increase could result from a contract modification and time does not permit negotiation of a price, at least a maximum price will be negotiated unless impractical.

DoN policy is to avoid use of contract modifications for additional quantities as a means of purchasing new requirements of supplies, when such a procedure would result in prolonging the life of a contract beyond the time when final settlement would normally be made.

3.8.2.4 Types of Contract Modifications

There are two types of contract modifications; bilateral and unilateral. A bilateral modification (supplemental agreement) is a contract modification that is signed by the contractor and the contracting officer. Bilateral modifications are used to:

- make negotiated equitable adjustments resulting from the issuance of a change order
- definitize letter contracts
- reflect other agreements of the parties modifying the terms of contracts

A unilateral modification is a contract modification that is signed only by the Contracting Officer. Unilateral modifications are used to:

- make administrative changes
- issue change orders
- make changes authorized by clauses other than a changes clause (e.g., Property clause, Options clause, Suspension of Work clause, etc.)
- issue termination notices

3.8.2.5 Order of Preference for Contract Change Modifications

The order of preference for contract modifications is as follows:

- A fully-priced supplemental agreement (bilateral)

- A maximum/minimum priced supplemental agreement (bilateral)
- An unpriced supplemental agreement (UPSA) (unilateral)
- A “13H” unresolved responsibility work item (bilateral)
- Change Order

3.8.3 Contract Change Pricing

This section briefly discusses the pricing of contract changes.

3.8.3.1 Objective of Contract Change Process and Pricing

The objective of the contract change process is to acquire the desired specification change or any new terms and conditions in a timely manner at a "fair and reasonable" price. Within this framework, the objective of contract pricing is to establish and administer an arrangement that poses a fair and reasonable price for the change. A fair and reasonable price is fair to both contract parties considering the quality and timeliness of contract performance.

3.8.3.2 Pricing Responsibility

The Contracting Officer is responsible for exercising proper judgment and is solely responsible for the final pricing decision; however, NAVSEA prefers the use of the team concept in conducting negotiations. The requiring activity normally is required to perform an analysis of the contractor’s proposal in the areas of material, subcontracts, labor hours, and other direct costs. This report is known as the Technical Advisory Report (TAR) and is submitted to the Contracting Officer.

The recommendations and counsel of contributing specialists, including auditors, are advisory only; however, the Contracting Officer should include comments in the price negotiation memorandum when significant auditor or other specialists' recommendations are not adopted.

3.8.3.3 Forward Pricing Rate Agreements (FPRA)

An FPRA is a written agreement negotiated between a contractor and the Government to establish direct and/or indirect rates available during a specified period for pricing contracts or modifications. Such rates represent reasonable projections of specific contractor’s rates. These projections may include rates for labor, indirect costs, material obsolescence and usage, spare parts provisioning, and material handling. Negotiation of FPRAs may be requested by the PCO, the contractor, or initiated by the ACO. In determining the need for an FPRA, the ACO should evaluate whether the benefits from the agreement are worth the effort of establishing and monitoring it. Normally, FPRAs should only be negotiated with contractors having a significant volume of Government contract proposals. The cognizant SUPSHIP will determine whether to establish an FPRA.

Indirect costs, commonly defined as overhead, are defined and described in FAR 31.203, along with the criteria for treatment and application of these indirect costs in contracts.

3.8.3.4 Pricing of Deleted Work

If a contract change will involve deleted work, the price should be based on the reasonable value of the work at the time of performance. The value of deleted work should not be based on itemized estimates provided by the contractor at the time of contract award. The value of deleted work should include all costs reasonably associated with the deleted work, including profit.

3.8.3.5 Adjudications on the Basis of Estimates

NAVSEA policy requires changes to be adjudicated on the basis of estimates; therefore, adjudications will not be deliberately delayed to allow the determination of actual incurred costs from which to adjudicate.

3.8.4 Proposal Analysis

3.8.4.1 General

The objective of proposal analysis is to ensure that the final agreed-to cost/price is fair and reasonable (FAR 15.404-1). The complexity and circumstances of each acquisition should determine the level of detail analysis required.

A proposal must be analyzed regardless of when the proposal is received. The proposals are evaluated using cost analysis and/or price analysis, depending upon the contract-type and the extent of evaluation needed. Price analysis shall be used when cost or pricing data are not required. Cost analysis shall be used to evaluate the reasonableness of individual cost elements when cost or pricing data are required and may be used to evaluate information other than cost and price data. Price analysis should be used to verify that the overall price offered is fair and reasonable. The Contracting Officer should request the advice and assistance of other experts to ensure that an appropriate analysis is performed.

The Contracting Officer, exercising sole responsibility for the final pricing decision, will coordinate a team of experts and request and evaluate the advice of specialists in such fields as logistics, finance, law, contract audit, quality control, engineering, technical, and pricing. The Contracting Officer should have the appropriate specialists attend the negotiations. The Contracting Officer may assign responsibility to a negotiator or price analyst for determining the extent of specialist advice needed, evaluating that advice, coordinating a team of experts, consolidating pricing data and developing a pre-negotiation objective, and conducting negotiations.

3.8.4.1.1 Definitions

“Cost analysis” means the review and evaluation of the separate cost elements and proposed profit of an offeror’s or contractor’s cost or pricing data which is part of the

proposal. Cost or pricing data is not required when adequate price competition is determined to exist in a particular procurement, nor should a detailed profit analysis be conducted (utilizing DD Form 1547); however, a cost or pricing realism analysis may be required. The goal is to evaluate the degree to which the proposed costs represent what the cost of the contract should be, assuming reasonable economy and efficiency.

“Cost or pricing data” refers to all facts that prudent buyers and sellers would reasonably expect to significantly affect price negotiations. This concerns data as of the date of price agreement or, if applicable, another date agreed upon between the parties that is as close as possible to the date of agreement on price. Cost or pricing data is information requiring certification in accordance with FAR 15.403.

“Price analysis” is the process of examining and evaluating a proposed price without evaluating its separate cost elements and proposed profit.

3.8.4.2 Subcontract Pricing Considerations

The Contracting Officer is responsible for the determination of price reasonableness for the prime contract. To make this determination, an analysis is required of all relevant facts and data, including required subcontractor cost or pricing data, results of the prime or higher tier subcontractor's analyses of subcontractor proposals, the field pricing support (if any), and historical pricing data. Even if a contractor or higher tier subcontractor has an approved purchasing system or performs an analysis of subcontractor cost or pricing data, the Contracting Officer or field pricing support team still has the responsibility of analyzing the prime contractor's submission, including the subcontractor cost or pricing data. The prime contractor or higher tier subcontractor is responsible, however, for conducting appropriate price and cost analysis before awarding a subcontract.

3.8.4.3 Use of Independent Estimates

Independent government estimates may be used in pricing sole source contracts and contract modifications less than the cost or pricing data threshold. An independent estimate forms the basis for pricing. Such estimates are to be made without reference to the supporting or back-up cost or pricing data of the contractor, nor will such data be requested when price analysis is to be employed. When cost or pricing data is submitted or identified, a cost analysis must be performed on the data.

3.8.4.4 Price Analysis

Price analysis shall be used when cost or pricing data are not required (FAR 15.404-1). Price is cost-plus any fee or profit applicable to the contract type. The Contracting Officer is responsible for selecting and using whatever price analysis techniques will ensure a fair and reasonable price.

Price analysis will generally be used in lieu of cost analysis, regardless of the dollar amount for contracts, where the conditions of FAR 15.403 are met (e.g., prices are based on adequate price competition).

3.8.4.5 Cost Analysis

This section contains an extended discussion of cost analysis. Topics include definitions, kinds of cost and pricing data, technical analysis, field pricing support, subcontract pricing, and purchased materials.

3.8.4.5.1 Cost or Pricing Data

Cost or pricing data submitted by an offeror or contractor enables the Government to perform cost or price analysis, and ultimately enables the Government and the contractor to negotiate fair and reasonable prices. Cost or pricing data should be submitted by specific identification in writing.

The Contracting Officer shall specify the format of the cost or pricing data submission unless submissions are required on one of the termination forms specified in FAR 49.6. Data supporting forward pricing rate agreements or final indirect cost proposals will be submitted in a format acceptable to the Contracting Officer. Table 15-2 in FAR 15.408 shows acceptable formats in which cost and pricing information may be requested.

3.8.4.5.2 Defective Cost or Pricing Data

If the Contracting Officer learns, before an agreement on price, that any cost or pricing data submitted are inaccurate, incomplete, or outdated, the Contracting Officer will immediately bring the matter to the attention of the contractor, whether the defective data increases or decreases the contract price. The Contracting Officer will negotiate the price either by using any new data submitted or by making satisfactory allowance for the incorrect data. The price negotiation memorandum will reflect the revised facts.

If cost or pricing data are found after award to be inaccurate, incomplete, or outdated at the date of final agreement on price given on the contractor's or subcontractor's Certificate of Current Cost or Pricing Data, the Government is entitled to a price adjustment, including profit or fee, of any significant amount by which the price increased because of the defective data. This entitlement is set forth in the appropriate clauses prescribed in FAR 15.408. These clauses give the Government the right to a price adjustment for defects in cost or pricing data submitted by the contractor, a prospective subcontractor, or a present subcontractor.

3.8.4.5.3 Cost Analysis Techniques and Procedures

To perform cost analysis, the Contracting Officer will use, as appropriate, the following techniques and procedures for verifying cost or pricing data and evaluating cost elements:

- necessity for and reasonableness of proposed costs, including allowances for contingencies
- projection of the offeror's cost trends on the basis of current and historical cost or pricing data

- technical appraisal of the estimated labor, material, tooling, facilities requirements, and the reasonableness of scrap and spoilage factors
- application of audited or negotiated indirect cost rates, labor rates, and cost of money or other factors

3.8.4.5.4 Technical Analysis

The purpose of a technical analysis is to establish the acceptability and reasonableness of the labor hours and material items contained in the contractor's pricing proposal or back-up records and data. The criteria to use are the applicable specification requirements, any work scope understanding reached, and the manner in which the work is to be accomplished by the contractor with the contractor's facilities and manpower. Technical analysis is not to be made on the basis of an independent estimate on the optimum method for accomplishing the change by the contractor or another shipyard. The evaluation is to be based on an analysis of the specifications, the proposal and back-up data prepared by the contractor, and in accordance with any work scope understanding.

Technical analysis is the examination and evaluation by personnel with special knowledge, skills, or experience in ship work, engineering, science, or management. They examine proposed quantities and kinds of materials, labor, processes, special tooling, facilities, and associated factors set forth in a proposal to determine and report on the need for and reasonableness of the proposed resources, assuming reasonable economy and efficiency.

The Contracting Officer should generally request a technical analysis of proposals if cost or pricing data is required or whenever the Contracting Officer deems necessary, asking that, as a minimum, appropriate qualified personnel review and assess:

- quantities and kinds of material proposed
- need for the number and kinds of labor hours and the labor mix
- special tooling and facilities proposed
- reasonableness of proposed scrap and spoilage factors
- other data that may be pertinent to the cost or price analysis

3.8.4.5.5 Allowability of Costs

The allowability of costs is determined by FAR 31 and supplements.

3.8.5 Technical Advisory Reports (TARs)

A Technical Advisory Report (TAR) will be prepared by the technical analyst on claims/proposals that meet threshold criteria established by the SUPSHIP. At any value below that threshold, and at the discretion of the negotiator, a “desk” TAR may be performed

by the negotiator. Usually the evaluation involves review of direct labor hours and costs associated with material, delay in delivery, and/or disruption costs; it will also include review of the contractor's estimating standards. The TAR should reflect the technical evaluation and its results. The TAR serves several essential purposes, including essential file documentation, advice to the negotiator and ACO, and advice to the auditor if an audit is to be conducted. The objective of the TAR is to establish the acceptability and reasonableness of the contractor's proposal and/or backup data and records.

3.8.5.1 Requirements

The TAR will contain a statement of the extent to which the analyst recognized that any cost or pricing data submitted or made available by the contractor was inaccurate, non-current, or incomplete. When the statement advises that there was defective data, the analyst will clearly delineate how the evaluation was conducted and the effect of deficient data on manhours or material dollars in the proposal and the analysis. Also, the TAR will clearly delineate the data not relied on during the evaluation. The TAR will reflect the technical analyst's professional judgment of the reasonableness of the manhours and material estimates in the contractor's proposal, the data accompanying the proposal, and the back-up data used by the contractor in preparing the proposal when a technical cost analysis is performed. The TAR will specifically address material which has been made excess or obsolete by a change and whether the Government has been given a credit or was charged for the material. The Government property administrator must be advised when title to Contractor Acquired Property (CAP) is to pass to the Government at the end of the contract.

If the technical analyst concludes the contractor's proposed labor hours and material are reasonable, the TAR must state the basis for the conclusion, e.g., historical data or actual return cost data. If, in the professional opinion of the technical analyst, the contractor's labor or material estimate is too high or too low in any area, the report must indicate the exact area of the proposal or back-up data in which the differences appear. The report also must indicate the rationale of the technical analyst and the contractor. Pinpointing the differences is essential for the TAR to be useful to the auditor or the negotiator. General statements of differences are of little or no use during negotiation.

The TAR will reference the local instructions and procedures followed in the evaluation instead of spelling out the steps in detail. When local instructions and procedures are not followed, the TAR will detail the steps taken in the evaluation and the rationale for not following the local instructions and procedures. The technical analyst will sign the TAR, which will be approved in accordance with local procedures. When independent estimates are made, the independent estimate will serve the purpose of a TAR. Technical analysts should, in particular, keep in mind that they should provide the negotiator with data which can be used in negotiations. For example, it does little good to state "the contractor's manhour estimate is too high and I know it is too high based on my personal experience." It would be far better for the technical analyst to demonstrate understanding of the scope of work (broken down into tasks), the trades/crafts involved, and reasonable manhours for each trade/craft.

3.8.5.2 Local Instructions and Procedures

SUPSHIPs will establish local instructions and procedures to cover the steps to take in conducting technical evaluations of various types of proposals and the preparation of TARs to submit under various circumstances. Such instructions and procedures will have the following advantages:

- practices among the technical analysts will be uniform
- essential steps and information will be included and unnecessary steps and information excluded
- formats for preparation of the TAR can be standardized and simplified to the maximum extent possible

Local instructions and procedures will stress that for non-complex, small, gross value proposals and changes, a more simplified procedure, such as a “Desk TAR”, may be employed. Desk TARS are somewhat abbreviated evaluations that are usually performed by the negotiator and require less involvement from personnel outside the Contracts Department.

Procedures will provide for notification of the Government Property Administrator when material has been made excess or obsolete by a change and the Government is charged for the material. This notification is necessary because title to such material will remain with the Government at the end of the contract, regardless of contract type.

3.8.6 Audit Evaluations and Field Pricing Support

3.8.6.1 Audit Evaluation

SUPSHIPs are not precluded from requesting audits regarding contractual modifications for less than the certified cost or pricing data threshold, where deemed necessary by the Contracting Officer. The audit evaluation to be performed by the auditor will be in accordance with the directives under which the auditor operates, the procedural arrangements made between the ACO and the head of the audit office, the contents of the TAR, and the special considerations identified in the request for audit evaluation and submission of the Audit Advisory Report (AAR).

3.8.6.2 Audit Advisory Reports (AARs)

On completion of the audit evaluation, the auditor will prepare the AAR in accordance with the directives under which the auditor operates and the procedural arrangements made with the ACO, and submit the report to the negotiator.

The AAR should incorporate the findings of the TAR, when provided, and should address any additional items requested by the ACO or ACO representative. The ACO or ACO

representative may request that a discussion of the audit findings be held prior to the release of the formal audit report.

3.8.6.3 Field Pricing Assistance

Field pricing assistance (FAR 15.404-2) is a review and evaluation of the contractor's or subcontractor's proposal by any or all field pricing support personnel. This may include DCAA audit support or any other type of pricing support. The Contracting Officer should request field pricing assistance when the information available at the buying activity is inadequate to determine a fair and reasonable price. The Contracting Officer must tailor the type of information and level of detail requested in accordance with the specialized resources available at the buying activity and the magnitude and complexity of the required analysis.

Field pricing assistance is generally available to provide technical, audit, and special reports associated with the cost elements of a proposal, including subcontracts; information on related pricing practices and history; information to help contracting officers determine commerciality and price reasonableness; and identifying general market conditions affecting determinations of commerciality and price reasonableness.

In accordance with PGI 215.4.4-2, the Contracting Officer should consider requesting field pricing assistance for:

- fixed-price proposals exceeding the cost or pricing data threshold
- cost-type proposals exceeding the cost or pricing data threshold from offerors with significant estimating system deficiencies (see DFARS 215.407-5-70(a)(4) and (c)(2)(i))
- cost-type proposals exceeding $10 million from offerors without significant estimating system deficiencies

3.8.6.3.1 Cost Realism Analysis

Cost Realism Analysis (FAR 2.101) is the process for independently reviewing and evaluating specific elements of each offeror’s proposed cost estimate to determine whether the estimated proposed cost elements:

- are realistic for the work to be performed
- reflect a clear understanding of contract requirements
- are consistent with the unique methods of performances and materials described in the offeror’s technical proposal

Even when adequate price competition exists, cost realism analysis may be appropriate, especially for cost-reimbursement contracts, to ensure a reasonable expectation that proposed costs are consistent with the technical proposal. Cost realism analysis should also

be used when the solicitation contains new requirements that may not be fully understood by competing contractors, when there are quality concerns, or when past experience has indicated that contractors have proposed costs which have resulted in quality or service shortfalls.

For more detailed information regarding Cost Realism Analysis, refer to the DoD Contract Pricing Reference Guides, Volume 4, Chapter 8.

3.8.7 Reaching Work Scope Understanding

This section provides an overview of work scope understandings and discusses work scope conferences and data.

3.8.7.1 General

It is unusual for a SUPSHIP to have to reach a work scope understanding with the contractor, as the term is used in this chapter, for a contract itself. Such understandings are usually reached in pre-bid/negotiation conferences or other discussions; therefore, work scope understandings are addressed in the context of contract changes.

Before a contractor can prepare an estimate of the cost of a change, it first must determine the work scope of the change. There should be an understanding between the contractor and the negotiating team on the work scope before the change is adjudicated. If there is no common basis of understanding the requirements of the change, there cannot be a common basis for adjudication. Reaching an early understanding of work scope prevents later conflicts and permits the negotiating team to limit the evaluation of the contractor's proposal to the estimated cost of performance. For unpriced modifications, a work scope understanding should be reached with the contractor before issuing the unpriced modifications. Such work scope understandings do not modify the content of the modification.

Work scope understandings will be reached before completion of the technical analysis. These understandings may be accomplished by any reasonable means including work scope conferences. The difficulty in reaching work scope understandings and the need and timing for holding work scope conferences is directly related to the clarity and accuracy of the applicable specifications. When the specifications are clear and accurate, a work scope conference may not be needed, especially if the contractor's proposal raises no serious technical questions. On the other hand, a work scope conference will generally be needed if the specifications are not clear and accurate, or if the contractor's proposal raises serious technical questions. For the former, the conference should be held before proposal submission. For the latter, the conference should be held after receipt of the proposal. When there are serious disagreements about the work scope, a work scope conference should be held, preferably before receiving the proposal. The ACO will establish local procedures for reaching work scope understandings with the contractor, including the use of work scope conferences.

When a work scope understanding is reached before proposal submission, the proposal for pricing the change is to be submitted in accordance with the understanding. The contractor's proposal will be submitted based on the work scope understanding reached. Thus, the technical analyst reviewing the work scope description prepared by the contractor or attending the work scope conference should conduct, if possible, the technical evaluation of the proposal when it is received.

3.8.7.2 Work Scope Conference

The extent of participation by the Government and contractor representatives at work scope conferences will be determined based on type and complexity of work, issues for resolution, and gross dollar value. Participants should be limited to necessary personnel. A work scope will typically include a Project Office representative, the SUPSHIP negotiator, a technical analyst, and contractor representatives. Legal counsel, ACO, auditor, engineers, and other specialists should be included when deemed necessary.

3.8.7.2.1 Work Scope Data

As minimum, work scope data should include:

- description of the work required by the contract before the change
- work which is deleted by the change
- work deleted by the change which already has been completed

The description is to include a list of components, equipment, and other identifiable property. Also, the status of manufacture, procurement, or installation of such property is to be indicated. Personnel will furnish separate descriptions for design work and production work. Raw materials, purchase parts, components, and other identifiable hardware that the change makes expendable, and which the contractor will or will not retain, are to be listed for later disposition.

3.8.8 Profit/Fee

This section outlines policy and procedures for profit/fee determination.

3.8.8.1 General

Profit or fee pre-negotiation objectives represent that element of the potential total remuneration that contractors may receive for contract performance over and above allowable costs. This potential remuneration element and the Government's estimate of allowable costs to be incurred in contract performance equal the Government's total pre-negotiation objective. Even as actual costs may vary from estimated costs, the contractor's actual realized profit or fee may vary from negotiated profit or fee.

It is in the Government's interest to offer contractors opportunities for financial rewards sufficient to stimulate efficient contract performance, attract the best capabilities of qualified large and small business concerns to Government contracts, and maintain a viable industrial base.

3.8.8.2 Policy

FAR 15.404-4 requires DoD to use a structured approach for determining the profit or fee objective in those contractual actions that require cost analysis and authorize prescribing exemptions for situations in which mandatory use of a structured approach would be clearly inappropriate (e.g., cost-plus-award-fee contracts). The Weighted Guidelines Method described in DFAR 215.404.71 is DoD's structured approach for performing a profit analysis.

3.8.8.3 Procedures

Before contract price negotiation, the negotiator will develop a profit objective. When the contractor's proposal contains cost or pricing data by identification or submission, cost analysis must be used to analyze the proposal, and the profit objective must be established in accordance with DFARS 215.404.

Before the negotiation of the price adjustment for a contract modification, the negotiator will develop a profit objective. When price analysis (independent estimate) is employed, the profit objective is to be established in accordance with DFARS 215.404-4.

In assigning the risk factors covered in DFARS 215.404, the negotiator is to consider the contractor's proposal.

3.8.9 Negotiator’s Evaluation and Pre-Negotiation Position

3.8.9.1 General

Upon receipt of the contractor's proposal, the TAR, the AAR, and any other field pricing assistance, if obtained, the negotiator then has the basic documents needed for the evaluation and preparation of the pre-negotiation position.

As a minimum, the negotiator, in making an evaluation, will consider the following matters if applicable:

- Have all of the prior actions required by the above procedures been accomplished?
- Are the findings and recommendations contained in the TAR and AAR clear on which costs are questionable or unreasonable? Has the rationale been provided?
- Should the contractor be required to provide additional information to support questionable items before establishing the pre-negotiation position?

- Does the proposed price contain costs which are not considered allowable in the pricing of the change?
- If there is excess or obsolete material resulting from the change, has that material been properly identified and appraised? Has sufficient credit been given to the Government for material to be retained by the contractor? Has the Government property administrator been appropriately notified?
- Is the overtime and shift work included in the proposal acceptable?
- Has the proposal been prepared and evaluation made in accordance with the requirements of any economic adjustment clause included in the contract?
- Is the profit/fee fair and reasonable?

The negotiator will consider the extent of defective cost or pricing data identified by the TAR and AAR. After all questionable matters are resolved, the negotiator will establish a pre-negotiation position in writing and obtain approval, as required.

3.8.9.2 Proposal Updates

Most contractor proposals are only valid for a specific period of time. It is normally expected that negotiations would be completed prior to expiration of this time period; however, if not, it may be necessary to request an extension or an updated proposal from the contractor. If an updated proposal is submitted, it may also be necessary to obtain updated TARs and/or AARs.

3.8.9.3 Business Clearances

3.8.9.3.1 General

The purpose of a business clearance is to demonstrate that the proposed acquisition or contract change conforms to good business practice, law, or regulation, and to justify, by written evidence, that the cost and price established are fair and reasonable. In addition, a business clearance serves as the historical record of the business cost and pricing aspects of the acquisition or contract change and contains all required approvals by higher authority.

In accordance with NCH 15.406, a business clearance must be prepared for all contract actions and in all circumstances set forth in NMCAR 5201.690 and other individual actions specified by NAVSEA 02/02B. The Contracting Officer signing the contract action is responsible for ensuring the required business clearance approval has been obtained prior to award. SUPSHIPs are authorized to approve business clearances up to a threshold established by NAVSEA 02. Per NCH 15.406, each business clearance, together with supporting source documents, must clearly establish that:

- the negotiation objective or Government position is fair and reasonable in terms of both price and contract terms as well as conditions

- the contemplated business arrangement and the contract to be awarded are sound and in compliance with laws, regulations, and policies

The format and content of clearances may be tailored for local use when the approval authority is below the threshold set by NAVSEA 02. Those clearances above the threshold must follow format and content set by NAVSEA 02.

NMCARS 5201.690 requires that for all procurement actions subject to business clearance requirements, the Head of Contracting Activity (HCA) must establish business clearance approval levels that are at least one level above the individual responsible for conducting the negotiations or, if negotiations are not required, for handling the proposed actions.

3.8.10 Special Areas

This section outlines some special areas regarding the administrative process for issuing and negotiating changes.

3.8.10.1 Packaged Negotiations

The negotiation of a number of changes as a package under a single contract and the use of single supplemental agreement for the package is a technique to be used under either of the following circumstances:

- when a group of fixed-price changes are related in such a way that establishing a separate work scope for each one would be impractical

- when the ACO decides that combining and adjudicating a group of changes after independent estimating has been performed would be advantageous

The type and level of business clearance approval will be determined by the gross value of the total package being adjudicated instead of the value of the individual changes in the package. If the gross value of a package of changes evaluated on the basis of independent estimates equals a price increase or decrease in excess of the cost or pricing data threshold, FAR 15.403 requires that certified cost or pricing data be obtained from the contractors.

When, for administrative convenience, the ACO includes more than one separately negotiated and priced change in a single supplemental agreement with the equitable adjustment shown for each change, such a procedure is not package adjudication. Further, if none of the changes have an adjudicated price in excess of the cost or pricing data threshold, the mandatory requirements of Public Law 87-653 regarding cost or pricing data do not apply.

3.8.10.2 Periods of Performance (POP)

SUPSHIPs should monitor scheduling, reporting, and recording of realistic periods of performance required to complete a contract change. SUPSHIPs should ensure the completion of actions as scheduled. If meeting a POP is not feasible for any reason, the

negotiator should establish a new, realistic date through coordination with the Project Office and negotiation with the contractor.

3.8.10.3 Coordination and Relationship with DCAA

The ACO will establish a close working arrangement with the cognizant DCAA office. Periodic meetings should be held to discuss the audit assistance and general accounting to be rendered. A general understanding should be reached covering pricing actions expected to require specific advisory reports and advisory reports for general use.

The content of advisory reports to be submitted by the auditors is very important and should be considered carefully. A properly prepared report will be an invaluable tool to the negotiator during discussions with the contractor. SUPSHIP should contact NAVSEA 02 if they encounter unresolved difficulties regarding any aspect of DCAA assistance.

3.8.10.4 Notification of Contract Changes

When a contractor considers that the Government has affected or may affect a change in the contract that has not been identified as such in writing and signed by the Contracting Officer, it is necessary that the contractor notify the Government in writing as soon as possible. This will permit the Government to evaluate the alleged change and perform the following:

- confirm that it is a change, direct the mode of further performance, and plan for its funding
- countermand the alleged change
- notify the contractor that no change is considered to have occurred
- request more information

The clause at FAR 52.243-7, Notification of Changes, which is prescribed in FAR 43.107, basically:

- incorporates the policy expressed above
- requires the contractor to notify the Government promptly of any Government conduct that the contractor considers a change to the contract
- specifies the responsibilities of the contractor and the Government with respect to such notifications

3.8.10.5 Funding

The Contracting Officer will not execute a contract modification that causes or will cause an increase in funds without having first obtained a certification of funds availability. The exception is for modifications to contracts that:

- are conditioned on availability of funds (see FAR 32.703-2)
- contain a limitation of cost or funds clause (see FAR 32.704)

The certification will be based on the negotiated price, except that modifications executed before agreement on price may be based on the best available estimate of cost.

3.8.10.6 Notification of Substantial Impact on Employment

The Office of the Assistant Secretary of Defense (Public Affairs) is required to be notified of any contract award or modification of a defense contract that exceeds $5.5 million (DFARS 205.303). Additionally, DFARS Clause 252.249-7002 imposes notification requirements on the contractor for any subcontract termination or reduction that exceeds $550,000.

3.8.10.7 Identification of Foreign Material Sales (FMS) Contract Modifications

Each Foreign Material Sales (FMS) modification must be identified by clearly stamping or otherwise indicating “FMS Requirement” on the face of the modification. It also must specify within the modification each FMS case identifier code by line or sub-line item number (e.g., FMS Case Identifier GY-D-DCA).

3.8.10.8 Change Orders

The following sections discuss change orders.

3.8.10.8.1 General

In general, Government contracts contain a “Changes” clause that permits the Contracting Officer to make unilateral changes, in designated areas, within the general scope of the contract. These are accomplished by issuing written change orders on an SF 30, Amendment of Solicitation/Modification of Contract (SF 30), unless otherwise provided. The contractor must continue performance of the contract as changed, except that in cost-reimbursement or incrementally funded contracts the contractor is not obligated to continue performance or to incur costs beyond the limits established in the “Limitation of Cost or Limitation of Funds” clause.

3.8.10.8.2 Authority to Issue Change Orders

Change orders are issued by the ACO unless the PCO retains the contract for administration. This authority has been delegated by COMNAVSEA to Supervisors of Shipbuilding, Conversion and Repair, USN, for job orders issued under Master Ship Repair Agreements (MSRAs) or Agreements for Boat Repairs (ABRs).

3.8.10.8.3 Change Order Accounting Procedures

Contractors’ accounting systems are seldom designed to facilitate the segregation of the costs of performing changed work. Therefore, before prospective contractors submit offers,

the Contracting Officer should advise the contractors of the possible need to revise their accounting procedures to comply with the cost segregation requirements of the Change Order Accounting clause at FAR 52.243-6. The following categories of direct costs can normally be made segregable and accountable under the terms of the "Change Order Accounting" clause:

- nonrecurring costs (e.g., engineering costs and costs of obsolete or re-performed work)
- costs of added distinct work caused by the change order (e.g., new subcontract work, new prototypes, or new retrofit or backfit kits)
- costs of recurring work (e.g., labor and material costs)

3.8.10.8.4 Administration

The following sections discuss administrative concerns.

3.8.10.8.4.1 Change Order Documentation

If an equitable adjustment in contract price cannot be agreed in advance of a prospective change, then two documents are required: the change order and a supplemental agreement reflecting the resulting equitable adjustment in contract terms. If an equitable adjustment in the contract price or delivery terms or both can be agreed upon in advance, only a supplemental agreement need be issued. However, administrative changes and changes issued according to a clause giving the Government a unilateral right to make a change (e.g., an "Option" clause) initially require only one document.

In situations where an unpriced or undefinitized change is issued, the change must generally be sufficiently definitive so that the contractor is obligated to total performance within a stated period of time for a maximum not-to-exceed price that the Government can be charged under the change order. Exceeding this price is not an item subject to negotiation with the Government. This maximum not-to-exceed price must bear a reasonable relationship to the work to be performed. All such unpriced or undefinitized changes are to contain definitization schedules which provide for definitization by the earlier of two periods of time. The first is the end of a 180-day period beginning on the date of issuance of the change. (This period may be extended, as required, but may not exceed the 180-day period beginning on the date the contractor submits a qualifying proposal.) The second is the date on which the amount of funds expended under the change order is equal to more than 50 percent of the maximum not-to-exceed price.

3.8.10.8.4.2 Definitization

Contracting officers are to negotiate equitable adjustments resulting from change orders in the shortest practicable time.

The ACO must review change orders issued by the Contracting Officer to ensure compatibility with the status of performance. If the contractor has progressed beyond the effective point specified in the change orders, the ACO must determine the earliest practicable point at which the change order could be made effective and so advise the Contracting Officer. The Contracting Officer must issue another change order to correct, revise, or reference the first change order, and then definitize by supplemental agreement, citing both change orders.

ACOs are to establish suspense systems adequate to ensure accurate identification and prompt definitization of unpriced change orders.

The Contracting Officer will ensure that a cost analysis is made if required under FAR 15.404-1, and will consider the contractor's costs that can be segregable for the change, if available. If additional funds are required as a result of the change, the Contracting Officer will secure the funds before making any adjustment to the contract.

When the Contracting Officer requires a field pricing review of requests for equitable adjustments, the Contracting Officer is to provide a list of any significant contract events which may aid in the analysis of the request. This list should include:

- date and dollar amount of contract award and/or modification
- date of submission of initial contract proposal and dollar amount
- dates of alleged delays or disruptions
- performance dates as scheduled at date of award and/or modification
- actual performance dates
- date that entitlement to an equitable adjustment was determined or Contracting Officer's decision was rendered, if applicable
- date of certification of the request for adjustment, if certification is required
- dates of any pertinent Government actions or other key events during contract performance that may have an impact on the contractor's request for equitable adjustment

3.8.10.8.4.3 Complete and Final Equitable Adjustment

To avoid subsequent controversies that may result from a supplemental agreement containing an equitable adjustment as the result of a change order, the Contracting Officer should:

- ensure that all elements of the equitable adjustment have been presented and resolved

- Include in the supplemental agreement, a release similar to the following

"CONTRACTOR'S STATEMENT OF RELEASE"

"In consideration of the modification(s) agreed to herein as complete equitable adjustments for the contractor's _____ (describe) _____ proposal(s) for adjustment; the contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments attributable to such facts or circumstances giving rise to the proposal(s) for adjustment (except for) _____)."

3.8.10.8.4.4 Consideration as Command Key Indicator

Heads of Contracting Activities (HCAs) are to consider the backlog and age of undefinitized change orders as a command key indicator, placing routine management emphasis on undefinitized change orders.

3.9 Policy for Overtime and Multi-Shift Work

FAR Part 22, DFARS, Part 222, and the NCH Part 22, prescribe contracting policy and procedures for implementing pertinent labor laws and associated contract clauses. Contractors shall perform all contracts so far as practicable without using overtime, particularly as a regular employment practice, except when lower overall costs to the Government will result or when it is necessary to meet urgent program needs. Any approved overtime, extra-pay shifts, and multi-shifts should be scheduled to achieve these objectives.

Approval of the overtime may be granted after determining in writing that overtime is necessary to:

- meet essential delivery or performance schedules
- make up for delays beyond the control and without the fault or negligence of the contractor
- eliminate foreseeable extended production bottlenecks that cannot be eliminated in any other way

Refer to FAR 22.103-4, DFARS 222.103-4, and NCH 22-103.4 for additional information regarding approvals.

3.9.1 Overtime and Multi-Shift Premiums for Fixed-Price Contract Considerations

DoD overtime and multi-shift premium regulations have been established to limit the amount of premium overtime and shift compensation that the Government may allow or consider in pricing. Overtime or shift premiums may not be authorized at Government expense when the contractor is already obligated to meet the required delivery dates without the right to

additional compensation. Thus, a contractor performing under a fixed-price contract generally is not entitled, under the overtime regulations, to obtain any compensation for overtime or shift pay in addition to the original contract price. In accordance with NCH 22.103-4, for vessel new construction, only NAVSEA 02/02B has authority to approve overtime work to obtain delivery of the vessel prior to the delivery date.

3.9.2 Overtime and Multi-Shift Premiums for Cost-Reimbursable and Letter Contract

Cost-reimbursable and letter contracts require Government approval of contractor overtime and multi-shift premium payments. This contractual control is necessary since the premium payments, like other costs, are subject to audit and reimbursement. The contract provisions may require that all overtime and multi-shift premiums be approved by the contracting officer or the duly authorized representative. The terms of individual contracts must be examined to ascertain exact requirements and the applicability of the requirements to overtime and multi-shift premium work by subcontractors.

In accordance with NCH 22.103-4, NAVSEA 022 will normally determine and approve overtime and multi-shift premiums for new construction contracts, but may grant this authority to the ACO. These determinations and approvals are made prior to the time that the premium costs are incurred, but may be made retroactively if justified by circumstances. NAVSEA 022 may also authorize the ACO to make determinations and approve overtime. When forwarding any contractor request for overtime or multi-shift premium approvals to NAVSEA, SUPSHIP should ensure that all information necessary to make a determination is included, should comment on the accuracy of the facts in the contractor's request, and should advise whether or not the request should be approved. The DCAA office should be requested to provide advice to SUPSHIP with respect to the contractor's request.

For changes under cost-reimbursement contracts requiring overtime, the amount of overtime is limited to the ceiling established by NAVSEA for the contract. Any increase in ceiling required because of the change must be authorized by NAVSEA.

3.10 Warranties

3.10.1 General

The use of a warranty in an acquisition is no longer mandatory and shall be approved in accordance with agency procedures as stated in FAR Part 46.703 and DFARS Part 246.704. The Procuring Contracting Officer will determine if the use of a warranty clause(s) should be used in a contract. The principal purposes for having a warranty in a Government contract are to:

- delineate the rights and obligations of the contractor and the Government for defective items and services
- foster quality performance

When a warranty is included in the contract, it should specify:

- a contractual right for the correction of defects notwithstanding any other requirement of the contract pertaining to acceptance of the supplies or services by the Government; and
- a stated period of time or use, or the occurrence of a specified event, after acceptance by the Government to assert a contractual right for the correction of defects.

The benefits to be derived from a warranty must be commensurate with the cost of the warranty to the Government.

3.10.2 Criteria for the Use of Warranties

In determining whether a warranty is appropriate for a specific acquisition, the following general factors shall be considered:

- Nature and use of the supplies or services
- Potential cost that the contractor will charge based on risk
- Government's cost for administration and enforcement. (Cost is driven by the existence of an adequate administrative system for reporting defects or whether one must be established.)
- Trade practice
- Reduced requirements
- Type of contract

3.10.3 Limitations on Use of Warranties

The following must be considered as stated in FAR 46.706:

a. Warranties will not be included in cost-reimbursement contracts unless authorized in accordance with agency regulations or as required by FAR 52.246-3 and 52.246-8.

b. Warranty clauses shall not limit the Government's rights under an inspection clause in relation to latent defects, fraud, or gross mistakes that amount to fraud.

c. Except for warranty clauses in construction contracts, warranty clauses shall provide that the warranty applies notwithstanding inspection and acceptance or other clauses or terms of the contract.

3.10.4 Warranty Terms and Conditions

When a warranty is to be included in an acquisition, the contracting officer shall ensure that the clause(s) clearly state the:

a. Exact nature of the item and its components and characteristics that the contractor warrants;

b. Extent of the contractor's warranty including all of the contractor's obligations to the Government for breach of warranty;

c. Specific remedies available to the Government; and

d. Scope and duration of the warranty.

FAR 46.706 through 46.709 provide specific guidelines that the contracting officer shall consider to facilitate pricing and enforcement when preparing warranty terms and conditions.

3.10.5 Contract Clauses for Warranties

The clauses and alternates prescribed in FAR 46.710, FAR 52.246, DFARS 246.710 and NAVSEA developed clauses for specific acquisitions may be used in solicitations and contracts in which inclusion of a warranty is appropriate. However, because of the many situations that may influence the warranty terms and conditions appropriate to a particular acquisition, the procuring contracting officer may vary the terms and conditions of the clauses and alternates to the extent necessary.

3.10.6 General Definitions in Warranties

"At no additional cost to the United States" means at no increase in price for firm-fixed-price contracts, in target or ceiling price for fixed-price-incentive contracts, or in estimated cost or fee for cost-reimbursement contracts. If a fixed-price-incentive contract contains a warranty, the estimated cost of the warranty to the contractor should be considered in establishing the incentive target price and the ceiling price of the contract. All costs incurred or estimated to be incurred by the contractor in complying with the warranty will be considered when establishing the total final price. Contractor compliance with the warranty after the establishment of the total final price will be at no additional cost to the Government.

"Design and manufacturing requirements" means structural and engineering plans and manufacturing specifications, including precise measurements, tolerances, materials, and finished product tests for the weapon system.

"Essential performance requirements" mean the operating capabilities and maintenance and reliability characteristics of a weapon system determined by the SECDEF (or delegated authority) to be necessary for the system to fulfill the military requirements for which it is designed.

"Initial production quantity" is the number of units of a weapon system contracted for in the first program year of full-scale production. Mature full-scale production is the follow-on production of a weapon system after manufacture of the lesser of the initial production quantity or one-tenth of the eventual total production quantity.

“The prime contractor” is a party who enters into an agreement directly with the United States to furnish a weapons system or a major subsystem.

“Weapon system” means a system or major subsystem used directly by the armed forces to carry out combat missions including, but not limited to: naval vessels; strategic and tactical missiles including launching systems; guided munitions; military surveillance, command, control, and communication systems; mines; torpedoes; fire control systems; propulsion systems; electronic warfare systems; and safety and survival systems.

“Acceptance,” including the execution of an official document (e.g., DD Form 250, Material Inspection and Receiving Report), must be made by an authorized representative of the Government.

“Defect” refers to any condition or characteristic in any supply or service furnished by the contractor under the contract that is not in compliance with the requirements of the contract.

Contracts which the SUPSHIP administers may be in effect which include less stringent warranty or guaranty clauses. Particular attention, however, should be given to FAR 46.7 and NAVSEA developed clauses which are tailored to a particular acquisition.

3.10.7 Applicability to Foreign Military Sales (FMS)

Special care must be exercised to ensure that the FMS purchaser will bear all of the acquisition and administration costs of any warranties obtained. The warranty requirements of FAR 46.7 are not mandatory for FMS production contracts. NAVSEA typically obtains for FMS purchasers the same warranties against defects in workmanship and material and conformance to design and manufacturing requirements as obtained by the United States Government for similar purposes. NAVSEA will not normally obtain essential performance warranties for FMS purchasers. The FMS purchaser will be advised of the warranties normally obtained by the United States Government. If the FMS purchaser requests a warranty in the LOA, the United States Government will obtain the same warranties on conformance to design and manufacturing requirements and against defects in material and workmanship that are obtained for U.S. supplies. If the FMS purchaser expressly requests a performance warranty, the United States Government will exert its best efforts to obtain the same warranty obtained on U.S. equipment or, if specifically requested by the FMS purchaser, a unique warranty. The costs for warranties for FMS purchasers may be different than the costs for such warranties for the United States due to factors such as overseas transportation and any tailoring to reflect the unique aspects of the FMS purchaser. An approved “direct sale” to a foreign government by the contractor is NOT administered by the Supervisor of Shipbuilding.

3.10.8 Cost-Benefit Analysis

NAVSEA policy requires obtaining warranties only when the warranties are cost-effective. If a contracting officer considers a warranty not cost-effective, a waiver request will be initiated. To determine whether a warranty would be cost-effective, an analysis must be performed in which the benefits from the warranty are compared with the warranty's acquisition and administration costs. The analysis should examine a weapon system's life cycle costs, both with and without a warranty. When possible, a comparison of the cost of obtaining and the cost of enforcing similar warranties on similar systems should be made. The analysis should be documented in the contract file.

3.11 Guarantee and Acceptance

3.11.1 General

Subject to the limitation of liability set forth in the contract, the contractor is responsible for any defects or other failures of the ship to meet contract requirements discovered during the guarantee period.

3.11.2 Guarantee Period

The guarantee period is to be specified in the contract. This period, however, is subject to extension for any length of time that NAVSEA determines the ship is not available for unrestricted service because of defects for which the contractor is responsible. The term “not available for unrestricted service” is contractual, and should be distinguished from the terms “acceptance for restricted service” and “acceptance for unrestricted service” which are used in connection with AT. Basically, the term “not available for unrestricted service” means that the ship is incapable of fulfilling its mission because of deficiencies that substantially reduce material readiness, that may cause the ship to be unseaworthy, or that may cause serious or fatal injuries to personnel or serious damage to the ship or installed equipment. Specifically, a ship is “not available for unrestricted service” when the ship is out of operation for repairs or corrections during the guarantee period. A ship also may be considered “unavailable for unrestricted service” although the ship may be able to operate in a disabled condition (e.g., it is unable to develop full power or fire missiles effectively).

NAVSEA determines whether the ship is not available for unrestricted service as a result of defects for which the contractor is responsible or for other causes. If NAVSEA considers the contractor to be responsible, the contractor is notified through the SUPSHIP that the running of the guarantee period is suspended. At the end of the period of suspension, NAVSEA again notifies the contractor of the date to which the guarantee period has been extended. Defects known at the time of delivery of the ship are not guarantee defects and are not subject to the contract's liability ceiling.

3.11.3 Surface Ship and Submarine Deployment during the Guarantee Period

After delivery or redelivery, control and operation of a ship or submarine are the sole responsibilities of the Navy. During the guarantee period, tests and trials are normally conducted to ready the ship or submarine for fulfillment of its Navy mission and for acceptance as part of the operating forces.

Final Contract Trials (FCT) are conducted by the Navy before expiration of the contract guarantee period. These trials are witnessed by INSURV and are the same in scope as AT, except that these trials are run entirely by Navy personnel. When practical, the contractor will be invited to send representatives to the trials. Representatives of SUPSHIP may also attend to outline the status of contractor-responsible work items and to aid NAVSEA and the trial board as requested.

The contract guarantee period may expire in accordance with the contract terms regardless of whether final contract trials, shakedown, and the other operations described above are actually held by the Navy within the guarantee period. In this sense, the contractor has no contractual concern with the operations conducted by the Navy during the guarantee period. To the Navy, however, that final contract trials be scheduled for completion before the expiration of the guarantee period is more economical, since, if the trials are not held, material inspections must be made to tabulate all contractor-responsible deficiencies.

3.11.4 Contractor Responsibility under the Guarantee Provisions

The guarantee provisions of the contract cover defects and deficiencies that develop and are discovered during the guarantee period, even though notice is not actually given to the contractor until after the guarantee period has expired. As discussed in SOM 10.6.8, NAVSEA procedures are designed to provide prompt notices to the contractor. In practice, several weeks may elapse after the end of the guarantee period before the contractor is finally notified of all defects because of the time required by the trial board to prepare and submit its Final Contract Trials Report, and because the trials may not be completed until immediately before the end of the guarantee period. Since the contractor's representatives may be onboard during the trials, however, the contractor may have preliminary information regarding all defects for which the contractor is considered responsible. Contract provisions may require or permit a contractor Guarantee Engineer aboard the ship during the guarantee period. This contract provision will tend to help resolve problems and to determine responsibility for correction of deficiencies. The SUPSHIP will provide necessary written guidance to the ship on dealing with this engineer and the engineer's work involved in correction of deficiencies.

The contract customarily sets forth a limitation on the contractor's liability for defects arising during the guarantee period. The amount of the limitation is established at award of the contract. In general, in a multi-ship procurement, the limit applies to all ships under the contract as a group; in other words, the limit is on a total contract basis and is not prorated for each ship. In addition, the limit applies only to defects arising during the guarantee

period. Any contractor-responsible defects that are known before delivery (noted as work items before delivery) are outside the limitation of liability, even if the defects are not corrected or decrease cost changes for the defects are not issued before delivery.

The Navy may elect to have the contractor correct or replace the defects for which the contractor is responsible under the guarantee provisions or to perform the work itself. This discretionary authority is necessary because the availability of the ship after acceptance depends on deployment and operational considerations. When practical, however, in accordance with the terms of the contract, the contractor will be given an opportunity to examine defective items before the Government replaces or corrects the items. The Navy activity performing or supervising performance of the work will obtain prior clearance from SUPSHIP so that the contractor may send representatives to the worksite.

3.11.5 Guarantee under Fixed Price Contracts

The contractor is responsible for correcting contractor defects under fixed price contracts. If the Navy decides not to have the contractor perform the work, an equitable reduction in contract price is made by an appropriate contract modification. Under contracts for which the SUPSHIP has the authority, SUPSHIP issues and adjudicates field changes covering the non-correction of contractor-responsible defects arising before and during the guarantee period. See section 3.11.5 below regarding guarantees in cost-reimbursement contracts.

For contractor-responsible items which were not corrected by the contractor, contract modifications should be issued promptly and clearly specify defects or deficiencies. SUPSHIP will use cost data for the adjudication of the contract price reduction. During the guarantee period, SUPSHIP should obtain from the Navy fitting out activity (or NAVSEA) a copy of the report of the ship's departure from the fitting out activity (conventional-powered ships only). This report contains a record (including cost data) of all work performed or material supplied by the fitting out activity to complete or correct contractor-responsible work items. After post shakedown availability of the ship, SUPSHIP maintains close liaison with the CO, NAVSEA, and the contractor on the accomplishment of contractor-responsible work. Until final settlement of the contract, SUPSHIP should also maintain a complete list of unaccomplished contractor-responsible work items, showing the current status of each item.

3.11.6 Guarantee under Cost-Reimbursement Contracts

As with fixed-price contracts, ships under cost-reimbursement type contracts are accepted preliminarily on delivery. These contracts provide for a period of guarantee as specified in the contract which is subject to extension for any time that the ship is not available for unrestricted service because of contractor-responsible defects. During the guarantee period, the Government may require the contractor to correct or replace any defects or nonconformance that existed at delivery. The costs of such work are reimbursable without fee to the contractor under the applicable contract cost principles; the contract limit of costs provision also applies. The Government, however, may require the contractor to correct or replace at the contractor's expense, defects or failures that arise because of fraud, lack of

good faith, or willful misconduct on the part of the contractor's directors, officers, or other managerial personnel, as defined in the clause.

3.11.7 Guarantee for Ships to be Transferred to Foreign Governments

The usual guarantee provisions described above are included in contracts for ships that are expected to be transferred by the Navy to foreign Governments. Because of the difficulties inherent in administering these provisions after the ship has been transferred, NAVSEA typically considers deleting the guarantee requirements on the departure of the ship from the United States before the expiration of the normal contract guarantee period. If NAVSEA decides that the guarantee requirements should be eliminated, an equitable downward adjustment in the contract price will be negotiated with the contractor to cover the deletion of the remaining guarantee requirements and the contract modified accordingly.

3.11.8 Guarantee Provisions in Boat (Supply Type) Contracts

The Guarantee clause of boat contracts that contain the standard supply form of General Provisions (SF 32) provides for a warranty period of two years after delivery and acceptance or for a period of six months of operation after installation in the operational configuration and site.

Under the clause, the contractor guarantees that at delivery the boats are free from any defects in material or workmanship and conform to the requirements of the contract. The clause also provides that the contractor will be given notice of any defects and permits the Government to require correction or replacement of the deficiencies, or a price reduction, by further notice to the contractor within a reasonable time after Government notice of the defect. When the contractor replaces or corrects a defect or a nonconformance, the guarantee continues with respect to the new work for a period equal to full contract guarantee period, unless a different period of guarantee is specified in the schedule.

3.11.9 Notification by SUPSHIP of Guarantee Provisions

To ensure the full protection of the Government's interests under the guarantee provisions of contracts, SUPSHIP will furnish to the PCO or the Officer in Charge of the ship at the time of its delivery (with a copy to the appropriate Fleet Commander and TYCOM) written notification containing the information listed below (in the case of boats and service craft, SUPSHIP gives the notification to the receiving command or stocking activity):

a. the date of the end of the guarantee period

b. quoted excerpts of all applicable contract clauses pertaining to the contractor's responsibility under the guarantee provisions

c. a notice that any malfunction, failure, or casualty occurring in the ship or boat during the guarantee period, including any equipment deficiencies, should be reported promptly to NAVSEA and a copy of the report should be furnished to SUPSHIP (in the case of

commissioned ships, reports should be forwarded to NAVSEA via SUPSHIP; however, an advance copy should be sent to NAVSEA)

d. a notice that a list of unsatisfactory items including defects described in the preceding section should be forwarded in sufficient time to reach SUPSHIP and NAVSEA no less than 15 days before the expiration of the guarantee period (if any additional items are documented after the submission of this list and before the expiration of the guarantee period, a supplementary list will be immediately forwarded to the same activities); and

e. a notice that during the final contract trial, the trial board should be provided with a complete list of known deficiencies to be included in its report

Before expiration of the guarantee period, SUPSHIP will communicate with the vessel, Fleet Commander, and NAVSEA requesting that SUPSHIP be advised of any guarantee defects for which the contractor is considered responsible.

3.11.10 Notices to the Contractor

a. If returning the ship to the contractor is considered practical and feasible, the notice to the contractor will advise the contractor of:

   (1) The nature of the defects and deficiencies deemed to be the contractor's responsibility;

   (2) The reason why the contractor is responsible, including references to the applicable job order, specification work item, and work item requirements; and

   (3) The place and date the ship will be available for the contractor to inspect the defects and deficiencies involved and the arrangements made for the contractor's inspection.

b. If returning the ship to the contractor is considered impractical or undesirable, the notice to the contractor will advise the contractor of:

   (1) Nature of the defects and deficiencies deemed to be the contractor's responsibility;

   (2) Reason why the contractor is responsible, including references to the applicable job order, specification work item, and work item requirements;

   (3) Explanation why returning the ship to the contractor for repairs is impractical or undesirable; and

   (4) Place and date the ship will be available for the contractor's inspection of the defects and deficiencies involved and the arrangements made for the contractor's inspection.

3.12 Subcontracts

3.12.1 Introduction

This section discusses policies and procedures for consent to subcontract and for review, evaluation, and approval of contractor's purchasing systems. Subcontracting policies and procedures addressed herein are based upon FAR Part 44, DFARS Part 244, and NCH Part 44.

Contractors generally attempt to award at least the major subcontracts shortly after receiving award of the prime contract. For this reason, SUPSHIPs should expect and be prepared to provide prompt service in order to avoid delaying the contractor.

Subcontract consent is not the sole responsibility of the Contracts Department. Other SUPSHIP departments, as appropriate, should be involved to ensure that all pertinent aspects for which they are responsible are adequately covered in subcontracts. All SUPSHIP departments involved in subcontract consent will develop and use checklists to assist in their reviews.

3.12.2 Definitions

"Approved purchasing system" refers to a contractor's purchasing system that has been reviewed and approved in accordance with FAR 44.3.

"Consent to subcontract" refers to the Contracting Officer's written consent for the prime contractor to enter into a particular subcontract.

"Contractor" refers to the total contractor organization or a separate entity of the organization, such as an affiliate, division, or plant that performs its own purchasing.

"Contractor Purchasing System Review (CPSR)" refers to the complete evaluation of a contractor's purchasing of material and services, subcontracting, and subcontract management from development of the requirement through completion of subcontract performance.

"Subcontract," as used in this section, refers to any contract as defined in FAR 2.101 and entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract. A subcontract includes, but is not limited to, purchase orders and changes and modifications to purchase orders.

"Subcontract" as used in this section could also indicate (as defined in FAR 12.001), but not be limited to, a transfer of commercial items between divisions, subsidiaries, or affiliates of a contractor or subcontractor.

"Subcontractor" refers to any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a prime contractor or another subcontractor.

3.12.3 Consent Requirements

If the contractor has an approved purchasing system, consent is required for subcontracts specifically identified by the Contracting Officer in the subcontracts clause of the contract. The Contracting Officer may require consent to subcontract if the Contracting Officer has determined that an individual consent action is required to protect the Government adequately because of the subcontract type, complexity, or value, or because the subcontract needs special surveillance. These can be subcontracts for critical systems, subsystems, components, or services. Subcontracts may be identified by subcontract number or by class of items (e.g., subcontracts for engines on a prime contract for airframes).

If the contractor does not have an approved purchasing system, consent to subcontract is required for cost-reimbursement, time-and-materials, labor-hour, or letter contracts, and also for unpriced actions (including unpriced modifications and unpriced delivery orders) under fixed-price contracts that exceed the simplified acquisition threshold for: (1) cost-reimbursement, time-and materials, or labor-hour subcontracts; and (2) for Department of Defense, fixed-price subcontracts that exceed the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the contract (see FAR 52.244-2).

The Contracting Officer's written authorization for the contractor to purchase from Government sources (see FAR Part 51) constitutes consent.

Refer to the specific contract clauses actually included in each contract to ascertain specific subcontract consent requirements.

3.12.3.1 Advance Notification Requirements

Under cost-reimbursement contracts, even if the contractor has an approved purchasing system and consent to subcontract is not required under FAR 44.201-1, the contractor is required by statute (10 U.S.C. 2306) to notify the agency before the award of:

- any cost-plus-fixed-fee subcontract
- any fixed-price subcontract that exceeds the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the contract applicable to the Department of Defense

3.12.3.2 Contract Clauses

FAR 52-244-5 requires that: (1) the Contractor shall select subcontractors (including suppliers) on a competitive basis to the maximum practical extent consistent with the objectives and requirements of the contract; and (2) if the Contractor is an approved mentor under the Department of Defense Mentor-Protégé Program, the Contractor may award subcontracts under this contract on a non-competitive basis to its protégés.

The Contracting Officer shall insert the clause at FAR 52.244-6, Subcontracts for Commercial Items, in solicitations and contracts for other than commercial items. FAR 52.244-6 requires to the maximum extent practicable, the Contractor and its subcontractors at all tiers to incorporate commercial items or non-developmental items as components of items to be supplied under the contract. Notwithstanding any other clause in the prime contract, only those clauses identified in the clause at FAR 52.244-6 are required to be in subcontracts. Agencies may supplement the clause at FAR 52.244-6 only as necessary to reflect agency unique statutes applicable to the acquisition of commercial items.

3.12.4 Subcontract Evaluation Responsibilities and Procedures

Subcontract evaluation responsibilities, considerations and consent limitations are identified in FAR 44.202 and 44.203, DFARS 244.202-2, and NCH 44.2. Much of what is included below is discussed in these particular authorities.

3.12.4.1 Responsibilities

The cognizant Administrative Contracting Officer (ACO) is responsible for consent to subcontracts, except when the Contracting Officer retains the contract for administration or withholds the consent responsibility from delegation to the ACO. In such cases, the contract administration office should assist the contracting office in its evaluation as requested.

The Contracting Officer responsible for consent shall review the contractor's notification and supporting data to ensure that the proposed subcontract is appropriate for the risks involved and consistent with current policy and sound business judgment.

Designation of specific subcontractors during contract negotiations does not in itself satisfy the requirements for advance notification or consent pursuant to the clause at 52.244-2. However, if, in the opinion of the Contracting Officer, the advance notification or consent requirements were satisfied for certain subcontracts evaluated during negotiations, the Contracting Officer shall identify those subcontracts in paragraph (k) of the clause at 52.244-2.

See section 3.12.4.4 regarding ratification of subcontracts after they have been awarded.

3.12.4.2 Considerations

The Contracting Officer responsible for consent will review the request and supporting data and consider the following:

- consistency with contractor's approved make-or-buy program (see FAR 15.407-2)
- subcontract is not for special test equipment of facilities available from Government sources (see FAR 45.3)
- technical justification for selection of the particular supplies, equipment, or services

- compliance with SADBU program (see FAR Part 19)
- adequacy of price competition or justification for non-competitive procurement
- contractor assessment of subcontractor alternate proposals
- contractor basis for selecting and determining the responsibility of subcontractor
- contractor substantiation for selecting subcontractor on basis other than price
- adequacy of contractor-performed adequate cost or price
- appropriateness of subcontract-type given risks involved and current policy
- contractor consideration for any proposed subcontract involving the use of Government-furnished facilities
- adequacy of contractor's translation of prime contract technical requirements to subcontract requirements
- contractor compliance with applicable cost accounting standards for subcontract award
- ensuring subcontractor is not on the list of parties excluded from Federal procurement and non-procurement programs (see FAR 9.4)

A thorough review of these considerations is particularly important when:

- the prime contractor's purchasing system or performance is inadequate
- close working relationships or ownership affiliations between the prime and subcontractor may preclude free competition or result in higher prices
- subcontracts are proposed for award on a noncompetitive basis, at prices that appear unreasonable, or at prices higher than those offered to the Government in comparable circumstances
- subcontracts are proposed on a cost-reimbursement, time-and-materials, or labor-hour basis

3.12.4.3 Technical and Administrative Review

Although General Specifications for Ships (GENSPECS) of the United States Navy has been cancelled, Section 042(h) may still be incorporated in the ship specifications of new construction contracts. This section requires the contractor to provide SUPSHIP with copies of purchase orders. Under the "Inspection" clauses of the contract, SUPSHIP can review

such procurements for technical adequacy and the need of assigning field administration responsibilities to Government representatives cognizant of subcontractor plants.

Like GENSPECS, inspection and quality assurance specifications MIL-I45208 and MIL-Q-9858 have been cancelled, but may still appear in new construction contracts. The appropriate ISO specification is generally replacing these canceled specifications. These specifications set forth contractor procedures and obligations pertinent to contract administration, including the review of subcontracts.

SUPSHIP may perform complete technical reviews of selected important subcontracts; other subcontracts may be appropriately examined on a spot-check basis. Technical review involves, but is not limited to, examination of a proposed subcontract to:

- determine the subcontract's conformance to applicable drawings, specifications, QA requirements, and good ship work practices
- ensure that orders for material requiring qualification approval are placed with suppliers on the qualified products list
- ensure that requirements regarding on-board repair parts, vendor plans, and technical manuals are included, when required
- determine that required options for stock components and stock repair parts are included
- determine that the proper issue of specifications is used

Each subcontract should contain all clauses required by the prime contract.

Contractors and SUPSHIPs should review the general provisions of subcontract and purchase order forms at regular intervals to ensure the incorporation of requirements imposed by the provisions of the applicable prime contract.

3.12.4.4 Additional SUPSHIP Consent Procedures

SUPSHIPs will prepare a local instruction that delineates the field activity organizational responsibilities for conducting required subcontract consent reviews.

ACOs will give the contractor's request for consent equal review whether the ACO has consent authority or must endorse the request to the PCO. The ACO endorsements to the PCO will contain all necessary information and recommendations for PCO action.

The Subcontract clauses permit the ACO to ratify a subcontract that has been placed by the contractor even though prior consent was required. In accordance with NCH 44.202-1, ACOs shall not ratify subcontracts as a routine procedure in lieu of granting consent prior to their placement. Ratification should be the exception to the rule and should be granted only on a case-by-case basis. If, based on the review, it appears that the ultimate cost to the

Government may have been increased by the placement of the subcontract without consent, the ACO will consult with counsel about placing the contractor on notice that the Government will not be liable for such an increase. If it appears that a change in the contractor's procedures is required to preclude further placement of subcontracts prior to consent, the ACO will direct the contractor to take corrective action.

3.12.4.5 Consent Limitations

The Contracting Officer's consent to a subcontract or approval of the contractor's purchasing system does not constitute a determination of the acceptability of the subcontract terms or price, or of the allowability of costs, unless the consent or approval specifies otherwise. Contracting Officers will not consent to:

- cost-reimbursement subcontracts if the fee exceeds the fee limitations of FAR 16.301-3
- subcontracts providing for payment on a cost-plus-percentage-of-cost basis
- subcontracts obligating the Contracting Officer to deal directly with the subcontractor
- subcontracts that make the results of arbitration, judicial determination, or voluntary settlement between the prime contractor and subcontractor binding on the Government
- repetitive or unduly protracted use of cost-reimbursement, time-and-materials, or labor-hour subcontracts (Contracting Officers should follow the principles of FAR 16.103(c))

Contracting Officers should not refuse consent to a subcontract merely because of a clause giving the subcontractor the right of indirect appeal to the Armed Services Board of Contract Appeals (ASBCA) if the subcontractor is affected by a dispute between the Government and the prime contractor. Indirect appeal means assertion by the subcontractor of the prime contractor's right to appeal or the prosecution of an appeal by the prime contractor on the subcontractor's behalf. The clause may also provide that the prime contractor and subcontractor will be equally bound by the Contracting Officer's or board's decision. The clause may not attempt to obligate the Contracting Officer or the appeals board to decide questions that do not arise between the Government and the prime contractor or that are not applicable under FAR 52.233-1, "Disputes."

3.12.5 Contractor Purchasing System Reviews

3.12.5.1 Objective

The objective of a Contractor Purchasing System Review (CPSR) is to evaluate the efficiency and effectiveness with which the contractor spends Government funds and complies with Government policy when subcontracting. The review provides the ACO a

basis for granting, withholding, or withdrawing approval of the contractor's purchasing system.

The ACO is responsible for reviewing the contractor's purchasing system. Members of other organizations, such as audit or program management activities should not conduct separate reviews of a contractor's purchasing system, but may participate in a review conducted by the ACO. These organizations may, if they suspect a problem, recommend that the ACO initiate a special review.

3.12.5.2 Requirements

The ACO shall determine the need for a CPSR based on, but not limited to, the past performance of the contractor, and the volume, complexity, and dollar value of subcontracts. If a contractor's sales to the Government (excluding competitively awarded firm-fixed-price and competitively awarded fixed-price with economic price adjustment contracts and sales of commercial items pursuant to FAR Part 12) are expected to exceed $25 million [FAR 44.302] during the next 12 months, a review to determine if a CPSR is needed should be performed. Sales include those represented by prime contracts, subcontracts under Government prime contracts, and modifications. Generally, a CPSR is not performed for a specific contract. The head of the agency responsible for contract administration may raise or lower the $25 million [FAR 44.302] review level if it is considered to be in the Government's best interest.

A CPSR will be conducted by the cognizant contract administration agency at least every three years for contractors that continue to meet the requirements of the above section. This review may be accomplished at one time or on a continuing basis. A more frequent review cycle may be established if warranted and special reviews may be conducted when information reveals a deficiency or major change in the contractor's purchasing system, policy, procedures, or key personnel.

The ACO is responsible for establishing procedures and conducting contractor's purchasing system reviews at the SUPSHIPs.

3.12.5.3 Extent of Review

A CPSR requires an evaluation of the contractor's purchasing system. Unless segregation of subcontracts is impracticable, this evaluation shall not include subcontracts awarded by the contractor exclusively in support of Government contracts that are competitively awarded firm-fixed-price, competitively awarded fixed-price with economic price adjustment, or awarded for commercial items pursuant to FAR Part 12. The considerations listed in FAR 44.202-2 for consent evaluation of particular subcontracts also shall be used to evaluate the contractor's purchasing system, including the contractor's policies, procedures, and performance under that system. Special attention shall be given to those areas identified in FAR 44.303.

3.12.5.4 Surveillance

In accordance with FAR 44.304 and NCH 44.304, the ACO is responsible for establishing a surveillance plan and maintaining a sufficient level of surveillance to ensure that the contractor is effectively managing its purchasing program. Surveillance may be accomplished with the assistance of subcontracting, audit, pricing, technical, or other specialists as necessary. For more specific information regarding an adequate surveillance plan and the initiation of special reviews, if necessary, refer to FAR 44.304 and DFARS 244.303.

3.12.5.5 Granting, Withholding, or Withdrawing Approval

The following sections discuss the granting, withholding, and withdrawal of approval of a contractor's purchasing system.

3.12.5.5.1 Responsibilities

The cognizant ACO is responsible for granting, withholding, or withdrawing approval of a contractor's purchasing system. The ACO will:

- approve a purchasing system only after a CPSR discloses that the contractor's purchasing policies and practices are efficient and provide adequate protection of the Government's interests
- promptly notify the contractor in writing of the granting, withholding, or withdrawing of approval

3.12.5.5.2 Notification

The notification that grants system approval shall include:

- identification of the plant or plants where the review was conducted
- the effective date of approval and period for which approval is valid
- a statement that system approval:
    - applies to all Federal Government contracts at that plant to the extent that cross-serving arrangements exist;
    - waives the contractual requirement for advance notification in fixed-price contracts, but not for cost-reimbursement contracts;
    - waives the contractual requirement for consent to subcontract in fixed-price contracts and for specified subcontracts in cost-reimbursement contracts but not for those subcontracts, if any, selected for special surveillance and identified in the contract schedule; and

  - may be withdrawn at any time at the ACO's discretion.

- In exceptional circumstances, a consent requirement for certain subcontracts or classes of subcontracts, even though the contractor's purchasing system has been approved. The system approval notification will identify the class or classes of subcontracts requiring consent. Reasons for selecting the subcontracts include the fact that a CPSR or continuing surveillance has revealed sufficient weaknesses in a particular area of subcontracting to warrant special attention by the ACO.

At the completion of the in-plant portion of the review, the ACO shall hold an exit conference with the contractor. At the conference, the ACO should:

- Present the review team's recommendations, signed by the ACO;
- Request the contractor submit its plan for correcting deficiencies or making improvements within 15 days; and
- Not comment on the pending or planned decision to grant or withhold approval of the contractor's purchasing system.

The complete report is submitted to the ACO, or any department or agency established review board, within 10 days after receipt of the contractor's response.

The ACO should completely review the report and consider the contractor's response before making a decision on granting, withholding, or withdrawing purchasing system approval. The ACO shall notify the contractor of the decision within 10 days after receipt of the report with a copy of the decision to the contracting office, when requested.

When a contractor advises that it has corrected deficiencies that led the ACO to withhold or withdraw the purchasing system approval, the ACO:

- shall request the PSA to verify that the contractor has:
  - corrected the deficiencies
  - implemented any other ACO recommendations
- should ask for a review of purchasing policies and procedures issued since the last review

3.12.5.5.3 Withholding or Withdrawing Approval

The ACO shall withhold or withdraw approval of a contractor's purchasing system when there are major weaknesses or when the contractor is unable to provide sufficient information upon which to make an affirmative determination. The ACO may withdraw approval at any time on the basis of a determination that there has been deterioration of the contractor's purchasing system or to protect the Government's interest. Approval shall be

withheld or withdrawn when there is a recurring non-compliance with requirements, including but not limited to:

- Cost or pricing data (see FAR 15.403);
- Implementation of cost accounting standards (FAR Part 30);
- Advance notification as required by the clauses prescribed in FAR 44.204; or
- Small business subcontracting (see FAR 19.7).

3.12.5.6 Disclosure of Approval Status

Upon request, the ACO may inform a contractor that the purchasing system of a proposed subcontractor has been approved, but will caution that the Government will not keep the contractor advised of any changes in the approval status. If the proposed subcontractor's purchasing system has not been examined or approved, the contractor will be so advised.

3.12.5.7 Reports

The ACO shall distribute copies of CPSR reports; notifications granting, continuing, withholding, or withdrawing system approval; and Government recommendations for improvement of an approved system, including the contractor's response, to the following:

- cognizant contract audit office
- activities prescribed by the cognizant agency
- contractor (furnishing copies of the contractor's response is optional)

3.13 Contract Claims

3.13.1 Introduction

It is the policy of the Government to try to resolve all contractual issues in controversy by mutual agreement at the Contracting Officer's level. The Contract Disputes Act (CDA) of 1978 (see FAR 33.202), as amended, establishes procedures and requirements for asserting and resolving claims subject to it. The "Disputes" clause included in Government contracts, FAR 52.233-1, implements the CDA and obligates a contractor to continue to perform, pending resolution of disputes arising under a remedy granting clause in the contract. FAR 33.2, DFARS 233.2, NMCARS 5233.2, and NCH 33.2 also cover disputes, claims, and appeals.

Analyzing and resolving claims can be the most time-consuming, costly, and difficult of all contract administration tasks. However, this process is greatly simplified if SUPSHIPs have an effective claims program which ensures that the analysis and resolution of claims is conducted in an unbiased and impartial manner. The purpose of this section is to define

what constitutes a claim under the CDA, point out areas where disputes generally arise, and to describe how SUPSHIPs can attempt to resolve and perhaps even avoid issues arising under or related to a contract in a timely, cost-effective manner.

3.13.2 Definition of a Claim

FAR 52.233-1 defines a claim as "a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or related to this contract". The FAR further provides that the submission of a voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim. However, a contractor's submission may become a claim if the contractor complies with the submission and certification requirements in accordance with the "Disputes" clause, and if the parties dispute the submission either as to liability or amount, or if the Contracting Officer fails to act on the request in a reasonable time. Conversely, not every non-routine submission constitutes a "claim" under the FAR. The Federal Circuit Court has held that the FAR definition of a claim does not require a pre-existing dispute as to either amount or liability when a contractor submits a non-routine written demand seeking payment of money in a sum certain.

In order for a contractor's submission to become a "claim" under the CDA, as it is implemented by the "Disputes" clause, there are four prerequisites which must be met. The submission must be:

- a written demand or assertion by one of the contracting parties
- seeking the payment of money in a sum certain as a matter or right
- submitted to the Contracting Officer for decision
- certified if the amount requested is $100,000 or more

The certification for a CDA claim provides that the claim is made in good faith; supporting data is accurate and complete to the best of the contractor's knowledge and belief; the amount requested accurately reflects the contract adjustment for which the contractor believes the Government is liable; and the person submitting the claim is duly authorized to bind the contractor.

These requirements become important because the CDA requires on a contractor's claim, that the Government is to pay interest for the amount found due and unpaid from either the date that the contracting office received the claim or the date payment would otherwise have been due, if that date is later, until the date of payment. Receipt of a proper CDA claim by the Contracting Officer also triggers the amount of time the Government has to respond to the allegations made in the claim. For claims of $100,000 or less, the Contracting Officer must render a decision within 60 days of receipt of the contractor's written request. For contractor-certified claims over $100,000, the Contracting Officer must, within 60 days of the

receipt of the claim, issue a decision or notify the contractor of the date by which the decision will be made.

Often a contractor will file a “claim” which is lacking in one or more of the CDA requirements, or a contractor will specifically state that it is not filing a “claim” but a Request for Equitable Adjustment (REA). Per NCH 33.203, an REA is similar to a claim except that it is a contractor-request not submitted under the Contracts Disputes Act. Examples include non-routine written requests seeking recovery when unforeseen or unintended circumstances (such as government contract modification, differing site conditions, defective or late delivered government property or issuance of a late stop work order) increase the cost of contract performance. In prior years, there was a distinction made between the two submissions. However, decisions by the U.S. Court of Appeals for the Federal Circuit indicate that an REA which is not a routine request for payment is a claim within the meaning of the CDA, whether or not the Government’s liability for the amount was already disputed prior to the submission to the Contracting Officer. When there is a question as to whether the contractor submittal is an REA or a claim, request clarification and obtain concurrence from legal counsel.

3.13.3 Claims Program

3.13.3.1 Purpose

The goals of a claims program are to: 1) determine the basis for claims; 2) generate, analyze, and store data related to the claims; 3) analyze the merits of claims through the preparation of Technical Advisory Reports (TARs); and 4) resolve claims. A claims program should not be confused with claims avoidance. Claims avoidance, although extremely important, is just one aspect of a claims program. NAVSEA 022 should be contacted for claims program assistance related to new construction contracts.

3.13.3.2 Common Basis for Claims

The basis for claims can be broadly categorized into breaches of contract, insufficient compensation for formal change, late or defective Government-Furnished Property or Information (GFP or GFI), and constructive changes.

3.13.3.2.1 Breach of Contract

A breach of contract is defined as an unexcused non-performance of a contract occurring when one party to a contract:

- fails to perform wholly or in part
- gives notice beforehand that he will not perform the contract when the time for performance arrives (anticipatory breach)
- makes performance impossible for himself or for other party

A breach of contract gives the injured party the right to collect damages. Additionally, the party harmed by the breach may sometimes be excused from performing that party's part of the contract.

Damages are an award to compensate an injured party for the harm suffered as a result of the breach of contract. Damages for breach of contract are awarded to place the injured party in a position as good as it would have been in had the contract not been broken; damages are not awarded to punish the party who has breached the contract. Therefore, if the innocent party is not ultimately harmed by the breach, the innocent party can collect only "nominal damages" (e.g., the costs of the legal action). In general, the courts attempt to fulfill the injured party's reasonable expectancy of profit or benefit from the contract.

3.13.3.2.2 Insufficient Compensation for Formal Change

Claims for insufficient formal change compensation may arise when contractors believe adjudicated formal changes have been insufficiently compensated or when agreement with the Government on the equitable adjustments for unadjudicated formal changes has not been reached. In the first case, contractors normally assert Government responsibility for additional impact costs, such as disruption beyond that recognized in contract modifications covering formal changes. Contractors usually allege unforeseen costs and circumstances associated with implementing a particular change or cumulative effects of formal and informal changes and attack any caveats or attempt to overcome any claim release language included in the modifications. In the second case, contractors simply assert the Government's offer for equitable adjustment is inadequate.

3.13.3.2.3 Late or Defective GFP or GFI

When a contract obligates the Government to provide Government-furnished property and information to a contractor, the Government must provide it by the date specified, or if no date is specified, whenever the contractor reasonably requires it. Failure to do so may entitle the contractor to an equitable adjustment. Further, the GFP or GFI must be suitable for its intended use or purpose when the contractor receives it (unless the contract provides otherwise) or the contractor may similarly be entitled to an equitable adjustment.

Late or defective furnished government property and information ranks second only to constructive change orders as the most frequent basis for claims.

3.13.3.2.4 Constructive Change Orders

The most common basis for claims is a constructive change order. A constructive change order is generally recognized as an unwritten change to the contract as a result of Government actions or inactions, which the contractor did not perform voluntarily, and has the effect of requiring the contractor to perform work different from, or in addition to, that prescribed by the terms of the contract.

The constructive change order doctrine is a judicially developed doctrine, the purpose of which is to achieve equity. A constructive change is generally held to have occurred when

some course of conduct by the Government is treated as the equivalent of a formal change order issued pursuant to the “Changes” clause of the contract; and so the designation “constructive change order”.

For a constructive change to have occurred there must be a change element and an order element. The change element involves a determination that actual performance by the contractor went beyond the minimum scope of work required by the terms of the contract. The order element involves a determination that the Government ordered the contractor to make the change; i.e., the Government, by words or deeds, required the contractor to perform the work which was not required by the contract.

An understanding of the constructive change order doctrine requires understanding of the authority rules because the Government’s order must have come from someone with authority to bind the Government. The Government is bound by acts of its employees only if the employees have the actual authority to perform the acts; whereas a contractor is bound by acts of employees with apparent authority. While this rule is applied in clear-cut situations, the rule’s harshness towards contractors has been mitigated by such principles and processes as implied authority, imputed knowledge, ratification, finality, and estoppels. Such principles and processes are frequently applied to situations to prevent injustices. Nonetheless, a contractor has the obligation to determine the authority of the Government personnel with whom the contractor is dealing, unless to do so is clearly impractical.

The five major areas in which constructive changes occur are addressed below.

3.13.3.2.4.1 Contract Misinterpretation

The most common and earliest type of constructive change order occurs where the contractor and the Government disagree on the work necessary to meet contract requirements. Normally in such a situation, either the contractor proposed to perform the contract in a certain manner and the Contracting Officer insists a more expensive method, or the parties disagree on whether completed work complies with contract requirements. Contractors generally perform in accordance with the Government’s interpretation to avoid the risk of default, but frequently submit a claim later.

The basic rule of constructive change in this area has been summarized by the Armed Services Board of Contract Appeals (ASBCA) as follows:

Whereas a result of the Government’s misinterpretation of contract provisions a contractor is required to perform more or different work, or to higher standards, not called for under its terms, the contractor is entitled to an equitable adjustment pursuant to the Changes Article, including extensions of time.

3.13.3.2.4.2 Defective Specifications

A second major category of constructive change order occurs when the Government provides defective specifications and the contractor incurs additional expense attempting to perform. The Government’s breach of the implied warranty of specifications information is

claimed to have occurred when the contractor is required to perform work beyond that originally contemplated by the Government's design specifications.

3.13.3.2.4.3 Failure to Disclose Vital Information (Superior Knowledge)

Nondisclosure is a change to the contract where the contractor undertakes to perform the contract without knowledge of vital information that affects performance. In order to be liable, the Government must be aware the contractor had no such knowledge, the specifications misled the contractor and did not put the contractor on notice to make inquiry, and the Government failed to provide the information.

3.13.3.2.4.4 Constructive Acceleration

Excusable delays give the contractor entitlement to schedule extensions. Constructive acceleration occurs when the Government refuses to recognize a new contract schedule extension based upon excusable delay and demands that the contractor complete performance in advance of the original schedule or complete performance within the original schedule. Acceleration can occur even in the case of non-excusable delay if the Government directs the contractor to accelerate. Of course, the Government does have the right to terminate for default in the event of non-excusable delay. The contractor's acceleration efforts need not be successful. A reasonable attempt to meet the completion date is sufficient for recovery should acceleration be found. In some instances, a contractor may accelerate on the contractor's own initiative to assure completion within the contract schedule or even ahead of schedule. The costs of such acceleration are, of course, not recoverable from the Government.

3.13.3.2.4.5 Failure to Cooperate/Hindrance of Performance

A category of constructive changes is the failure of the Government to cooperate with the contractor or to administer the contract in such a manner that hinders, delays, or increases the cost of performance. These obligations can be expressed or implied.

The Government may actively interfere with the contractor, making performance more costly or difficult. If the Government's interference is justified, there is no Government liability; however, if the Government's action is wrongful, the Government will be held to have breached its implied duty not to hinder or interfere with the contractor's performance. When some Government action is essential for the contractor to perform, the Government will be held liable if the Government wrongfully fails or refuses to take the action. In such cases, the Government is said to have breached its implied duty to cooperate. These implied duties are a part of every Government contract. Most of the more recent cases decided under this theory grant relief under the doctrines of constructive change or constructive suspension of work.

3.13.4 Generating, Analyzing, and Storage of Data

Generating, analyzing, and storing of data can determine the success of resolving a claim by negotiation or litigation, especially the latter. Further, these actions are necessary to ensure

effective involvement by SUPSHIPs to monitor contractors' performance adequately, regardless of whether claims are submitted.

3.13.4.1 Generating Data

3.13.4.1.1 Significant Events

One of the best approaches to ensure the generation of necessary data to analyze and resolve claims is requiring all relevant data on significant events be promptly generated. A significant event is anything that occurs pertaining to a contract, other than formal contract modifications, having a material impact on cost, quality, or delivery. Significant events can be caused by either the Government or contractors and include the following:

- ship delivery schedule changes or problems
- drawings, designs, and specifications which are ambiguous, defective, or impossible to perform
- differences in interpretation of contract provisions
- delay and disruption of contractor effort
- changes in method of sequence of work
- late or defective Government-furnished material, property, or information
- rejections, rework, waivers, and deviations
- planned versus actual performance milestones
- delays in Government actions, such as processing engineering change proposals, consent to subcontracts, and review of technical data
- contractor error and noncompliance with contract terms
- any other Government or contractor actions or inactions which have the effect of requiring the contractor to perform work different from the work prescribed by the original terms of the contract

NCH 33.9 provides as follows:

> "(a) In addition to the significant events set forth in NMCARS 5233.9000 which may contribute to a potential claim, the circumstances listed may apply:
>
> (1) if the contractor believes the Government has superior knowledge of an aspect of the job and withheld that knowledge from the contractor;

(2) if the contractor believes that Government action or conduct under one contract adversely affects contractor performance on another contract (cross-contract impact);

(3) if the contractor believes that the Government has improperly performed contract administration duties, which interfere with the contractor's conduct of his own business;

(b) A contractor's failure to adhere to a schedule or to control costs may lead him to seek recovery of consequent losses via a claim."

Data that should be generated for each significant event should include as a minimum:

- nature and pertinent circumstances of the event
- date of the event and the identification of Government and contractor personnel involved, including the name and function of the respective individuals
- identification of any relevant documents involved
- substance of any oral communications related to the event
- statement concerning the possible consequences or effects of the event described upon the contract cost, schedule, or technical performance, including manner or sequence of performance

Normally, a separate file should be established for each significant event. An individual should be assigned this task to ensure that all relevant future data is generated and properly filed. A cross-reference on the location of documents that are impracticable to include in the file should be included.

3.13.4.1.2 Routine Documents, Analyses, and Reports

Routine documents, analyses, and reports are those documents: 1) prepared for the Government according to contract requirements; 2) prepared by the contractor for internal use; or 3) prepared by the Government for internal purposes. These documents typically include valuable information concerning cost and schedule (including reasons for variances) and general information concerning the contractor's facilities, manpower, and financial condition. These documents should be carefully analyzed and correlated with significant events.

3.13.4.1.3 Special Documents, Analyses, and Reports

Occasionally, the documents for significant events and the routine documents, analyses, and reports generated by the contractor will be insufficient. This need for additional information would be expected to happen most frequently on larger and more complex contracts where cumulative delay and disruption may be involved. Then, data regarding the operations of the

contractor, the instant contract, and any other contract or program with which the contract has had an impact may need to be systematically collected, organized, analyzed, and retained. These documents typically cover contractor programs or contracts, contractor resources, contract administration, and schedule and cost performance.

3.13.4.2 Analyzing Data

The data described in section 3.13.4.1 must not only be generated, it must be promptly analyzed by the claims team to determine causes, the responsible party, and the impacts on cost, quality, and delivery resulting from significant events. Many claims are submitted either toward the end of contract performance or after all work has been completed. In recent years, however, contractors have submitted claims during the middle of contract performance or complex contracts requiring massive work efforts. In these cases, usually numerous changes causing delay and/or disruption have taken place. The Government is at a decided disadvantage if the data described above has not been generated and analyzed during contract performance. Analysis can generally be performed easier and more accurately if performed within the same general timeframe of the significant event.

Proper resolution of contractor claims is dependent upon the adequacy of both the available contractor and Government information concerning the relevant facts. The claim will reflect the contractor's version of events, actions, circumstances, and conditions that may have taken place and the contractor's version may or may not be accurate. It is extremely difficult for the Government to accurately analyze and reconstruct the facts after receipt of the contractor's claim.

Adequate documentation and analysis during contract performance is necessary for the Government to verify, quantify, or refute matters which a contractor presents in support of, or as the basis of, the contractor's claim.

3.13.4.3 Storing Data

Data concerning significant events will be kept in a separate folder(s) for each contract and identified as the "Significant Events" file. Those records which are already maintained separately as part of the contract file, as required by regulations, need not be included in the "Significant Events" file. When pertinent documents needed to complete the record are located elsewhere, copies of such documents or a cross-reference will be included in the "Significant Events" file. All non-factual information (e.g., opinions and conclusions expressed) contained in the "Significant Events" file will be marked "FOR OFFICIAL USE ONLY". Legal documents should be placed in a separate file marked "Attorney-Client Privilege".

If a claim is submitted or anticipated, more extensive filing of data is required. A relatively small claim may require storage of much data for claims analysis and processing purposes, and litigation is always a possibility. If the amount of data is relatively small, a manual storage and retrieval system will suffice. On the other hand, if the amount of data is relatively large, data processing support may be necessary.

Collecting and managing a large volume of data can become impractical or impossible without the support of automated data processing and database management systems. In analyzing and processing a major claim, a database management system may also be needed for the following:

- reconstructing, merging, and reorganizing resource-related data, such as manpower applications and transactions
- repetitive and iterative computations, such as claim element pricing
- specialized analytic techniques and one-time computations involving many steps of voluminous data, such as statistical analysis

The system used should depend on cost, time, needs, and resources.

3.13.5 Analyzing Claims and Preparing TARs

The approach used in analyzing a claim and presenting the results is much more important than was recognized in the past. The approach can result in a waste of time and money on the part of the Government and over-compensating the contractor. Inadequate consideration to areas presented in the claim and the format of TARs can result in considerable rework, particularly if negotiation is unsuccessful and the merits of the claim have to be litigated. It can also result in the case being lost.

3.13.5.1 Analyzing Claims

The analysis of claims involves the “Direct Approach”, the “Total Cost and Environment Approach”, or a combination of the two approaches. The latter should generally be used especially if the actions covered in this chapter have been taken regarding significant events. The unwarranted selection of the total cost and environment approach will result in wasted time and money, while the selection of the direct approach could result in over-compensating the contractor.

3.13.5.2 Direct Approach

Analysis of a claim by the “Direct Approach” involves primarily the facts about causes and impacts contained in the immediate claim environment. Additional relevant facts will expand the area covered during claims analysis. This approach leads to a position based on logic and conclusions derived from a restricted field of facts. Nevertheless, the time and cost advantages of the “Direct Approach” indicate that the “Direct Approach” should be used for small and simple claims analysis involving a single or rather straightforward cause and effect rationale.

3.13.5.3 Total Cost and Environment Approach

A “Total Cost and Environment Approach” extends the analysis of a claim to include the total environment of the claim and all cost and schedule growth related to the relevant contract. It

is distinguished from a claim analysis approach which pursues some paths of inquiry beyond the strict confines of the immediate claim environment. The “Total Cost and Environment Approach” is an expanded direct approach in that it is directed outside the immediate claim environment. This approach is preferred for larger and more complicated claims, such as those involving massive amounts of delay and disruption, unless the expanded claims preparation effort is unwarranted.

The “Total Cost and Environment Approach” consists of the following steps:

- “Profiling” the contractor’s operations and contracts or programs of interest. Profiling is the systematic collection, organization, analysis, and presentation of data regarding the contractor’s operations, the contract under which the claim is submitted, and any other contract or program having a cross-impact over the period of interest of the claim. For example, profiling of manpower (under contractor resources item below) should reveal information concerning the amount of manpower applied over specific periods of time, manpower characteristics (e.g., type, skill, turnover, absenteeism, etc.), and the way manpower was applied (e.g., overtime, manning, levels, supervisory ratios, etc. As appropriate, profiling should cover the following areas:
    - Contractor contracts or programs
    - Contractor resources
    - Contract administration
    - Schedule and cost performance
- Analyzing the profile reports generated in “profiling” to identify all causes of cost and schedule growth.
- Evaluating the causes of cost and schedule growth.
- Constructing an explanation of total cost and schedule growth.
- Including in the claim those aspects of cost and schedule growth that are the contractor’s responsibility.

3.13.5.4 Combination Approach

As indicated above, the combination approach should be used if the actions covered in this chapter have been taken regarding significant events. This is because the generation, analysis, and documenting of significant events will result in the necessary documentation to relatively quickly and accurately analyze and resolve contractor claims. In other words, a contractor’s claim will necessarily involve these same significant events.

3.13.5.5 Preparing TARs

Since the claim may be settled by negotiation, litigation, or both, the TAR should be developed in such a manner that it adequately covers all alternatives. A properly structured TAR format will ensure all alternatives and materials are addressed. Technical personnel and legal counsel personnel should work closely together on a TAR. If possible, legal counsel should be apprised of the progress being made on the TAR. Material that should be included in the TAR includes:

- Claim allegations - a brief description of the contractor's claim allegations written in layman's language so that personnel outside the contracts and engineering fields may readily understand it.
- Relevant facts
    - Applicable data - a listing of all data reviewed by the technical analyst while analyzing the claim
    - Sequence of events – a chronological listing of events pertaining to the claim
    - Identification of potential witnesses - identification of personnel who should be considered as witnesses in the event of litigation and an explanation of why these individuals were chosen
    - Contract modifications – a listing and summary of all relevant contract modifications
- Impact analysis - a presentation of cause and effect and quantification, assuming the contractor's position regarding entitlement is correct (this is necessary in the event of litigation and entitlement is decided in favor of the contractor)
    - Cause and effect
    - Quantification
- Entitlement – a presentation of cause and effect and quantification, making no assumptions regarding contractor entitlement
    - Cause and effect
    - Quantification
- Exhibits – all documents on which the facts, analysis, and conclusion of the TAR are based

3.13.6 Resolving Claims

A contractor's claim can be resolved in the following ways:

- Negotiation and settlement
- Alternative Dispute Resolution (ADR)
- Litigation, if negotiation and settlement fail
- Use of the mistake after award procedure, the Contract Disputes Act, and Public Law 85-804

3.13.6.1 Negotiation

Negotiation is preferred for settling a contractor's claim; however, this cannot always be achieved. For example, the contractor may have no entitlement or may have entitlement, but not be willing to settle for an amount that appears reasonable to the Government.

3.13.6.2 Alternative Dispute Resolution (ADR)

Alternative Dispute Resolution means any type of procedure or combination of procedures voluntarily used to resolve issues in controversy. These procedures may include, but are not limited to, conciliation, facilitation, mediation, fact-finding, mini-trials, arbitration, and use of ombudsmen.

Per FAR 33.204, it is Government policy to try to resolve all contractual issues in controversy by mutual agreement at the Contracting Officer's level. Reasonable efforts should be made to resolve controversies prior to the submission of a claim. Agencies are encouraged to use ADR procedures to the maximum extent practicable.

3.13.6.3 Litigation

The litigation process for new construction contracts is outlined in Figure 3-1.

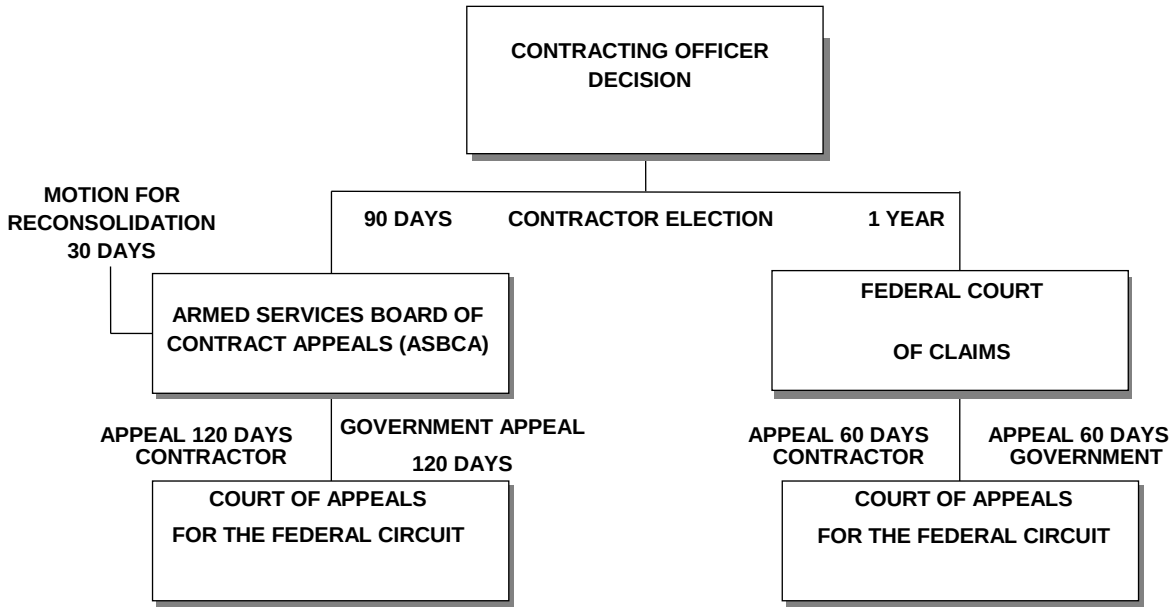

Figure 3-1: Federal Courts Improvement Act Procedure

The litigation process for repair and overhaul contracts is the same as the above, with the exception that some District Courts will accept appeals from Contracting Officer decisions since District Courts have jurisdiction over admiralty issues. Appeals from District Court decisions may be taken to the appropriate Appellant Court for that particular circuit.

Negotiation is generally preferred to litigation for the following reasons:

- business relations between the two parties may be negatively affected and consequently day-to-day business is difficult to conduct
- the contractor's management personnel devote much time to prosecuting the claim against the Government at the expense of managing the contract efforts
- litigation is time-consuming and expensive
- the "right" party does not always prevail
- an adverse legal precedent may be established

3.13.6.4 Use of the "Mistake After Award" Procedures, the Contracts Dispute Act, and Public Law 85-804

3.13.6.4.1 Use of the "Mistake After Award" Procedures

If the general area of the contractor's claim or dispute involves a mistake in the bid or proposal that is not discovered until after award, then the procedures authorized by FAR 14.407-4 may be to the party's advantage in lieu of dispute procedures. These procedures authorize an agency to make a determination:

- to rescind a contract
- to reform a contract to:
    - delete the items involved in the mistake
    - increase the price if the contract price, as corrected, does not exceed that of the next lowest acceptable bid or proposal under the original invitation for bids

These determinations may only be made on the basis of clear and convincing evidence of a mistake in the bid or proposal. In addition, the mistake must clearly have been mutual or, if unilaterally made by the contractor, so apparent as to have charged the Contracting Officer with notice of the mistake.

To support a mistake after award claim, the contractor will be required to submit a written statement and pertinent evidence, such as the following, to the Contracting Officer:

- the contractor's file copy of the bid
- the contractor's original worksheets and other data used in preparing the bid
- subcontractors' and suppliers' quotations, if any
- published price lists
- any other evidence that will serve to establish the mistake, the manner in which the mistake occurred, and the bid actually intended

A case file will then have to be prepared and processed in accordance with FAR 14.407-4 (e) and (f) and any implementing regulations. Each determination must be coordinated with legal counsel.

3.13.6.4.2 Use of the Contract Disputes Act (CDA)

Certain kinds of relief previously available only under Public Law 85-804 (i.e., legal entitlement to rescission or reformation for mutual mistake) is now available under the Contract Disputes Act of 1978 and the "Disputes" clause.

A contractor's allegation of being entitled to rescission or reformation of the contract to correct or mitigate the effect of a mistake is required by FAR 33.205(b) in order to be treated as a claim under the Contract Disputes Act. A contract may be reformed or rescinded by the

Contracting Officer if the contractor would be entitled to such remedy or relief under the law of Federal contracts. While it is not clear, this authority apparently applies to instances having a recognized judicial basis for the contractor's claim, such as mistakes.

A claim that is either denied or not approved in its entirety according to the procedure discussed above may be recognized as a request for relief under Public Law 85-804. The claim must first, however, be submitted to the Contracting Officer for consideration under the Contract Disputes Act because the claim is not recognized under Public Law 85-804, as implemented by FAR Part 50, unless other legal authority in the agency concerned is determined to be lacking or inadequate.

3.13.6.4.3 Use of Public Law 85-804

Public Law (P.L.) 85-804 "empowers the President to authorize agencies exercising functions in connection with the national defense to enter into, amend, and modify contracts, without regard to other provisions of law related to making, performing, amending, or modifying contracts, whenever the President considers that such actions would facilitate the national defense." This authority has been conferred on the heads of DoD and DoN, who may delegate it to other officials within the departments. Requests for relief under P.L. 85-804 are not claims within the CDA or the "Disputes" clause, and are to be processed under FAR Part 50.

Examples of the types of contract adjustments that may be made under Public Law 85-804 include, but are not limited to, the following instances:

- modification to the contract without consideration from the contractor
- correcting mistakes
- formalizing informal commitments

P.L. 85-804 may not be relied upon when other adequate legal authority exists with a department. Any requests from contractors for relief under Public Law 85-804 will be forwarded to NAVSEA 022 for action.

3.13.7 Specific NAVSEA Requirements

3.13.7.1 Applicability

The contents of this section are applicable to claims which are asserted by a contractor under the Contract Disputes Act of 1978.

3.13.7.2 Definitions and Approval Levels

A claim is defined in FAR 52.233-1 as a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the

contract. The contractor seeking the payment of money exceeding $100,000 (FAR 52.233-1) is not considered a claim under the Contract Disputes Act of 1978 until certified as required by the Act and FAR 33.207. The contractor also must request a Contracting Officer's decision under the Contract Disputes Action of 1978. All claims, regardless of amounts, are to be reported to NAVSEA 02 by the SUPSHIP. In general, claims received in the field will be handled by the cognizant SUPSHIP. This includes reviewing the claims for sufficiency processing, unless the specific circumstances of a claim dictate that Headquarters will handle these matters. NAVSEA 02 will notify the cognizant SUPSHIP in such cases. If all data necessary to adequately support the requested compensation is included in the contractor's submission, a contract modification should be executed so that payment can be made. Any submission from a contractor requesting payment beyond the obligations covered in the contract, which does not request a Contracting Officer's decision under the Disputes Act and contains the claim certification (if applicable), is considered to be a claim.

3.13.7.3 Claims Prevention

NAVSEA's policy is to try to resolve all contractual issues by mutual agreement at the Contracting Officer's level without litigation. In appropriate circumstances, the Contracting Officer should consider the use of informal discussions between parties or individuals who have not participated substantially in the matter in dispute to aid in objectively resolving the differences.

Any issue which remains unresolved between the contractor and the Navy represents a potential claim. To minimize the potential for claims, Navy personnel are expected to be aware of problem areas and to keep adequate records of events, particularly significant events. Matters having potential problems raised with or by the contractor must be fully documented and brought to the attention of the cognizant Contracting Officer for prompt resolution.

Issues leading to claims are often based on assessments made, opinions expressed, or other actions or inactions by Navy personnel who caused the contractor to perform additional work. Lack of schedule adherence or cost control by the contractor may lead the contractor to seek recovery of consequent losses through a claim. Identification of significant actions regarding contractor management and performance must be documented, i.e., actions pertaining to manning, facilities, methods, and procedures. Proper analysis of data may lead to the identification and mitigation or avoidance of potential trouble areas.

In an effort to prevent claims, the following activities will perform the functions discussed below:

NAVSEA 02 will:

- Conduct periodic reviews of NAVSEA's and SUPSHIP's claims avoidance activities.

- Provide training and assistance to NAVSEA and SUPSHIPs in the claims avoidance, claims prevention, and claims settlement areas as requested by NAVSEA managers or the individual Contract Administration Office (CAO).

- Participate with NAVSEA Program Managers and Contracting Officers in identifying and eliminating potential claims items during the formulation of new contracts.

- Periodically review on-going procurements for potential claim-producing items and recommend corrective action, as appropriate.

Supervisors of Shipbuilding, Conversion, and Repair will:

- Ensure the participation of all Departments in the identification and elimination of potential claims items throughout the procurement process.

- Avoid to the maximum practicable extent, all Government actions or inactions that impede contractor performance, particularly those that impede efforts to improve productivity. Contractors should be encouraged to report any such Government conduct.

- Monitor contractor performance and ensure that sufficient data is developed during contractor performance to enable prompt and accurate analysis of any claim. Use this same documented data to identify actual and potential problems and to defend against claims, overruns, and other problems.

- Strive to improve the ability to analyze and develop positions on contractor proposals that include delay and disruption, particularly those involving an allegation concerning cumulative effects. This requirement is closely related to the requirements above regarding monitoring of contractor performance.

- Conduct claims avoidance presentations periodically to ensure that CAO personnel are instructed in claims avoidance procedures. Emphasis should be placed on increasing the effectiveness of the local claims avoidance program.

- Assessment of contractor responsibility, such as pre-award surveys and records of past performance under Government contracts, will be relied upon to ensure that award is made only to those companies which are capable of meeting the contract requirements.

- Maintain lines of communication with PCOs to ensure that the lessons learned while administering current contracts can be used to benefit the Navy when planning and drafting future contract actions.

- Promptly review all new contracts assigned for administration and identify all clauses, provisions, specifications, and any other contract requirements that are new to the CAO or have the potential for causing a claim if not properly administered. CAO

personnel will be properly briefed. These requirements also apply to job orders and modifications, where appropriate.

- Adhere to requirements for properly documenting significant contract events.

3.13.7.4 Processing Claims and REAs

Contracting Officers should be familiar with the Contract Disputes Act of 1978 which establishes procedures and requirements for asserting and resolving claims by or against contractors arising under or relating to a contract subject to the Act. The Act provides for payment of interest on contractor claims, for the certification of contractor claims in excess of $100,000, and for a civil penalty for contractor claims that are fraudulent or based on misrepresentation of fact. For claims exceeding $100,000 the Act requires the Contracting Officer's Final Decision (COFD) within 60 days or notification to the contractor of the time within which the COFD will be issued. A direct appeal to the Armed Services Board of Contract Appeals (ASBCA) is allowed if there is an undue delay in issuance of the COFD. Under such circumstances, the FAR considers such actions to be deemed denial of the contractor's claim. Refer to FAR 33.211 (g).

NAVSEA 02 will have overall responsibility for NAVSEA claims settlement for shipbuilding contracts as specified below:

- Provide direction and assistance to field activities relative to claims and Request for Equitable Adjustments (REAs), as requested.
- Assign claims for processing.
- Process particular claims and REAs which are deemed to be of a precedent-setting nature, as determined by Headquarters.
- Provide technical support to field claims and REA teams, as requested.
- Compile and report status and statistics relative to claims and REAs which are either active, settled, or under appeal.
- Review and approve all field-originated Contracting Officer's Final Decisions (COFDs) under disputes which are valued by the contractor at $5 million or over in accordance with NCH 33.211. Review and revision will be done in conjunction with NAVSEA 00L for evaluation of entitlement, accuracy, and completeness. Following Headquarters' review and approval, the COFD will be returned to the ACO for execution and delivery to the contractor.
- Budget for, control, and allocate the required resources for Headquarters claims management efforts, including computer services and litigation support contracts.
- Support field efforts to secure funding for claim settlement.

In accordance with NCH 4.692, SUPSHIPs are to report all claims, regardless of dollar amount, and REAs over $250,000 to NAVSEA 02 no later than one week after receiving the claim or REA. The cognizant SUPSHIP will be responsible for establishing a claim analysis team and for assigning to the team a Contracting Officer or negotiator to act as the Claims Team Manager (CTM), an engineer to be the Claims Team Engineer (CTE), and additional personnel (Legal, DCAA Auditor, or Project Officer) as necessary for effective claim processing. The claim analysis team should be physically separate from the rest of the SUPSHIP operation and will not include personnel involved in the claim allegations.

REAs and claims often involve complex legal, factual, and financial issues. These issues normally require extensive fact finding and analyses. A system of checks and balances is needed to determine entitlement, if any, and any expenditure of Government funds. In REA and claim submissions, contractors often fail to differentiate between factual and judgmental assertions or fail to support all assertions with specific evidence; such submissions only serve to delay the process and frustrate the contractor and the Government. Rejection and return of the REA or claim is required should the documentation and support remain deficient. Before the claim can be evaluated and payment made for any Government-responsible costs, the contractor must provide data which illustrates that all claimed costs are accurate and the Government is responsible for the claimed costs.

Preliminary review of the claim will be made to determine acceptability and regulatory compliance. On REAs and claims with allegations proposing an impact of delay, disruption (local and cumulative), congestion, and acceleration and in cases involving specific constructive changes, the following or similar documentation (to the extent applicable and practicable) needs to be included in the claim or REA to enable Government evaluation and to avoid the rejection and return of the submission to the contractor as unsupported:

- The assertions must be supported by specific evidence (including applicable historical evidence such as bid and planned costs supported by shop-level production data from contractor's books and records). In general, the Government will not acknowledge damages based on a reason-value or total cost concept. The contractor must establish a causal link or connection between the alleged Government-responsible act and the increased costs. Opinions, conclusions, or judgmental assertions not supported by such evidence or by a sound and reasonable rationale are without probative value and are unacceptable.

- Claimant's documentation or charts of production manning for all trades and all projects throughout the period of performance, proposed and actual, should be available.

- A copy of the claimant's master schedule originally developed to support work items/packages and start and finish milestones must be included. Documentation supporting all updates and the interrelationship of schedule slippage with REA or claim items, sequence, data, etc. should also accompany a claim or REA.

- Claimant's shop manning requirements for all trades through period (proposed and actual) of performance must be provided.

- Contractors must provide basic bid data broken down into prime contractor hours by item with prime contractor responsibility, prime contractor material by item number, identification of material source and price bid, and the subcontracted portion of the basic bid, by item, with copies of subcontractor contracts definitizing the tasks to be performed by the subcontractors and the material to be supplied by the subcontractor as part of the basic bid. The total of all items must equal the bid price, or an explanation must be provided.

- Contractors must provide the planned or budgeted manhours after contract award for each item by trade and define whether the hours were performed by the prime contractor or subcontractor at a regular or premium time.

- Claimant's actual manhours expended for each work item by trade excluding modifications as performed by the prime contractor and subcontractors must also be included. Documentation needs to support the prime contractor's actual material costs for the basic job order and subcontractor costs and if the subcontractor has made a demand on the prime contractor. Hours should be broken down by straight time and premium time hours.

- A listing of all contract modifications by work item with the manhours proposed, budgeted, agreed to, and actually expended by modification must be provided.

- A breakdown of the claimant's entire overtime expended by work item or modification by trade, weekly through the contract performance period must be provided.

- Copies of all individual purchase orders, invoices, and receipts for payment of all subcontracts and material in support of REAs or claims must be provided.

- A written description by sequence, providing a logical, auditable trail, of the interrelationship between the as bid, as planned, and the actual as accrued schedule by work item distinguishing item labor hour details by trade and the event causing the delay or disruption must be provided.

- A copy of all SUPSHIP written work authorizations against any disputed effort included in the claim must be provided.

Note that there is no privity of contract between the Government and subcontractors. Subcontractor claims exist between the prime contractor and the subcontractor. The Government is not in a position to consider subcontractor claims that are simply passed through the prime contractor to the Government by a letter of transmittal. The prime contractor must provide the certification required and submit the claim on behalf of the subcontractor in order for the Government to evaluate the claims.

All REAs or claims involving subcontractors must establish the prime contractor's damage, payment for damage, or commitment to pay damage. Prime contractor's claims that show no commitment to pay the subcontractor do not constitute damage. The prime contractor must evaluate the subcontractor's claim, obtain objective evidence, and demonstrate that cause and effect were beyond the control of the prime contractor's prudent management business practices. The prime contractor must definitize what positive management actions were taken to minimize the prime contractor's exposure. A "Reason-Value" concept must not be accepted by the Government for subcontractor submittals. Prime contractors are to be cautioned to analyze subcontractor allegations thoroughly under prime contractor certification.

When a contractor submits a claim exceeding $100,000, the Contract Disputes Act requires the contractor to make certain representations above the claim in the form of a certification. The claim certification must be in accordance with FAR 33.207.

Certification is necessary before a Contracting Officer can consider the claim, analyze it, and issue a final decision. The contractor should properly certify the claim prior to submission to the Contracting Officer. When a contractor must certify the claim, supporting data and the amount of the contractor's entitlement must also be certified. To submit a proper certification, the person who signs the certification must have authority to bind the contractor with respect to the claim.

According to the provisions of the Contract Disputes Act, the Contracting Officer must issue a decision on any submitted claim of $100,000 or less within 60 days from the receipt of a written request for a decision from the contractor. For claims or more than $100,000, the Contracting Officer must, within 60 days, either issue a decision or notify the contractor of the time when a decision will be issued. The time established will be "reasonable", based on such factors as the size and complexity of the claim and the adequacy of the information in support of the claim provided by the contractor.

The Claim Team Manager (CTM), assisted by the claim analysis team, will review the claim or REA, prepare a claim or REA settlement milestone schedule within seven days, and provide NAVSEA 02 with information regarding the claim or REA required claims reports. Each claim or REA status report will be updated quarterly and submitted to NAVSEA 02 no later than five days following the last business day of each fiscal quarter or 48 hours following any significant event which would make obsolete the previous claim report. A final update marked "Final Report" will be submitted upon resolution of a claim or REA or an appeal.

The claim analysis team will investigate the claim or REA to assess the relevant facts required to establish a Government position. Pertinent legal issues will be addressed by counsel so that the factual inquiry will be thorough and comprehensive, extending to all sources (contractor, Government, and other) from which relevant data may be available. The burden of proof rests with the contractor to establish which additional costs were caused by an action or a failure to act by the Government and the amount of Government-responsible costs. The Government can request, receive, and inspect any and all relevant

data and records of the contractor. The claim settlement team will request the contractor to make available such documentation as necessary.

The team engineer will prepare the final TAR and consider the comments of all members of the team. The team engineer will endeavor to resolve any questions of factual issues. The TAR is a factual recitation of the claim, the existing facts, and the engineering evaluation and analysis of the validity of the claim on technical grounds. The TAR should include a recommendation on quantum and entitlement, supported by analysis, and identify questions or issues which require additional facts of expert testimony and potential witnesses. The TAR and addenda will be made available for use in legal and audit evaluation of the claim.

In accordance with (draft) NCH 33.204, DCAA audits will be requested for any claim or REA over $550,000 on which cost or pricing data is provided. The audit request letter should include a due date (approximately 45 days) for receipt of the formal audit report. The CTM will consult with the auditor to provide assistance in evaluating the contractor's proposal. A copy of the TAR should be provided to DCAA for incorporation into the DCAA audit report, if time permits.

The team’s legal counsel will be responsible for the preparation of the legal memorandum analyzing the merits of the claim, including a litigation risk assessment and recommendation on the course of action based on the facts. This memorandum will be furnished to other team members for reference purposes to develop a pre-negotiation position.

The CTM is responsible for following up regarding the due dates of the audit report, TAR, and Legal Memo to ensure that all advisory data is received timely. The CTM will develop a business clearance showing the pre-negotiation position range based upon the final TAR, Audit Report, legal memorandum, and other facts developed by the claim settlement team which will form the basis for negotiations. The pre-negotiation position will be presented to appropriate levels for approval. Negotiations will be conducted as soon as practicable after approval of the pre-negotiation business clearance. Unless otherwise directed by NAVSEA 02, the negotiation will be conducted by the CTM or designee with other team members participating when requested by the CTM. No settlement commitment will be made until a post-negotiation business clearance position has been approved. The post-negotiation business clearance will be prepared by the CTM and presented for approval.

After final agreement on price, the contractor will be required to provide a certificate of current cost or pricing data as set forth in FAR 15.406-2. After approval, the final settlement of the claim or REA will be made by supplemental agreement. If a Contracting Officer's final decision is issued, all files and back-up data will be preserved since this information is essential to the defense of the Government position in the event the contractor appeals the decision. The CTM is responsible for all administrative close-out actions. Within 90 days after settlement of a claim, the CTM will forward to NAVSEA 02 a memorandum report discussing lessons learned from claim analyses and suggested actions to avoid recurrence of similar claims.

When the cognizant Contracting Officer becomes aware of a potential claim by the Government against a contractor, a letter of intent will be prepared advising the contractor of the Government's impending claim. The letter will:

- Identify the contract to which the claim applies.
- State the legal or contractual basis of the intended action(s) by the Government.
- Provide the facts relating to the potential claim.
- Request the contractor to respond with any facts that would show why the impending Government claim should not be asserted.
- Establish the date on which the Government action will be initiated should the contractor not respond.

Prior to delivering the letter of intent to the contractor, the Contracting Officer will obtain the advice of counsel on its legal sufficiency. A receipt will be obtained from the contractor clearly showing the name of the person accepting the letter of intent and the date of acceptance. The Contracting Officer will advise NAVSEA 00L of the issuance of each letter of intent and provide a copy.

On receipt of the contractor's response, the Government's claim will be processed in the same manner as a contractor's claim. If the Government's claim results in a Contracting Officer's final decision, that decision will be processed similar to a contractor's claim against the Government. The applicable contract file will include a discrete file containing all material relating to each Government claim against a contractor. An office log will be maintained listing all claims against contractors.

3.13.7.5 Interest on Claims by Contractors

NAVSEA policy requires interest to accrue from the date of certification (FAR 33.207) when a dispute arises and not when the claim is filed with the CO.

3.13.7.6 Legal Fees

In general, the Government's policy is that claim preparation costs will not be compensated; FAR 31.205-33 and 31.205-47 contain details.

3.13.7.7 Contracting Officer's Final Decision

Per NCH 33.211, all field activities are authorized to issue COFDs for claims and denial letters for REAs less than $5 million without prior NAVSEA approval. If a COFD is issued, all files and back-up data will be preserved. They are essential to the defense of the Government position if the contractor appeals the decision.

NAVSEA 022 will provide technical support to claims and REA teams (if needed), review and approve field COFDs for disputes over $5 million, and support field office efforts to secure funding for claim settlement. The CTM is responsible for all administrative closeout actions.

ACOs are cautioned to pay particular attention to the time limitations on the issuing of a Contracting Officer's decision as imposed by FAR 33.211(c). If an ACO doubts that the applicable time limitation will be met, NAVSEA 00L will be advised immediately.

3.13.8 Resolution of Disputes

NAVSEA policy is that a dispute between a contractor and NAVSEA should be resolved by the cognizant Contract Administration Office (CAO). NAVSEA does not serve as a higher level of appeal for contractors in the event of disagreements between the contractor and the CAO.

3.13.8.1 Appeals

In accordance with NCH 33.212, when the Contracting Officer receives a contractor's appeal of a COFD, the Contracting Officer shall immediately forward the COFD and appeal to the cognizant office of counsel. Upon notification of an appeal, the Contracting Officer shall compile all documentation relating to the appeal as requited by legal counsel, including the COFD, the contract file, relevant correspondence, and transcripts of statements or affidavits by witnesses.

3.13.8.2 Negotiations with Appeal Pending

While the Navy is not precluded from seeking further agreement with the contractor after an appeal is filed, all such attempts are to be in accordance with Regulatory Requirements.

3.13.8.3 Third Party Lawsuits

If a third party enters a suit against a contractor who holds a cost-reimbursement or other type of contract under which the judgment of litigation fees might be reimbursable, the ACO should immediately inform NAVSEA counsel and the PCO, forwarding copies of the summons and complaint.

3.13.9 Constructive Changes

3.13.9.1 General

The incidence of constructive changes resulting from actions of SUPSHIP personnel can be used to measure the effectiveness and efficiency of SUPSHIP in performing contract administration. In addition, a constructive change may be a violation of the administrative control of funds, and the person responsible may be subject to the penalties specified for such a violation.

This section covers procedures necessary to preclude the occurrence of constructive changes, where such changes have been issued, and the procedures necessary to resolve the matters involved at the earliest practical date. FAR 43.104 provides the policy of DoD with respect to constructive changes.

3.13.9.2 Contracts Containing FAR 52.243-7, "Notification of Changes" Clause

The "Notification of Changes" clause, FAR 52.243-7, is designed to obtain prompt reporting of Government conduct that the contractor considers a change to the contract. It should be noted that, pursuant to the clause, the Government can be bound by an order given by a Government representative whom the Contracting Officer has specifically empowered to issue instructions, directions, or orders with respect to a specific limited scope of contract performance.

Supervisors are advised to familiarize themselves with the particular clauses of each contract administered and to ensure that satisfactory local procedures are implemented for proper administration of the clauses within the requisite time constraints. While the Changes clause is designed to eliminate the occurrence of constructive change orders, it cannot operate effectively unless it is properly and conscientiously administered.

Supervisors are advised to familiarize themselves with other parts and clauses that may be included in contracts containing the FAR 52.243-7.

For contracts not containing FAR 52.243-7, supervisors will reach agreement with each contractor regarding the procedures to follow by both parties when a constructive change is identified. The following are to be covered in the administrative agreement:

- The need for the contractor to notify the ACO at the earliest possible time of the receipt and substance of an alleged constructive change;
- The fact that the contractor is not to comply with any written or oral communications considered to be a change in the contract requirements which are not otherwise designated in writing by the Contracting Officer as a change order;
- The format and supporting documentation to be submitted by the contractor identifying and reporting the occurrence of alleged constructive changes;
- The rapid response procedure that is to be established by the Supervisor to ensure timely response to the contractor; and
- The limits of the ACO's authority with respect to the issuance of a contract modification, when it is determined that a constructive change has in fact occurred, and for which a formal modification pursuant to the Changes clause is in order.

Any supplemental agreement entered into pursuant to the Changes clause will include the costs of delay or disruption attributable to the change and appropriate release language.

3.13.9.2.1 FAR 43.204 Equitable Adjustments: Waiver and Release of Claims

The Equitable Adjustments clause (DFARS 52.243-7002) provides, in part, that when a request for equitable adjustment is submitted under the Changes clause, it is to include all types of adjustments in the total amounts to which the Changes clause entitles the contractor, including, but not limited to, adjustments arising out of delays or disruptions caused by such changes. The clause also provides that, if required by the Contracting Officer, the supplemental agreement setting forth such equitable adjustment will include a release discharging the Government and its officers, agents, and employees from any further claims arising out of delays or disruptions caused by such changes. The foregoing release language will be included in each supplemental agreement establishing the equitable adjustment of the price and time of performance with respect to a change.

3.13.9.3 SUPSHIP Procedures and Reports

For processing constructive changes, local instructions and procedures will be prepared and issued to ensure that the regulatory requirements are met. Copies of the local instructions and procedures, and all revisions thereto, will be submitted to NAVSEA 04Z and NAVSEA 02.

The following are matters to consider in preparing the local instructions and procedures:

- Occurrence of a constructive change is to be treated as a serious action similar to a violation of the administrative control of funds.

- SUPSHIP personnel should be thoroughly briefed on the requirements of this chapter, with emphasis on the limitation of their authority to direct the contractor to perform work.

- A follow-up procedure is to be established to ensure timely replies for SUPSHIP correspondence to NAVSEA, contractors, and other organizations when such correspondence requires action by them, and when delays could result in a constructive change if correspondence is not promptly answered. The follow-up procedure should include provisions for obtaining the assistance of NAVSEA 04Z when NAVSEA replies have been unduly delayed.

- Reports are to be submitted by the head of a department to the Supervisor when personnel of the department are responsible for a constructive change. The penalties to be recommended in the report should be similar to those which would be imposed for a violation of the administrative control of funds. The report should contain a complete explanation of the circumstances that led to the constructive change, the status of the vessels for which the constructive change is applicable, and an estimate of cost for the change.

- It is required that the contracts officer and legal counsel, when assigned to the SUPSHIP office, concur with controversial correspondence to the contractor not signed by a Contracting Officer. SUPSHIP personnel are not required to report

failure of visiting personnel to send standard visit request letters prior to the visit, but will be responsible for the preparation of reports delineating the status of any unresolved problems, agreements made, and dates requested from the contractor.

- It is required that constructive changes be resolved as soon as is practical. In no case is a constructive change to be held for resolution as part of an overall claim under the contract or for resolution as part of final settlement, unless approved by NAVSEA.

Local procedures for the processing of nucleus crew deficiency reports to identify operational deficiencies will be developed and agreed to by all parties involved (i.e., the SUPSHIP, PCO, and contractor). The definition of operational deficiency will be developed by the SUPSHIP and the ship's crew. Where such procedures do not exist, all noted deficiencies will be prescreened by the SUPSHIP. Items noted during inspection which require alterations to ship design (potential constructive changes) will be prescreened by the SUPSHIP prior to transmittal to the contractor. Nucleus crews will be briefed on local procedures which govern the processing of deficiency reports. The procedures should provide for coordination with the inspections of the SUPSHIP's QA personnel and use the Quality Deficiency Record (QDR) reporting system described in Chapter 9, “Contract Administration Quality Assurance Program.”

3.13.9.4 SUPSHIP Authority to Formalize Identified Constructive Changes

Except for contracts containing FAR 52.243-7, the SUPSHIP may recognize an identified constructive change and prepare and approve a covering Field Modification Request (FMR) only when all of the following prerequisites have been met:

- The change is within the Engineering Change Proposal (ECP) approval authority and FMR issuance authority of SUPSHIP;
- The constructive change is the responsibility of a person in the SUPSHIP office;
- Reporting procedures have been complied with by the appropriate head of the department;
- Funds for reservation purposes are available in SUPSHIP in the amount of the estimated cost of the change; and
- The work is actually beyond the contract requirements and resulted in a benefit to the Government, and the contractor did not perform work voluntarily.

In general, it must be work that would have been authorized by a contract change if proper procedures had been followed. Only the person(s) designated in writing may approve the change and the issuance of an FMR.

If the contract contains the FAR 52.243-7 Notification of Changes clause, the contractor is required to notify the Contracting Officer of the issuance of the constructive change and,

other than in a situation described in the clause, is not to proceed with the change unless and until the Contracting Officer has responded to such notice in accordance with the clause. The authority to approve and issue an FMR in such a situation is the same as for ECPs. In addition, any prerequisite listed above applies to determinations under this section.

3.13.9.5 Processing Identified Constructive Changes

When a constructive change has been identified, it will be processed in the format and in accordance with the procedures required for ECPs, unless such procedures hinder the requisite expeditious processing of the constructive changes or conflict with the stated time requirements of specific contract clauses for response to such changes.

3.14 Release of Performance Reserves

After delivery of a ship, the contractor may request release of performance reserves. The contractor's request should include the following information, as applicable:

a. List of contractor-responsible incomplete work and estimated completion dates;

b. List of deficiencies and estimated completion dates;

c. List of guaranty items; and

d. Endorsement by SUPSHIP to NAVSEA which will comment on the contractor's letter, supplementing the letter with status of incomplete work, deficiencies, guaranty items, and adjustments in price made or anticipated.

3.15 Contract Terminations

Terminations may be either a Termination for Convenience or a Termination for Default, depending on the nature of the termination. A contract may be terminated for convenience for any reason that the Contracting Officer determines would be in the best interest of the Government. Terminations for Default are also performed when it is in the Government's best interest, but the reason for the termination is based on the contractor's actual or anticipated failure to perform contractual obligations.

3.15.1 Authority to Terminate

Although FAR Part 49 grants Contracting Officers the authority to suspend or terminate contracts when it is in the Government's interest, NCH 49.101 does not authorize SUPSHIP Contracting Officers to terminate completely or partially any new construction or ship repair contract. All determinations for default, cure notices, and show cause letters must be approved by NAVSEA 02/02B. ACO authority to terminate a ship repair contract requires NAVSEA 024 concurrence prior to a termination for convenience (whole or in part) action, and NAVSEA 02 approval for termination for default action.

The ACO may terminate for convenience, with approval of the CCO, locally issued job orders. NAVSEA 02 Division Director or FPO CCO approval is required prior to partial or complete termination for convenience on non-major program contracts.

3.15.2 Extent of Termination

Terminations can be either partial or complete. A partial termination means the termination of a part, but not all, of the work that has not been completed and accepted under the contract. A complete termination means the termination of all of the work that has not been completed and accepted under the contract.

3.15.3 Effect of Termination

Terminations are very serious matters. Depending on factors such as the dollar amount of the contract, the contractor's financial condition, and the availability of other work to the contractor, a termination can severely impact a contractor's financial condition or even drive the contractor into bankruptcy and out of business. The contractor is not the only one hurt, however, as the contractor must terminate any subcontractors under the contract. Furthermore, the contractor must lay off employees unless the contractor has other work to assign to employees working on the terminated contract. Such circumstances frequently result in political involvement.

3.15.4 Termination Contracting Officer

After the Contracting Officer has issued a notice of termination, a Termination Contracting Officer shall be assigned to handle the termination actions. FAR Part 49 details the duties and responsibilities of the Termination Contracting Officer.

3.16 Insurance

3.16.1.1 Introduction

Although this section describes the types of insurance routinely required for fixed-price and cost-reimbursable contracts, the only insurance coverage required of the contractor are those specified by each contract. In accordance with FAR 28.311-2, agencies are permitted to develop their own solicitation provisions and contract clauses to implement the basic policies contained in FAR 28.3.

In general, there are two types of insurance coverage. The first covers loss, damage, or destruction to the vessel, its equipment, or materials; the second covers third party and collision, protection, and indemnity liabilities.

This section describes typical insurance coverage provided by fixed-price and cost-reimbursable contracts. In all cases, however, the type of insurance coverage required of the contractor is specified by the contract. It is essential to remember that insurance claims are different from contract claims. Specifically, insurance claims:

- Require direct physical damage to vessel from external cause.
- Exclude delay, disruption, faulty workmanship and materials, cost of sea trials, and consequential damages.
- Exclude fixed overhead.
- Exclude overtime, unless authorized.
- Exclude cost of money.
- Can pay negotiated profit influenced by degree of contractor fault and based upon profit of all yard work.
- Do not allow for reimbursement to be based on estimates, but on return costs for labor performed and bills paid for material.
- Can settle outside contract price (targets).
- Do not allow for deductibles to be a contract cost.

3.16.1.2 Shipbuilding Fixed-Price Contracts

3.16.1.2.1 Builder's Risk Policy

Under vessel fixed-price contracts, the Government customarily assumes the same risk of loss or damage as would have been assumed by private insurance underwriters had the contractor obtained and maintained marine builders risk insurance. This risk is subject to a deductible as identified in the contract. The risk is assumed by the Government with respect to the vessel itself, Government-Furnished Material (GFM) and equipment, and all Contractor-Furnished Material (CFM) and equipment to which the Government has title under the provisions of the contract.

Government assumption of property damage risks under vessel fixed-price contracts replaces property insurance coverage that would normally be provided by the contractor. Because the Navy assumes specified risks (except to the extent of the deductible), the contractor will not carry insurance for loss of or damage to the vessel or contract property, Government-furnished or contractor-acquired, to which the Government has title, unless the Navy directs the contractor in writing to acquire available insurance.

Although the contractor is protected regarding the damages caused by defective workmanship or material, no such protection is afforded for the costs of correcting the defective workmanship itself. Specifically, the Government will not pay for any costs of the contractor for the inspection, repair, replacement, or renewal of any defects in the vessel or such materials and equipment due to defective workmanship or defective materials or equipment performed by or furnished by the contractor or its subcontractors, or

workmanship, materials, or equipment performed by or furnished by the contractor or its subcontractors which does not conform to the requirements of the contract.

3.16.1.2.2 Collision Liability and Protection and Indemnity Liabilities Insurance

The Government Syndicate Form Collision Liability and Protection and Indemnity Liabilities insurance addresses contractor liabilities resulting from collision of the ship with any other ship or craft. This insurance also provides liability protection against damage to structures (e.g., piers, wharves, and stages). Liabilities for personal injuries and death (excluding contractor's employees) caused by collision are covered at launching, after the ship is fully waterborne, and during trial and delivery trips.

In general, vessel contracts require the contractor to procure and maintain, within the contract price, Government Syndicate Form Collision Liability and Protection and Indemnity Liabilities insurance with respect to each ship. This insurance must be obtained in an amount equal to the lesser of 80 percent of the sum of the contract price of the ship and the value of applicable GFM as estimated by the Navy, or $2 million. In excess of these limitations, the Government assumes the obligation of indemnifying the contractor for liabilities to third parties within the scope of the policy.

Under the clause entitled "Additional Insurance Provisions (FT) (Jan 90)," which is invoked in fixed-price shipbuilding contracts, the contractor is directed that Collision Liability and Protection and Indemnity Liabilities insurance is not required during underway trials.

3.16.1.2.3 Boat Building Fixed-Price Contracts

Fixed-price boat contracts normally include provisions that require the contractor to maintain insurance at the contractor's expense for damage to or loss of boats, including both Government-furnished and contractor-furnished material. These provisions are designed to ensure protection of the Government's interests. The amount of the insurance is required to be no less than the sum of the aggregate payments made by the Government against the contract price plus the value of GFM, as periodically determined by the Contracting Officer.

The contractor is required to procure the physical damage policies jointly in the name of the contractor and the name of the United States. Losses must be payable to the order of the Secretary of the Navy for the use of the United States to the extent of the Government's payments against the contract price plus the amount of loss of or damage to GFM, and for the contractor's use to the extent of the balance. In addition, the contract provides that the policy terms and the insurance companies selected are to be satisfactory to the Navy.

3.16.1.3 Shipbuilding Cost-Reimbursable Contracts

3.16.1.3.1 Loss or Damage to Government Property

Unlike fixed-price shipbuilding contracts when loss, damage, or destruction to Government property is covered under the "Insurance" clause and a deductible amount applies, the contractor's responsibility for loss, damage, or destruction to Government property under

cost-reimbursable contracts is primarily covered by the "Government Property" clause and there is no deductible. This clause provides that the contractor will not receive reimbursement for, and is not to include as an item of overhead, the cost of insurance or any reserve covering the risk of, loss of, or damage to Government property, unless the Government has required the contractor to carry such insurance under other provisions of the contract. Government property under cost-reimbursable contracts includes Government-furnished property and all property purchased by the contractor for which the contractor is entitled to be reimbursed as a direct item of cost under the contract.

Under cost-reimbursable contracts, the Government generally reimburses the contractor for loss of or damage to Government property as an item of allowable costs. The contractor is responsible for loss or damage in certain situations, however, such as loss or damage resulting from willful misconduct or lack of good faith of the contractor's directors or officers and other managerial personnel as defined in the clause. The contractor is also responsible in the event of willful misconduct or lack of good faith to establish and administer a program for repair, protection, preservation, control, use, and maintenance of the property. As is the case in where the Government has assumed the risk of loss, the Government does not reimburse the contractor if the damage is in fact covered by insurance or if the contractor is otherwise compensated for the damage.

3.16.1.3.2 Collision Liability and Protection and Indemnity Liabilities Insurance and Third Party Liabilities

In its “Insurance Property Loss or Damage Liability to Third Persons" clause, NAVSEA adds the requirement that the contractor procure Collision Liability and Protection and Indemnity Liabilities insurance. This insurance is required in the same amount as under fixed-price contracts (i.e., 80 percent of the sum of the contract price and the value of GFM, or $2 million, whichever is less). This insurance applies at and after the time the ship becomes waterborne and is subject to the same restrictions and limitations.

The FAR clause provides for reimbursement to the contractor "for that portion of the reasonable cost of insurance allocable to this contract". To the extent allocable to and arising out of contract performance and subject to the availability of funds, the contractor is also reimbursed for liabilities to third parties (as represented by a final judgment or approved settlement) for personal injury, death, or loss of or damage to the property of others that is not in the contractor's possession. These third party liabilities will be reimbursed whether or not the liabilities result from negligence of the contractor. The liabilities will not be reimbursed by the Government if:

- contractor is otherwise responsible under particular contract clauses
- liabilities are the result of willful misconduct or lack of good faith on the part of contractor managerial personnel as defined in the clause
- contractor is compensated for them by insurance or otherwise
- contractor has failed to insure or maintain insurance as required by the contract

With regard to Collision Liability and Protection and Indemnity Liabilities risks, these provisions of the clause have the effect of obligating the Government to indemnify the contractor for liabilities in excess of the limitations of the insurance coverage, as in the case of fixed-price vessel contracts.

3.16.1.4 Administration of Insurance Requirements

3.16.1.4.1 Responsibilities of Deputy Assistant Secretary of the Navy (DASN) – Acquisition and Logistics Management (A&LM)

DASN (A&LM) is available to contracting activities to provide guidance on insurance matters and is authorized by direction of the Secretary of the Navy, or the duly authorized representative of the head of a contracting activity, the Contracting Officer, or any other naval official designated in such a contract, to do the following:

- Require or approve insurance when a contract provides that a contractor will procure such insurance;
- Execute, sign, or endorse in the name of, and by direction of the Secretary of the Navy, any and all lost policy releases, proofs of loss, subrogation agreements, endorsements of policies for claims or return premiums, payment orders, and insurance drafts made payable to the Secretary of the Navy and not affecting the obligating of appropriations;
- For risk pooling arrangements, confirm to the cognizant activity the amount of premium due and, if the funds allocated to the contract are not sufficient, the amount due shall be paid as an item of cost under the contract out of other appropriated funds; and
- Advise and recommend to the Secretary of the Navy or other authorized interested officials of the Navy Department regarding insurance drafts that affect the obligating of appropriations and assignment, in order to assure payment of premiums found to be due after the completion of a contract.

NAVSEA determines, under the applicable Marine Builder's Risk policy of any shipbuilding contract, whether or not the Government has assumed the risk of loss and the extent of any Government responsibility with regard to contractor's claims. DASN (A&LM) should be consulted if any assistance is required in determining Government responsibility. All matters concerning self-insurance covering any kind of risk will be submitted to the ASN (RD&A) - ABM.

3.16.1.4.2 Authority of SUPSHIPs

Per NCH 28.301, offices with legal counsel are authorized to process and approve insurance claims without limitation, subject to business clearance thresholds.

3.16.1.4.3 PCO/SUPSHIP ACO Responsibilities

NCH 28.301 assigns responsibility to the PCO or SUPSHIP for:

- Establishing and maintaining contractor insurance records
- Ensuring the contractor maintains qualifying insurance under the annual PL. 85-804 SECNAV Determination or individual authorization (see FAR 50.103)
- Establishing and maintaining adequate contract records of contractor claims when the Government assumes the risk or indemnifies the contractor under the contract, analyzing such claims to ascertain patterns of neglect or misconduct, and calling such matters to the attention of the contractor
- Taking action on insurance as directed by NAVSEA
- Ensuring that contract modifications for repairs to GFM are not issued when the need for corrective action results from damages of an insurance nature
- Ensuring that the contractor submits an insurance claim in writing for loss or damage

All SUPSHIPs will take the following actions for loss or damage that may be the subject of an insurance claim:

- Assure such loss or damage is reported by the contractor in writing to the ACO.
- The ACO is responsible for recording and accomplishing the following:
    - contractor's name and contract number
    - Navy classification symbol and hull number, if appropriate (not the contractor's hull number)
    - claim number or job order number
    - date of occurrence
    - full description of accident, damage, or the event causing damage
    - details of the estimated or actual costs of repair or replacement
    - comments about the contractor’s responsibility for the loss, such as willful misconduct, damages to material when in the possession of a subcontractor, or statements supporting contentions that the damages were not accidental; and discussions of mitigating circumstances concerning the responsibility of either party
    - comments about Government liability for any future claims
    - ACO comments to the extent of the contractor's entitlement

3.16.1.4.4 Notification of Legal Action Against the Contractor

As required by the insurance clause(s) of job orders or contracts, a contractor will immediately, or as soon as practical, notify the ACO of any legal action filed against the contractor if the legal action arises out of the performance of the contract and if the cost may be reimbursable, the risk is uninsured, or the amount claimed is in excess of the amount of insurance coverage. The ACO will then direct the contractor to immediately furnish copies of all pertinent papers received in connection with the claim, if not provided with the contractor's notification. The ACO will also promptly notify the NAVSEA Contracting Officer and NAVSEA counsel of any such legal actions filed against the contractor and forward copies of all papers and statements of available facts concerning any action resulting from bodily injury, death, or property damage and involving a member of the public or any employee of the contractor or subcontractor.

3.16.1.4.5 Procedures for Treating Claims by Third Parties Under Navy Contracts Providing for Assumption of Risk by the Government

The following procedure will be followed in making all payments for the contract provisions prescribed in FAR and DFARS under which the Government assumes the risk of liability to third persons. This procedure applies only to the cases of liability to third persons not compensated by insurance or otherwise.

When a claim is made by a third person for loss of or damage to property, death, or bodily injury not compensated by insurance or otherwise arising out of performance of a contract, the investigating officer will submit to the contracting activity cognizant over the contract, all statements, pertinent facts, recommendations of the contractor, and recommendations of the investigating officer related to the claim. The amount, if any, to be paid in discharge will also be submitted. The contracting activity will promptly forward these statements with any of its recommendations to ASN (RD&A) – AM to determine whether the Government has assumed liability for such claim and, if so, the amount to be paid to the person in discharge of the claim.

If the ASN (RD&A) - AM determines that the Government has assumed the liability for the claim of a third person arising out of performance of a contract, such third person will be paid the amount fixed by the ASN (RD&A) - AM. If the ASN (RD&A) - ABM determines that the Government did not assume such liability, no payment by the Government will be made; if appealed by the contractor under the "Disputes" clause, a different decision will be considered.

3.16.1.4.6 Liability of Subcontractors

Subcontractor liability is discussed in the following sections.

3.16.1.4.6.1 Deductibles Under Incentive Contracts

Paragraph (c) of the Special Provisions Clause, entitled “Insurance Property Loss or Damage Liability to Third Persons," provides that payments for insurance claims are outside the scope of and will not affect the pricing structure of the contract.

The “Incentive Price Revision" clauses of the contracts explicitly exclude from incurred costs, for purposes of negotiating the total final cost or establishing the total final price, any amounts reimbursed to the contractor for paragraph (e) of the “insurance" clause.

In view of the preceding, the adjudicating SF 30 should reflect a firm-fixed price with no change in contract targets. The SF 30 ought to reflect the amount of cost included in the price. Such cost is the amount that the contractor should exclude from incurred costs for incentive price revision purposes. (Sample language should be as follows: "Furthermore, this modification results in no change to the Contract Targets, and the payment described herein will not be included in the total final cost negotiated or in the total final price established in accordance with Clause J4 entitled ‘Incentive Price Revision (Firm Target)’.”)

At times the Government makes repairs to damage covered under the “insurance" clause. If the contractor or a third party makes the repair, then the contractor is responsible for paying the cost of the repair up to the deductible. When the Government does the repair work, then the contractor should pay the Government for doing the work up to the amount of the deductible.

Although the previous section describes a specific regulatory requirement, SUPSHIPs are cautioned that shipbuilding contracts may be written so that the Government could have title and be liable for property at a subcontractor's facility.

3.16.1.4.6.2 Nuclear and Ultra-Hazardous Risk Indemnity

Under both cost-reimbursement and fixed-price contracts, the Government may agree to indemnify the contractor against claims arising from bodily injury sustained by employees or others or arising from loss of, damage to, or loss of use of the contractor's own, the Government's, or a third party's property. The agreement to indemnify is limited to claims arising from performance of the contract and from unusually hazardous risks as defined in the contract. The indemnity may also be written to cover nuclear risks not considered unusually hazardous through appropriate modification of the indemnity clause.

Although the statutory basis for extending such indemnity to contractors are different for research and development contracts, as opposed to contracts for other than research and development, the limits and conditions of the indemnity agreement are very similar. Contracts for vessel and boat construction will ordinarily be classified as other than research and development, and extension of such indemnity will be governed by FAR 50.104-3.

The provisions of the indemnity agreement are similar for both cost-reimbursement and fixed-price contracts. Both provide exceptions to the operation of the indemnity agreement where the claim results from willful misconduct or lack of good faith on the part of the contractor’s chief officials. Another exception covers liabilities for which the contractor is compensated, or is entitled to be compensated, by insurance or otherwise.

Because the Government may ultimately bear the loss under such indemnity agreements, it is extremely important that the contractor notify SUPSHIP immediately upon occurrence of any such incident within the scope of the indemnity agreement. SUPSHIP will promptly provide the notification as required by section 3.16.1.4.4 of this chapter.

Appendix 3-A: Acronyms

AAR	Audit Advisory Report
ABR	Agreement for Boat Repair
ACO	Administrative Contracting Officer
ADR	Alternative Dispute Resolution
ASBCA	Armed Services Board of Contract Appeals
ASN(RD&A)ABM	Assistant Secretary of the Navy (Research, Development and Acquisition) Acquisition Business Management
AT	Acceptance Trials
BOA	Basic Ordering Agreement
BVC	Best Value Contracting
CAO	Contract Administration Office
CAP	Contractor Acquired Property
CAS	Contract Administration Services
CCO	Chief of the Contracting Officer
CDA	Contract Disputes Act
CFM	Contractor Furnished Material
CO	Commanding Officer
COFD	Contracting Officer’s Final Decision
COMNAVSEASYSCOM	Commander, Naval Sea Systems Command
COR	Contracting Officer’s Representative
CPAF	Cost Plus Award Fee
CPARS	Contractor Performance Assessment Reporting System
CPFF	Cost Plus Fixed Fee

CPIF	Cost Plus Incentive Fee
CPSR	Contractor Purchasing System Review
CTE	Claims Team Engineer
CTM	Claims Team Manager
DASN(A&LM)	Deputy Assistant Secretary of the Navy (Acquisition and Logistics Management)
DAWIA	Defense Acquisition Workforce Improvement Act
DCAA	Defense Contract Audit Agency
DCMA	Defense Contract Management Agency
DD Form	Department of Defense Form
DFARS	Defense Federal Acquisition Supplement
DFARS PGI	DFARS Procedures, Guidance and Information
DFAS EDA	Defense Finance and Accounting Service Electronic Document Access
DoD	Department of Defense
DoDD	Department of Defense Directive
DoN	Department of the Navy
ECP	Engineering Change Proposal
eSRS	Electronic Subcontractor Reporting System
EVMS	Earned Value Management System
FAR	Federal Acquisition Regulations
FASA	Federal Acquisition Streamlining Act
FCT	Final Contract Trials
FFP	Firm Fixed Price
FMR	Field Modification Request
FMS	Foreign Military Sales

FPI	Fixed Price Incentive
FPO	Field Procurement Offices
FPRA	Forward Pricing Rate Agreement
FSS	Federal Supply System
GAO	General Accountability Office
GENSPECs	General Specifications for Ships
GFI	Government Furnished Information
GFM	Government Furnished Material
GFP	Government Furnished Property
GPPR	Government Property Problem Report
HASC	House Armed Services Committee
HCA	Head of the Contracting Activity
HMR	Headquarters Modification Request
HUBZone	Historically Underutilized Business Zone
IDIQ	Indefinite Delivery/Indefinite Quantity
IFB	Invitation for Bid
INSURV	Board of Inspection and Survey
IPT	Integrated Product Team
JFFM	Joint Fleet Maintenance Manual
LOA	Letter of Agreement
MAC	Multiple Award Contract
MARAV	Master Agreement for Repair and Alteration of Vessels
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding

MS/MO	Multi-Ship/Multi-Option
MSRA	Master Ship Repair Agreement
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction
NAVSHIPSO	Naval Sea Systems Command (NAVSEA) Shipbuilding Support Office
NCH	Naval Sea System Command (NAVSEA) Contracts Handbook
NMCARS	Navy and Marine Corps Acquisition Regulation Supplement
OFPP	Office of Federal Procurement Policy
OMB	Office of Management and Budget
OSN	Office of the Secretary of the Navy
PCO	Procuring Contracting Officer
PL	Public Law
PMR	Program Manager Representative
POP	Period of Performance
PPMAP	Procurement Performance Management Assessment Plan
PSA	Post Shakedown Availability
QA	Quality Assurance
QDR	Quality Deficiency Record
REA	Request for Equitable Adjustment
RFP	Request for Proposal
RMC	Regional Maintenance Center
SADBU	Small and Disadvantaged Business Utilization Program
SASC	Senate Armed Services Committee
SBA	Small Business Administration

SBP	Small Business Program
SECDEF	Secretary of Defense
SECNAVINST	Secretary of Navy Instruction
SOM	SUPSHIP Operations Manual
SPS	Standard Procurement System
SSA	Source Selection Authority
SSEB	Source Selection Evaluation Board
SUPSHIP	Supervisor of Shipbuilding, Conversion and Repair, USN
TAR	Technical Advisory Report
TCO	Termination Contracting Officer
TYCOM	Type Commander
UCF	Uniform Contract Format
UPSA	Unpriced Supplemental Agreement
USC	United States Code

Chapter 4 – Financial Management

Table of Contents

4.1 Financial Management 4-4

4.2 Responsibilities 4-4
4.2.1 Commanding Officer 4-4
4.2.1.1 Actions 4-5
4.2.2 Comptroller 4-5
4.2.3 Funds Administrators 4-7

4.3 Fiscal Law and Regulations 4-7
4.3.1 Purpose, Time and Amount 4-7
4.3.2 Violation Reporting 4-8
4.3.3 Funding Violation Penalties 4-9

4.4 Types of Appropriations 4-9
4.4.1 Appropriations 4-9
4.4.1.1 Operations & Maintenance, Navy (O&MN) 4-9
4.4.1.2 Operations & Maintenance, Naval Reserve (O&MNR) 4-9
4.4.1.3 Shipbuilding and Conversion, Navy (SCN) 4-10
4.4.1.4 Weapons Procurement, Navy (WPN) 4-10
4.4.1.5 Other Procurement, Navy (OPN) 4-10
4.4.1.6 Research, Development, Test and Evaluation (RDT&E) 4-10
4.4.1.7 Navy Working Capital Fund (NWCF) 4-11

4.5 Budgeting and Accounting 4-11
4.5.1 SUPSHIP Mission Budgets 4-11
4.5.2 The Standard Accounting and Reporting Systems (STARS) 4-12

4.6 Funds Provided to SUPSHIPs 4-13
4.6.1 SUPSHIP Mission Funds 4-13
4.6.2 Ship Construction Funds 4-13
4.6.3 Foreign Military Sales (FMS) Funds 4-13
4.6.4 Ship Repair Funds 4-14
4.6.5 Fleet Modernization Program (FMP) Funds 4-14
4.6.6 Berthing Funds 4-14
4.6.7 Commander Naval Installations (CNI) Funds 4-16
4.6.8 Environmental Compliance Oversight Funds 4-16

4.7 Funding Methods 4-16
4.7.1 Operating Budgets (OB) 4-16
4.7.2 Technical Operating Budgets (TOBs) 4-16
4.7.3 Reimbursable Orders 4-17

4.7.3.1 Policy 4-17
4.7.3.2 Types of Reimbursable Orders 4-18
4.7.3.2.1 Project Order (PO) 4-18
4.7.3.2.2 Economy Act Order (EAO) 4-18
4.7.4 Military Interdepartmental Purchase Request (MIPR) 4-19
4.7.5 Direct Citations 4-19
4.7.6 Letters of Authority (LOA) 4-19

4.8 General Classifications of Funds Transactions 4-20

4.9 Prompt Payment Act, 5 CFR 1315 4-21
4.9.1 Usual Reasons for Late Payment 4-21
4.9.2 Progress Payments and Prompt Payment Requirements 4-22

4.10 Reports 4-22
4.10.1 CIVPERS Reports 4-22
4.10.1.1 Full Time Equivalent (FTE) Report 4-22
4.10.1.2 SUPSHIP Monthly Attrition Report 4-22
4.10.1.3 SUPSHIP Monthly Accretion Report 4-22
4.10.1.4 Bi-Weekly SUPSHIP Hiring Status Report 4-22
4.10.2 Funds Status Report 4-23
4.10.2.1 SUPSHIP EOB Monthly Fund Status Report 4-23

Appendix 4-A: Acronyms 4-25

References

(a) SECNAVINST 7000.27B, Comptroller Organizations

(b) SECNAVINST 5200.35F, DoN Managers' Internal Control (MIC) Program

(c) DoD Directive 7000.14-R, Financial Management Regulation

(d) 31 USC 3528

(e) Public Law 104-106 Section 913

(f) 31 USC 1301(a), Application

(g) 31 USC 1502, Balances Available

(h) 31 USC 1341, Limitations on Expending and Obligating Amounts

(i) 31 USC 1342, Limitation on Voluntary Services

(j) 31 USC 1517, Prohibited Obligations and Expenditures

(k) 31 USC 1349

(l) 31 USC 1350

(m) 31 USC 1518

(n) 31 USC 1519

(o) NAVSO-P 1000, DoN Financial Policy Manual

(p) NAVSO P-3006

(q) Assistant Secretary of the Navy, (Financial Management and Comptroller) (ASN(FM&C)) memo dated 3 May 2002

(r) NAVSEAINST 5450.36B, Mission, Functions and Tasks of the Supervisors of Shipbuilding, Conversion, and Repair, USN

(s) 41 USC 23

(t) 31 USC 1535

(u) Public Law 104-134, Debt Collection Improvement Act of 1996

(v) 5 CFR 1315, Prompt Payment Act, PL 97-177

Figures

Figure 4-1. SUPSHIP Task Funding Decision Tree 4-24

Chapter 4 – Financial Management

4.1 Financial Management

A command's program for the proper administration of funds is an integral part of effective management. There are specific responsibilities associated with managing public funds which go to the highest levels of SUPSHIP organizations. The goal of this chapter is to explain the importance of proper financial management within the SUPSHIPs and with their customers. For the Department of the Navy, SECNAVINST 7000.27B (Comptroller Organizations), reference (a), is the authority and provides the guidance for the establishment, periodic reviews and approval of comptroller organizations. This directive assigns responsibility to the commanding officer for ensuring the command has a financial management organization capable of proper and effective administration of funds complying with applicable laws, regulations, policies, procedures, and sound financial practices.

Key to achieving this objective is an understanding of the integration of budgeting, accounting and performance measurement while adhering to the legislative requirements for financial management in the federal government.

4.2 Responsibilities

4.2.1 Commanding Officer

The responsibility for the administration of all authorizations of funds granted to the commanding officer cannot be delegated in whole or in part within the command. The Supervisor of Shipbuilding, as the SUPSHIP commanding officer, is legally responsible and accountable for the financial integrity of the SUPSHIP. This requires establishing and maintaining internal control systems to ensure that:

- All available funds are identified, controlled and recorded in the official accounting records from the time received until subdivided to others or obligated and expended.
- All available funds are identified with authorized purposes by account and period of availability for new obligations and period of availability for expenditures.
- All special and recurring provisions and limitations on the obligation and expenditure of funds are identified and documented for all available funds and accounts.
- All proposed obligations of funds are reviewed to ensure that sufficient funds are available to cover the obligations, that the purpose of the obligations is consistent with the authorized purposes of the funds or accounts, and that the obligation does not violate any special or recurring provisions and limitations on the incurrence of obligations.

The proper stewardship of Federal resources is a fundamental responsibility of command. These internal control requirements apply to all appropriations and funds provided to the

command. Further guidance can be found in reference (b), SECNAVINST 5200.35F (DoN Managers' Internal Control (MIC) Program).

4.2.1.1 Actions

Commanding officers are obligated to take all necessary actions to establish accountability and enhance the administrative control of funds, including:

- Hiring a qualified comptroller and establishing an organizational structure which provides unfettered access and a direct reporting chain from the comptroller to the commanding officer.
- Establishing and maintaining adequate fiscal controls to prevent the over-authorization, over-commitment, over-obligation, or over-expenditure of funds made available to the activity. Prompt reporting of any violation is also required.
- Issuing an activity instruction providing for the authority, responsibility and procedures required in the administrative control of funds.
- Delegating funds administration authority to individuals at the appropriate level to ensure that the individuals are personally aware of the necessary detail to establish total accountability. Funds administrators should be in a position that enables them to provide absolute technical input to funds control. Overall financial management remains the responsibility of the activity comptroller.
- Ensuring that subordinates delegated the authority to act as funds administrators are authorized in writing, by name, clearly specifying the extent of the authority.
- Ensuring that delegated funds administrators are familiar with the statutory responsibilities inherent in the administration of funds.

4.2.2 Comptroller

The Comptroller is the senior person in the SUPSHIP finance office and the chief financial advisor to the Supervisor. Responsibility for the command's financial management and integrity is inherent in this position. The Comptroller shall ensure that the requirements of Department of Defense (DoD) Financial Management Regulation (FMR) 7000.14-R, reference (c), are met. In addition, the Comptroller will establish a system of internal controls to ensure all government resources are used efficiently and effectively to achieve intended program results in a way that is consistent with applicable laws and regulations and minimizes the potential for waste, fraud and mismanagement.

As referenced in enclosure (1) of SECNAVINST 7000.27B, the comptroller organization has overall responsibility for financial management in five major functional areas:

- **Budget Formulation** includes those actions performed in development, review, justification, and presentation of the budget estimates and requires the organization to consider expected demand and the resources required to meet that demand. The focus is on prioritizing these requirements and requesting adequate resources to achieve the highest priorities in each year. It also creates a baseline against which actual results can be compared.

- **Budget Execution** encompasses those budgetary actions required to effectively and efficiently accomplish the programs for which funds were requested and appropriated. The process must ensure that funds are administered in accordance with the law and administrative policies and regulations of higher authority.

- **Managerial Accounting** concepts and standards are aimed at providing reliable and timely information on the full cost of programs. It involves establishing accounting control over assets provided to the command and the accumulation and preparation of financial information on a regular basis for analysis and decision-making.

- **Program Analysis** is the process of identification, measurement, analysis, interpretation, and communication of financial information. This information is used by management to plan, evaluate, make decisions, and improve operational efficiency within an organization and assure appropriate use of, and accountability for, its resources.

- **Performance Measurement** is the process of tying financial data to results. It emphasizes objectively assessing operational performance and effectiveness using valid, identifiable criteria; analyzing data, information and results; identifying trends and deviations; and projecting future outcomes to guide programmatic decision-making and risk management. Because it measures progress towards achievement of goals and objectives, it is also a long-term planning tool that can justify resource allocation.

Inherent in the Comptroller's responsibilities are the requirements to ensure:

- prompt recording of authorizations, commitments and obligations in budgetary accounts;

- monitoring the recording of assets, liabilities and expenses in proprietary accounts;

- monitoring the processes of pre-validation and certification of payments;

- matching disbursements to obligations and accounts payable;

- issuing and accepting funding documents which obligate direct appropriations, working capital or customer funds;

- timely billing of costs incurred against funding documents, and the prompt matching of collections associated with those billings;

- certifying completeness and accuracy of those transactions included in financial

statements and reports prepared by the Defense Finance and Accounting Service on behalf of the activity.

4.2.3 Funds Administrators

Individuals who are delegated authority by the Supervisor to authorize, commit, obligate, and expend specific funds related to a specified authority and responsibility are agents of the Comptroller. Departmental Accountable Officials provide source information, data or service to a certifying official in support of the payment process. Examples include: employees who certify vouchers for payment, travel authorizing officials, purchase cardholders, and certification officials for time and attendance records. These officials are responsible for providing timely and accurate data to ensure that payments are supportable, legal and computed correctly. 31 USC 3528, reference (d), applies.

Certifying Officers and Departmental Accountable Officials are to be designated in writing, and are required to be familiar with their responsibilities as detailed in 31 USC 3528, reference (d), and DoD FMR Volume 5 Chapter 33, reference (c). Because they are responsible for providing technical input to financial management processes and under the 1996 legislation, Public Law 104-106 Section 913, reference (e), they “shall be pecuniarily liable for any wrong payment or over-obligation of government funds resulting from his or her negligent performance of duties.” For this reason, accountable officials must uphold the highest standards with regard to proper payments and obligations of federal funds.

4.3 Fiscal Law and Regulations

SUPSHIP funding must be administered in accordance with laws established by Congress, as well as policies and regulations promulgated by the Navy and DoD, to enforce the provisions of proper financial management. The Comptroller is the allocation holder, and with the Supervisor, ultimately responsible for establishing tight fiscal controls. The Comptroller will obtain guidance, as needed, from the NAVSEA Comptroller to resolve any questions on the interpretation of fiscal laws and regulations.

4.3.1 Purpose, Time and Amount

Purpose, Time and Amount limit the availability of budgetary resources for obligation and expenditure. The following are the laws that establish funding control requirements.

The three laws that apply to amount violations form the cornerstone of the Anti-Deficiency Act (ADA). Violations of the Purpose and Time statutes may result in an ADA violation if insufficient funds are available in the correct appropriation to rectify the error.

- **PURPOSE (Necessary Expense Doctrine):** 31 USC 1301(a), Application, reference (f), states that appropriations will be applied only to the objects for which the appropriations were made, except as otherwise provided by law. There is no requirement to report a violation of this statute. The accounting, however, must be corrected to reflect the proper funding. This accounting correction can lead to a reportable violation of the ADA if the proper funds were not available at the time of the obligation or expenditure.

- **TIME (Bona Fide Needs Rule)**: 31 USC 1502, Balances Available, reference (g), states that the balance of an appropriation or fund limited for obligation to a definite period is available only for payment of expenses properly incurred during the period of availability or to complete contracts properly made within that period of availability and obligated consistent with section 1501 of this title. However, the appropriation or fund is not available for expenditure for a period beyond the period unless otherwise authorized by law.

- **AMOUNT (ADA)**: 31 USC 1341, Limitations on Expending and Obligating Amounts, reference (h), states that an officer or employee of the United States may not make or authorize an expenditure or obligation exceeding an amount available in an appropriation or fund for the expenditure or obligation or involve the Government in any contract or other obligation for the payment of money before an appropriation is made, unless authorized by law.

- **AMOUNT (ADA)**: 31 USC 1342, Limitation on Voluntary Services, reference (i), states that no officer or employee of the United States will accept voluntary services not authorized by law, except in cases of emergency involving safety of human life or protection of property.

- **AMOUNT (ADA)**: 31 USC 1517, Prohibited Obligations and Expenditures, reference (j), states that an officer or employee of the United States may not make or authorize an expenditure or obligation exceeding an apportionment or the amount permitted by regulations prescribed.

4.3.2 Violation Reporting

When an obligation or expenditure of funds in excess of the amount available in an appropriation occurs, the violation must be reported in accordance with the Financial Management Regulation (FMR), Volume 14. If a violation occurs at the SUPSHIP level, the SUPSHIP Comptroller is obligated to notify the Supervisor of the violation within ten working days and must immediately contact SEA 04Z and SEA 01 with all relevant details. NAVSEA will conduct a preliminary investigation, to include the advice of legal counsel, to determine if a violation has occurred and the nature and scope of the violation.

Depending upon the findings and if sufficient funds exist within the appropriation at the NAVSEA headquarters level, the issue may be resolved in-house. If a violation is confirmed which cannot be resolved at the Headquarters level, the results of the preliminary review

must be submitted up the chain-of-command to the Assistant Secretary of the Navy (Financial Management and Comptroller), who will review and forward to the Undersecretary of Defense (Comptroller), who will perform a final review and determination and when necessary, prepare the letters reporting the violation to the President, the Office of Management and Budget, and Congress.

4.3.3 Funding Violation Penalties

Penalties for violation of 31 USC 1341 and 1342 are contained in 31 USC 1349, reference (k), and 31 USC 1350, reference (l), while penalties for violation of 31 USC 1517 are contained in 31 USC 1518, reference (m), and 31 USC 1519, reference (n). In both cases, violators are subject to appropriate administrative discipline including, when circumstances warrant, suspension from duty without pay or removal from office. For knowing and willful violations, the penalty is a fine of not more than $5,000, imprisonment of not more than two years, or both.

4.4 Types of Appropriations

4.4.1 Appropriations

An appropriation is the authority provided by an Act of Congress to incur obligations for specified purposes and to make payments for them out of the Treasury. The following is a brief description of the types of appropriations often encountered by SUPSHIPs. They are generally classified as either expenses or investments. Expenses are the costs incurred to operate and maintain the organization. Investments are costs that result in the acquisition of or an addition to end items. Refer to the Department of the Navy Financial Policy Manual, NAVSO-P 1000, reference (o), and the DoD FMR Volume 1 for more detailed explanations of appropriations.

4.4.1.1 Operations & Maintenance, Navy (O&MN)

O&MN funds are used for expenses, not otherwise provided for, necessary for the operation and maintenance of the Navy and Marine Corps, as authorized by law. Per the Expense/Investment criteria, equipment purchases under this appropriation are limited to a system unit price of less than $250,000. This limitation is subject to change by Congress, and the current limitation is contained in the DoD FMR, 010201. O&MN funds are available for new obligations for one fiscal year and are appropriated and authorized for use on an annual basis. This appropriation funds SUPSHIPs' operations and includes salaries, general and administrative (G&A), travel, and training costs.

4.4.1.2 Operations & Maintenance, Naval Reserve (O&MNR)

O&MNR funds are used for expenses, not otherwise provided for, necessary for the operation and maintenance, including training, organization, and administration, of the Navy Reserve; repair of facilities and equipment; hire of passenger motor vehicles; travel and

transportation; care of the dead; recruiting; procurement of services, supplies, and equipment; and communications. Equipment purchases under this appropriation are limited to a unit price of less than $250,000. O&MNR funds are available for new obligations for one fiscal year and are appropriated and authorized for use on an annual basis.

4.4.1.3 Shipbuilding and Conversion, Navy (SCN)

SCN funds are used for investments to finance the construction of new ships and conversion of existing ships, including service life extensions and nuclear refueling overhauls. Included in the SCN appropriation are hull, mechanical and electrical equipment, electronics, guns, torpedo and missile launching systems, and communications systems. It also includes plant equipment, ship outfitting and post-delivery projects, machines, and tools. This appropriation is a multi-year appropriation and normally remains available for obligation for five fiscal years or the obligation work limiting date (OWLD) of the ship under construction. The OWLD is established as 11 months following completion of fitting out the ship, and the OWLD date of the last hull in a class of ships governs when the appropriation is scheduled to expire.

4.4.1.4 Weapons Procurement, Navy (WPN)

WPN funds are used for investments to finance the procurement of missiles, torpedoes, guns, munitions, and supporting equipment, and the installation of modernization equipment. This appropriation is a multi-year appropriation and remains available for new obligations for three fiscal years.

4.4.1.5 Other Procurement, Navy (OPN)

OPN funds are used for investments to finance the procurement, production and modernization of equipment not otherwise provided for. Such equipment ranges from the latest electronic sensors to training equipment and spare parts. The system unit price of this equipment must be in excess of $250,000. This appropriation is a multi-year appropriation and remains available for obligation for three fiscal years.

4.4.1.6 Research, Development, Test and Evaluation (RDT&E)

RDT&E funds are used for expenses and investments for the development of a new system, such as basic and applied research, advanced technology development, demonstration and validation, engineering development, developmental and operational testing, and evaluation of test results. The cost of operation of dedicated research and development installations and activities are also appropriated under RDT&E. This appropriation is a multi-year appropriation and remains available for obligation for two fiscal years; however, RDT&E follows an incremental funding policy and is budgeted to cover the costs expected to be incurred during a 12-month period.

4.4.1.7 Navy Working Capital Fund (NWCF)

The Navy Working Capital Fund (NWCF) is a branch of the family of Department of Defense (DoD) Working Capital Funds. The NWCF is a revolving fund, an account or fund that relies on sales revenue rather than direct Congressional appropriations to finance its operations. It is intended to generate adequate revenue to cover the full costs of its operations, and to finance the fund's continuing operations without fiscal year limitations. A revolving fund is intended to operate on a break-even basis over time; that is, it neither makes a profit nor incurs a loss.

Navy activities financed through the NWCF perform a wide variety of functions including Supply Management, Depot Maintenance, Research and Development, Transportation, and Base Support. The NWCF continues to pursue some important efforts to improve efficiency and maximize effectiveness. Success in these endeavors is critical to ensuring that the Department of the Navy can afford both the ongoing support costs of fleet operations and the necessary reinvestment in new platforms and weapons systems. SUPSHIPs are not NWCF activities, but on occasion, may need to purchase services from or work with NWCF activities.

4.5 Budgeting and Accounting

4.5.1 SUPSHIP Mission Budgets

Funding and manpower controls evolve over time and are based on Program Objective Memorandum/Program Review (POM/PR) requests as part of the Planning, Programming, Budgeting and Execution process within DoD. This process for the SUPSHIPs begins 30 months in advance of the beginning of an execution year. The SUPSHIP Workforce Forecasting Tool - Pricing Model (SWFT-PM) is the performance and pricing model used to analyze future year requirements and will be addressed in greater detail in the future release of chapter 17 of this manual.

Annual Financial Management Plans are developed for each SUPSHIP and provided to SEA 04Z for review, consolidation and integration into Department of Navy, Office of the Secretary of Defense and President's budget submissions. The division of mission funding to each SUPSHIP is based on projected manning requirements (End Strength and Full-Time Equivalent (FTE) controls) and the amount of funding available in the execution year.

Once in the year of execution, funds are issued by NAVSEA on at least a quarterly basis on Resource Authorizations, NAVCOMPT Form 2168/1; these documents are frequently called Operating Budgets (OBs). They are tracked in both Standard Accounting and Reporting System Headquarters Claimant Modules (STARS-HCM) and STARS Field Level (STARS-FL). Each SUPSHIP has STARS-HCM and STARS-FL capabilities.

SUPSHIPs must review budget requirements quarterly. Requests for adjustments (increases and decreases) in a quarterly cash allocation or the annual planning amount must

reach NAVSEA by the 15th day of the month before the beginning of the ensuing quarter. In addition, NAVSEA 04Z will conduct a mid-year review of the SUPSHIP OB during the January-March timeframe. SUPSHIPs will provide funding shortfalls with detailed justification to SEA 04Z for inclusion in NAVSEA mid-year review requests.

4.5.2 The Standard Accounting and Reporting Systems (STARS)

STARS is the official accounting system for most Navy organizations, including NAVSEA. The SUPSHIPs have access and use both the STARS-HCM and the STARS-FL modules to maintain accounting and general ledger data. The use of STARS provides accurate, detailed, and timely information to financial managers at various levels with the visibility necessary to execute original programs. STARS allows headquarters and field activity users to have immediate access to program information. STARS was designed to include a budget execution phase and allows financial managers, other Systems Commands (SYSCOMs), and other budget review levels access to actual progress against approved budget line items.

As the NAVSEA comptroller distributes funds to various financial managers, the transactions are recorded in STARS-HCM. Financial managers may issue funds usage documents or provide funds to other financial managers through the NAVSEA comptroller. One method for providing funds to financial managers is through the issuance of a Project Directive (PD), broken down by line item (PDLI), which is recorded in STARS-HCM and provides funds availability to the recipient activity. The current funds level of a PDLI cannot be exceeded if that PDLI has been assigned a line item limit indicator. As each accounting transaction is recorded in STARS-HCM, all related programs are concurrently updated.

SUPSHIPs perform local accounting in STARS and are responsible for:

- recording commitment and obligation transactions in STARS-HCM chargeable to project directives
- performing periodic reviews of unliquidated obligations and unmatched disbursements
- validating expenditures
- advising the funds grantor of excess funds available for recapture

This allows headquarters financial managers to have current information on the status of funds by terminal inquiry. The terminal inquiries provide a variety of information including funds status, document status, and current accounting month transaction history, which eliminates the need for most memoranda records. Funds obligated in STARS are not immediately available for invoice payments; it takes 24 hours for the system to update all the validation tables. Invoices processed the same day as the obligation will suspend until these tables are updated. This system also eliminates the need for some message reports on the status of funds and expedites the funds authorization and recoupment process.

4.6 Funds Provided to SUPSHIPs

4.6.1 SUPSHIP Mission Funds

The SUPSHIPs are mission-funded activities financed with appropriated O&MN funds. Department of the Navy Financial Policy Manual, NAVSO-P 1000, provides guidance in budgeting and financial management of funds granted under a NAVSEA O&MN appropriation for salaries and for the general and administration expenses (G&A) incurred in the daily operation of the SUPSHIP.

4.6.2 Ship Construction Funds

The Program Executive Offices (PEOs) budget for and fund ship new construction programs and carrier refueling overhauls (RCOH) from SCN and RDT&E appropriations. Based on the estimates of the program managers, the Naval Sea Systems Command (NAVSEASYSCOM) prepares annual budget requests which are submitted for review. The budget process follows the same process as SUPSHIP O&MN, and calls for sequential submissions up the chain starting with the Navy Budget in the summer, the Office of the Secretary of Defense (OSD) Budget normally submitted in the fall, and culminates in the President's Budget submission to the Office of Management and Budget (OMB) in February of each year. Once the funding is made available to the program offices in the year of execution, funding for various items is forwarded to the SUPSHIP via a Ship Project Directive (SPD). SPDs authorize the SUPSHIPs to initiate action to accomplish tasks specified in the SPD at a total cost not-to-exceed the funds negotiated and cited on the document.

4.6.3 Foreign Military Sales (FMS) Funds

Foreign Military Sales (FMS) provide military assistance through the sale of defense articles and services to eligible foreign governments and international organizations. The United States normally receives full reimbursement for costs associated with these sales. Most sales are made on a "dependable undertaking" basis. To ensure that the U.S. Government will not suffer a loss resulting from the sale, the foreign government agrees to provide cash to cover payments to contractors and to reimburse the Department of the Navy for work performed. Initially, most obligational authority is in the form of unfunded contract authority where the cash needed for expenditures is not available. Defense Finance and Accounting Service (DFAS) Defense Accounting Office (DAO)-DENVER is responsible for obtaining the required cash, as needed, from foreign customers on a quarterly basis.

Funding for FMS work is provided to the SUPSHIP from NAVSEA 01 for salaries, travel and administrative expenses directly related to FMS projects within the Continental United States (CONUS). Funding is sent to the SUPSHIP via an SPD from the cognizant program office for travel and salaries directly related to the FMS CASE but occurring outside CONUS. DoD FMR Volume 15 provides additional information regarding financial management of FMS.

4.6.4 Ship Repair Funds

The Fleet Commands (FLTCOMs) budget and fund ship repairs from O&MN and O&MNR appropriations, as applicable. The funds are normally authorized to SUPSHIP for specific use by the Type Commander (TYCOM) responsible for a ship. These funds pay for contractual costs of authorized repairs and for incidental costs, which include:

- Naval Supervising Activity (NSA) material;
- Travel and salary cost for overseas shipchecks;
- Alterations Equivalent to a Repair (AERs) and preparation of drawings or sketches to be contracted out; and
- Electronics field changes on installed equipment.

SUPSHIPs receive ship repair funds from FLTCOMs on NAVCOMPT Form 2168, commonly referred to as a Technical Operating Budget (TOB), to establish planning estimates for each ship scheduled for repair. TYCOMs establish planning estimates relative to the (TOB) funding for the SUPSHIP. A TOB is subject to the statutory authority and limitations of existing laws and statutes described in paragraph 4.3 of this chapter.

Details on ship repair funds, including current year and prior year availabilities, may be found in the Department of the Navy Financial Management Policy Manual, NAVSO-P 1000, paragraphs 074200 and 074220.

4.6.5 Fleet Modernization Program (FMP) Funds

Effective in FY90, the FMP was transferred from the O&MN and O&MNR appropriations to the OPN appropriation. The transfer shifted the emphasis from ship alteration to equipment orientation. Installation of equipment is now funded with the same appropriation and fiscal year funds that procured the equipment. NAVSEA provides funds to SUPSHIPs on PDs for the accomplishment of Title K Ship Alterations (SHIPALTs), electronics field changes for installed equipment, and ordnance alterations (ORDALTs). This funding covers expenses incidental to the accomplishment of alterations, such as:

- Preparation and reproduction of alteration drawings contracted out; and
- Travel costs, other than local, for overseas shipchecks of alterations.

Title D and F SHIPALTS are addressed in paragraph 4.7.2.

4.6.6 Berthing Funds

Messing and berthing is a very complex issue due to the various types of funds that are used to pay the expenses. Expenses can be funded by SCN, TDY or military allowances,

depending on the type of orders issued to the sailor. For SCN funded ship availabilities, the cost of berthing is part of the investment cost of the availability and is funded by NAVSEA using SCN funds. NAVSEA provides these funds to the SUPSHIPs through PDs. For O&MN funded ship availabilities, the cost of berthing is funded by the FLTCOM in the O&MN appropriation. Berthing for crewmembers of new construction platforms varies based on several factors.

For surface ships, crew members are ordered to ships under construction as either a member of the Pre-Commissioning Unit (PCU) that is geographically located at the shipbuilder's yard, or as part of the Pre-Commissioning Detachment (PCD) which is located at a fleet concentration area, normally in the projected homeport of the ship being built. For nuclear-powered ships, crew members are ordered directly to the PCU at the shipbuilder's yard. PCU members are ordered to the ship in increments. Some of these increments are for a period of time greater than 180 days before delivery. In these circumstances, the member is issued orders "For Duty In Connection With Fitting Out (DUTY CFO) (ACC-106)", which allows the member to execute a Permanent Change of Station (PCS). The member is entitled to:

- Move family members/household goods to the PCU, and
- Receive basic allowance for housing (BAH) or government quarters, if available.

A second set of PCS orders will be issued entitling the member to move family members and household goods to the ship's ultimate homeport once it has been designated.

If the crew member will be at the PCU less than 180 days, the orders are written as Temporary Duty In Connection With Fitting Out (TEMDU CFO/ACC-352), with the ultimate duty station designated as the ship in its selected homeport. These orders do not authorize PCS to the shipbuilder's yard. The member is entitled to per diem while on TEMDU at the PCU, and to move family members/household goods to the post-commissioning homeport after the Chief of Naval Operations (CNO) makes the official homeport announcement. Per diem ceases at the scheduled date of delivery for surface ships and at the designated move aboard date for carriers and submarines. Carrier and submarine move aboard dates are generally earlier than the delivery date. At delivery the ship should be habitable. If the Navy accepts delivery of a ship that is uninhabitable, program managers are responsible to pay for pre-com crew housing using SCN end cost funds until the ship becomes habitable.

The administrative division of the PCU processes military orders for assigned crewmembers and verifies who is entitled to government quarters. The PCU is also responsible for providing that information to the installation responsible for arranging military or commercial berthing. If SCN funded berthing is required, the SUPSHIP comptroller receives funding from the program office in order to pay the cost of the required berthing. Certification of entitlement from the PCU is used to validate the payment. After commissioning, messing and berthing expenses become the responsibility of the Fleet.

The feeding or messing of the pre-com crews is not an allowable cost using SCN funds. Military members receive a Basic Allowance for Subsistence (BAS) which is a cash allowance to offset the cost of a member's meals.

4.6.7 Commander Naval Installations (CNI) Funds

Commander Naval Installations Command (CNIC) has overall shore installation management responsibility and authority as the Budget Submitting Office for installations support and is the Navy point of contact for installation policy and program execution oversight. Base support responsibilities vary by region and SUPSHIP. In some cases, minimal funding is transferred to the SUPSHIPs for purchase of cell phones, pagers, long distance service, and vehicles.

4.6.8 Environmental Compliance Oversight Funds

Environmental Compliance Oversight funds are used to support the SUPSHIPs' Environmental, Safety and Health (ESH) programs. This funding supports salaries of civilian personnel involved in ESH programs, projects to ensure that contractor oversight in the ESH arena is effectively conducted, and awareness training that is provided to the contractor, SUPSHIP and ship's force personnel. Environmental funding is provided by NAVSEA 04Z to the SUPSHIPs via a NAVCOMPT 2168.

4.7 Funding Methods

4.7.1 Operating Budgets (OB)

An allotment is a distribution of budget authority to an execution level accounting entity. It authorizes the incurrence of obligations in a specified amount for the purpose of the SUPSHIP mission as described in the budget submission. NAVSEA provides O&MN funding to SUPSHIPs via an allotment called the SUPSHIP's Operating Budget (OB). It is required to be administered in accordance with existing laws and statutes described in paragraph 4.3 of this chapter.

4.7.2 Technical Operating Budgets (TOBs)

FLTCOMs provide ship repair funds (Active and Reserve) and funds for the accomplishment of Titles D and F SHIPALTs by means of TOBs. A TOB is apart from a regular operating budget and may be issued by a claimant or expense limitation holder to a responsibility center, either within the chain of command or across command lines. It is issued for implementation and execution of a headquarters-administered, centrally-managed procurement program. The use of a TOB as a funding instrument for the purpose authorized does not change the basic policy of funding mission operations by a single operating budget through command lines.

The TOB carries the same obligation and expense authority contained in regular operating budgets and is subject to the same administrative and statutory controls, as described in paragraph 4.3 of this chapter.

SUPSHIPs use the STARS-FL system to control FLTCOM TOB funds. The SUPSHIP is responsible only for obligating transactions in STARS-FL; the Authorized Accounting Agency (AAA) is responsible for posting expenditures. The Defense Finance and Accounting Service (DFAS) - Cleveland Center is the designated AAA for FLTCOM TOBs. The AAA will prepare and submit official accounting reports as required by the DoD Financial Management Regulations and NAVSO P-3006, reference (q). The SUPSHIP should maintain only necessary records and should not duplicate records readily available through accounting systems.

4.7.3 Reimbursable Orders

Reimbursable orders are written agreements between components of the Federal Government requiring the performance of work or services by one component and payment by the other component which cover the cost of property, work or services. The DoD FMR Volume 3, Chapter 15 provides general reimbursement policy. DoD FMR Volume 11A contains more detailed guidance regarding reimbursable operations, policies and procedures. All funded, reimbursable orders, including those of an Economy Act Order (EAO) per Assistant Secretary of the Navy (Financial Management and Comptroller) (ASN(FM&C)) memo dated 3 May 2002, reference (r), are subject to the recipient activity projecting that at least 51 percent of the funds will be used for "in-house" work. If less than 51 percent of the work will be in-house effort, the funding for tasks to be contracted out should be provided on a Request for Contractual Procurement (RCP). SUPSHIPs should not accept reimbursable orders when no in-house salaries are to be charged. Reimbursable order accounting requires additional SUPSHIP effort in order to support documentation and accounting workload.

4.7.3.1 Policy

In accordance with FMR Volume 11A, an activity performing a service or furnishing material to another entity shall be reimbursed ***unless*** the performing entity has been provided appropriated funds for that purpose. Because SUPSHIPs are provided appropriated funds for the purpose of performing their assigned mission (NAVSEAINST 5450.36BA), reference (s), they may only accept reimbursable orders for work that falls outside the scope of their mission. Failure to comply with this requirement could result in a violation of 31 USC 1301 (Purpose Act), and possibly 31 USC 1341 (ADA) as well.

The SUPSHIP Funding Decision Tree, Figure 4-1, was developed to assist SUPSHIPs in determining whether a customer requested task falls within or outside the scope of the SUPSHIP mission. The decision tree asks a series of general questions that apply to all taskings, and if necessary, follows with additional questions based on the nature of the tasking and the mission area under which the tasking would fall. SUPSHIP personnel should

request SEA 04Z1 assistance in resolving any tasking that is not clearly addressed by the Decision Tree.

4.7.3.2 Types of Reimbursable Orders

4.7.3.2.1 Project Order (PO)

A project order is a specific, definite and certain order issued under the authority contained in 41 USC 23, reference (t), for the production of material; for repair, maintenance, or overhaul; or for other specific work and services to be performed. It serves to specifically define the work to be accomplished and the terms of the order in much the same manner as contracts with a commercial enterprise. Project orders, once issued, can carry over until completion. However, similar to contracts, project orders must be for hardware or a 'non-severable' service only.

Funds shall be obligated when the performing activity signs acceptance of the project order. The accounting is the responsibility of the accepting activity. The funds provided on a project order cannot be exceeded without written amendment by the ordering activity and are subject to the same fiscal limitations that are contained within the appropriation from which they are funded. Expiration dates of project orders may not extend beyond the point in time in which the ordering appropriation will be cancelled (generally, five years after the appropriation expires for new obligations). Because of the expiring funds limitation, the order must stand the test of a bona fide need to be issued in the current fiscal year and a bona fide intent that the performing activity intends to proceed with the execution of the request without undue delay.

Project orders are subject to the recipient activity projecting that at least 51 percent of the funds will be used for "in-house" work. If less than 51 percent of the work will be in-house effort, the funding for tasks to be contracted out should be provided on an RCP, Request for Contractual Procurement. When funding is sent via a Project Order to another Navy activity, the NAVCOMPT Form 2273 is used.

4.7.3.2.2 Economy Act Order (EAO)

Like the project order, an Economy Act Order provides authority for federal agencies to order goods and services from other federal agencies, including other Military Departments and Defense Agencies. The order is issued, however, under the authority contained in 31 USC 1535, reference (u), and is intended for work or services of a recurring nature where the scope of the work is not specific. These orders are typically used for inter-service support agreements for services such as administrative or janitorial work, utilities, and transportation. However, services such as testing and evaluation and level of effort work-years may be covered by an EAO. When funding is sent to another Navy activity for reimbursable services, the NAVCOMPT Form 2275 is used. This form is commonly called a “Work Request.”

The funds are obligated upon acceptance and the accounting for these funds becomes the responsibility of the accepting activity. The funds provided by an EAO cannot be exceeded without written amendment by the ordering activity. An EAO citing an annual or multi-year appropriation must serve a bona fide need arising or existing in the fiscal year (or years) for which the appropriation is available for obligation. Work requests must terminate upon expiration of the appropriation cited on the document.

4.7.4 Military Interdepartmental Purchase Request (MIPR)

Military Interdepartmental Purchase Requests provide authority to order material, supplies, equipment, work, and services between Department of Defense activities and federal agencies. MIPRs can be received or issued by SUPSHIPs for orders placed with non-Navy DoD activities and federal agencies via DD Form 448. For MIPRs issued by SUPSHIPs, obligations are recorded at the time the orders are issued. Examples of MIPR use include: orders placed with the GSA, Federal Prison Industries, Government Printing Offices, Defense Supply Agencies, printing plants authorized to be established by the Joint Committee on Printing, and the Navy Publications and Printing Service Management Office. Many orders placed with these agencies are required by law.

4.7.5 Direct Citations

Direct citations are requests from one Government activity to another to contract for material, equipment or services. The requesting activity provides their accounting data and the performing activity cites the requesting activity's complete line of accounting directly on the contract. The accounting function remains the responsibility of the requesting activity and its AAA. The funding cited on the document will not be exceeded without an amendment issued by the requesting activity. The funds retain all legal limitations that existed when the requesting activity accepted them.

Requests for Contractual Procurement (RCP) can be issued on either the NAVCOMPT Form 2276 or 2276A to pass direct citation authority to other Navy Activities. These documents are issued when the receiving activity will contract out at least half of the work. When the performing activity signs acceptance, they are agreeing to perform the work; however, direct cite obligations are not recorded until the contract is awarded. The performing activity must comply with fiscal law and all restrictive statements contained in the document and ensure that confirmed copies of the contracts or orders that result are promptly provided to the requesting activity and its AAA for posting of obligations and expenditures.

4.7.6 Letters of Authority (LOA)

A Letter of Authority (LOA) can be used in funding work or services in instances when the activity requesting the work or services does not have the authority to issue a TOB and no other appropriate funding document can be identified for use. LOAs authorize the recipient to direct-cite the funds of the requesting activity on applicable financial documents. Therefore, LOAs must contain complete line of accounting data, a statement of the maximum

dollar amount authorized, and the purpose for which the LOA is issued. If the LOA requires requisitioning material from stock, a universal fund code should be provided. The LOA should be assigned a standard document number and it must provide for acceptance by the performing activity.

The document becomes effective when the performing activity signs acceptance. A formal funding document will be issued as soon as possible. SUPSHIPs will promptly provide a copy of all financial documents issued to the requesting activity. Due to this requirement for official accounting at the source activity, the use of LOAs should be minimized.

4.8 General Classifications of Funds Transactions

All expenditures must be preceded by an authorization to expend from the available funds. In theory, every transaction progresses through the four stages of initiation, commitment, obligation, and expenditure.

The four stages of funds transactions are described as follows:

- **Initiation**: An administrative reservation of funds based on procurement directives, requests, or equivalent instruments that authorize preliminary negotiations, but require that funds be certified by the official responsible for the administrative control of funds before incurrence of the obligation. Initiations are entered into memorandum accounts to help keep pre-commitment actions, such as approved procurement programs, within the available subdivision of funds. Initiations identify funds to be set aside for planning purposes before establishment of commitments or obligations. Initiations will not be maintained as a part of the official fiscal records.

- **Commitment**: A firm administrative reservation of funds based on solid procurement directives, unaccepted customer orders, requisitions, authorizations to issue travel orders, or equivalent instruments which authorize the recipient to create obligations without further recourse to the official responsible for certifying the availability of funds. A commitment is generally recorded when the comptroller signs the document to certify that the funds are available and properly cited for the effort. Only warranted or authorized personnel can legally obligate government funds.

- **Obligation**: A firm commitment of funds incurred when an order is placed, contract is awarded, service is received, travel orders are issued, and similar transactions are entered into requiring future payment of money in an agreed amount. By law, obligations must be supported by documentary evidence of a mutual agreement in writing. Each individual transaction must meet the test of the following principles:

    - A determination that the specific goods, supplies or services required according to contracts entered into or orders placed obligating an appropriation are intended to meet a bona fide need of the fiscal year charged; and

- Contracts entered into or orders placed for goods, supplies or services will be executed only with a bona fide intent that the performing activity will commence work and perform the contract without unnecessary delay.

- **Expenditure**: A disbursement and accounts payable transaction processed by the SUPSHIP or disbursing office, as applicable, that results in a reflection of expenditures. The Debt Collection Improvement Act of 1996, Public Law 104-134, reference (v), requires payments on all Federal contracts to be made via Electronic Funds Transfer (EFT) if the solicitation was issued after June 26, 1996. DoD FMR Volume 5 Chapter 24 applies. All DoD Vendors are required to be registered in the Central Contractor Registration (CCR) database as DFAS payment offices use the EFT data provided in the CCR in order to issue EFT payments. There are only limited exceptions to this mandate.

4.9 Prompt Payment Act, 5 CFR 1315

In 1982, Congress enacted the Prompt Payment Act, PL 97-177 (now 5 CFR 1315), reference (w). The Prompt Payment Act was passed to help ensure federal agencies pay vendors in a timely manner, pay interest when payments are made late, and take discounts only when payments are made by the discount date. The Prompt Payment Act requires an assessment of late interest penalties against agencies that pay vendors after a payment due date. The late payment interest rate was established under the Contract Disputes Act and is referred to as the "Renegotiation Board Interest Rate," the "Contract Disputes Act Interest Rate," and the "Prompt Payment Act Interest Rate."

4.9.1 Usual Reasons for Late Payment

- **Improper or Late Distribution of Contract** - This is the primary reason that payments are made late.

- **Direct Cite Funding** - Many payment problems arise in this category. The funding activity, not the SUPSHIP, inputs obligations for direct cite lines of accounting. If the obligation is not input or is input incorrectly, the SUPSHIP cannot correct the obligation because the SUPSHIP does not have access to the funding activity's Unit Identification Code (UIC) in the accounting systems. Many activities that issue direct cite funds do not use STARS; therefore, the DFAS office must obtain a guarantee from the activity that the obligation is awaiting payment, also known as a pre-validation.

- **Credit Modifications** (also known as a Delete or Down Cost Modification) - Contractors tend to ignore delete modifications or bill them at a much later date. SUPSHIP financial personnel should input delete modifications into the accounting system as soon as possible to avoid overpayment. When validation is attempted, insufficient funds are available. The result is the contractor has to resubmit the invoice.

- **Misapplied Payments** - Misapplied payments are the most time-consuming reason for late processing of invoices. The processing of previous payments to the wrong line of

accounting results in insufficient funds. It often takes a great deal of time to identify and correct the problem.

4.9.2 Progress Payments and Prompt Payment Requirements

Per DoD FMR Volume 10 chapter 7, progress payments are not subject to the Prompt Payment Act. They are considered to be contract financing payments and are paid based on specific payment terms contained in the contract. Department of Defense policy is to make contract financing payments as expeditiously as possible. The standard due date unless otherwise specified is 7 days for progress payments.

4.10 Reports

SUPSHIPs are required to prepare several financial reports on a periodic basis. Some of the primary reports are addressed individually below. Other reports and data calls to support budgets, reviews and funding allocations are requested from the comptrollers on an as-needed basis.

4.10.1 CIVPERS Reports

4.10.1.1 Full Time Equivalent (FTE) Report

The FTE report includes actual hours executed by direct, reimbursable and FMS categories and explains deviations to phased controls. This report is due by the 6th of each month.

4.10.1.2 SUPSHIP Monthly Attrition Report

The SUPSHIP Monthly Attrition Report details actual civilian personnel reductions at each activity. This report is due by the 6th of each month.

4.10.1.3 SUPSHIP Monthly Accretion Report

The SUPSHIP Monthly Accretion Report details actual civilian personnel increases at each activity. This report is due by the 6th of each month.

4.10.1.4 Bi-Weekly SUPSHIP Hiring Status Report

The SUPSHIP Hiring Status Report details actual civilian hires from the activities' initial action to the date the new hire becomes effective and/or the permanent conversion of reimbursable positions to direct. This report is due the first Tuesday at the end of each pay period.

4.10.2 Funds Status Report

4.10.2.1 SUPSHIP EOB Monthly Fund Status Report

The SUPSHIP EOB Monthly Fund Status Report details, by object class code, the current status of funding allocation. Financial reports are a tool to display the status and use of SUPSHIP resources. For managers to exercise proper stewardship over their resources, it is essential that financial reports be accurate and timely. SUPSHIP comptrollers are responsible for the accuracy and completeness of financial information in reports which present the financial effects of the SUPSHIP's operation. This report is due the 15th of each month.

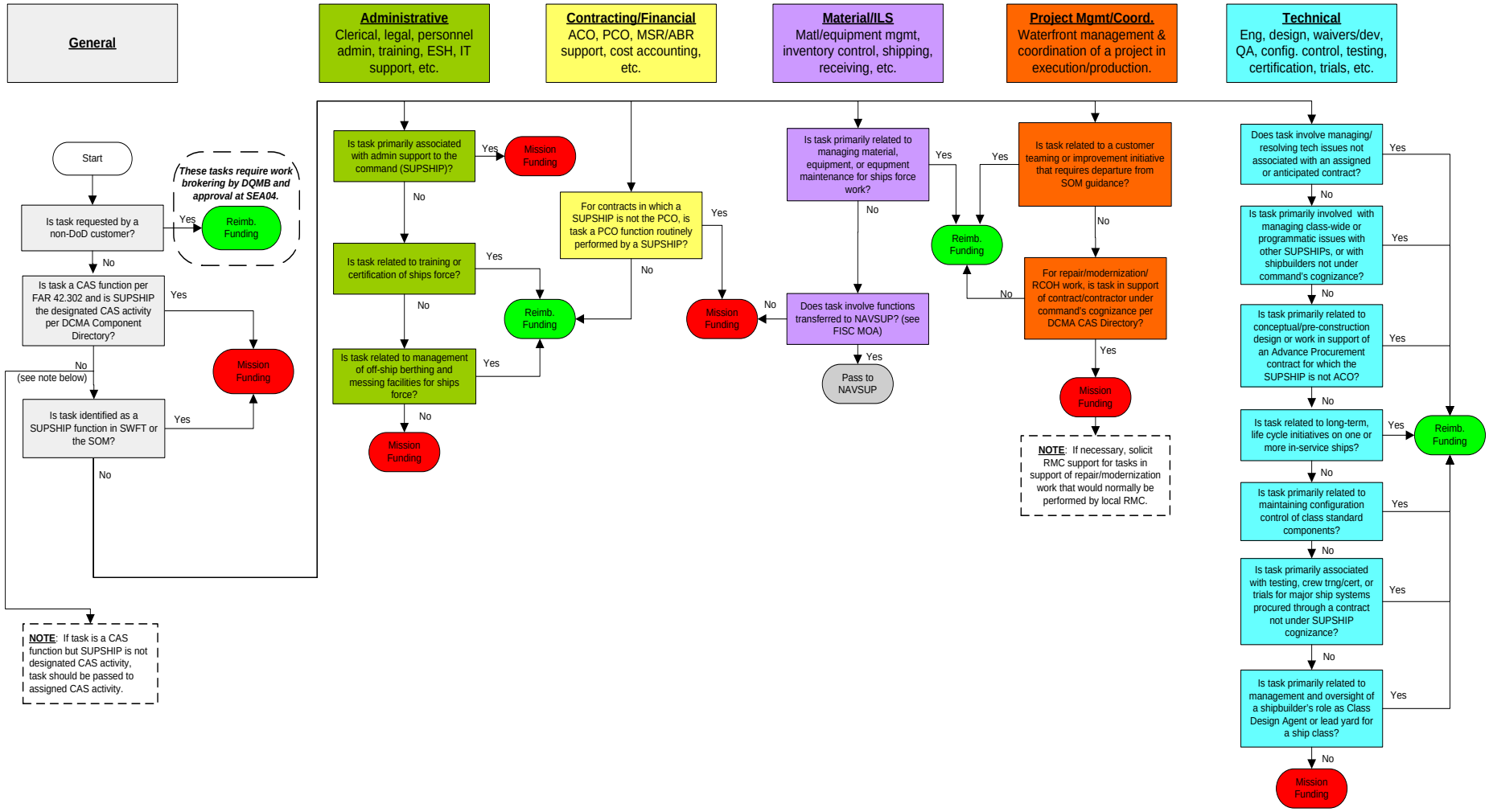

Figure 4-1. SUPSHIP Task Funding Decision Tree

Appendix 4-A: Acronyms

AAA	Authorized Accounting Activity
ADA	Anti-Deficiency Act
AER	Alteration Equivalent to a Repair
ASN(FM&C)	Assistant Secretary of the Navy (Financial Management and Comptroller
BAH	Basic Allowance for Housing
CCR	Central Contractor Registration
CFR	Code of Federal Regulations
CIVPERS	Civilian Personnel
CNI	Commander, Naval Installations
CNIC	Commander, Naval Installations Command
CNO	Chief of Naval Operations
CONUS	Continental United States
DFAS	Defense Finance and Accounting Service
DFAS-DAO	Defense Finance and Accounting Service-Defense Accounting Office
DoD	Department of Defense
DoD FMR	Department of Defense Financial Management Regulation
DoDD	Department of Defense Directive
DoN	Department of the Navy
Do NMIC	Department of the Navy Managers' Internal Control Program
EAO	Economy Act Order
EFT	Electronic Funds Transfer
EOB	Expense Operating Budget

ESH	Environmental, Safety and Health
FLTCOMs	Fleet Commands
FMP	Fleet Modernization Program
FMS	Foreign Military Sales
FTE	Full Time Equivalent
G&A	General and Administrative
GSA	General Services Administration
K ALTs	Title K Ship Alterations
LOA	Letter of Authority
MIPR	Military Interdepartmental Purchase Request
NAVCOMPT	Navy Comptroller
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction
NAVSEASYSCOM	Naval Sea Systems Command
NAVSO-P	Navy Financial Policy Manual
NCWF	Navy Capital Working Fund
NSA	Naval Supervising Activity
O&M,N	Operations and Maintenance, Navy
O&M,NR	Operations and Maintenance, Navy Reserve
OB	Operating Budget
OMB	Office of Management and Budget
OP,N	Other Procurement, Navy
ORDALTs	Ordnance Alterations
OSD	Office of the Secretary of Defense

PCD	Pre-Commissioning Detachment
PCS	Permanent Change of Station
PCU	Pre-Commissioning Unit
PD	Project Directive
PDLI	Project Directive Line Item
PEO	Program Executive Office
PL	Public Law
PO	Purchase Order
POM/PR	Program Objective Memorandum/Program Review
RCOH	Refueling Complex Overhaul
RCP	Request for Contractual Procurement
RDT&E	Research, Development, Test and Evaluation
SCN	Ship Construction, Navy
SECNAVINST	Secretary of the Navy Instruction
SPD	Ship Project Directive
STARS	Standard Accounting and Reporting System
STARS-FL	Standard Accounting and Reporting System Field Level
STARS-HCM	Standard Accounting and Reporting System Headquarters Claimant Module
SUPSHIP	Supervisor of Shipbuilding, Conversion and Repair, USN
SWFT-PM	SUPSHIP Workforce Forecasting Tool/Pricing Model
SYSCOMs	Systems Commands
TDY	Temporary Duty
TEMDU CFO	Temporary Duty in connection with Fitting Out
TOB	Technical Operating Budget

TYCOM	Type Commander
UIC	Unit Identification Code
USC	United States Code
WP,N	Weapons Procurement, Navy

Chapter 5 – Project Oversight

Table of Contents

5.1 Introduction 5-7
5.1.1 Project Management for Other Activities 5-7

5.2 Functional Organization 5-8
5.2.1 Introduction 5-8
5.2.2 Project Leadership 5-10
5.2.2.1 Operations Officer (Code 102/150) 5-10
5.2.2.2 Program Manager Representative (PMR)/Project Officer 5-11
5.2.2.3 Deputy PMR/Project Director 5-12
5.2.2.4 Reserve Integration Team 5-12
5.2.3 Waterfront Delivery Management 5-12
5.2.4 Technical/Change Management 5-13

5.3 Major Functions and Key Processes 5-13
5.3.1 Project Contract Oversight 5-14
5.3.1.1 Contract Pre-Award Support Process 5-15
5.3.1.2 FAR/DFAR/Non-CAS Function Management/Accountability Support Process 5-16
5.3.1.3 Shipbuilder Contract Performance Evaluation Support Process 5-16
5.3.1.3.1 Award/Incentive Evaluation Boards 5-17
5.3.1.3.2 Contractor Performance Assessment Reporting System (CPARS) 5-17
5.3.2 Command Coordination 5-18
5.3.2.1 Work Priority Management 5-18
5.3.2.2 Functional Code Deployment 5-19
5.3.2.3 Design & Production Planning Support 5-19
5.3.2.4 Project Team Development 5-23
5.3.3 Government Interface Management 5-24
5.3.3.1 Project Execution External Communications 5-24
5.3.3.2 Project Oversight Knowledge Sharing 5-24
5.3.3.3 Management of Changes to the Scope of SUPSHIP Workload 5-25
5.3.3.4 PM Acquisition Strategy Implementation 5-26
5.3.4 Change Management 5-26
5.3.4.1 Claims Avoidance and Entitlement Determination Support Process 5-27
5.3.4.1.1 Documenting Significant Events/Claims Avoidance by the Project Office 5-27
5.3.4.1.2 Entitlement Determination 5-27
5.3.4.2 Contract Change Authorization 5-28
5.3.4.2.1 Statement of Work 5-28
5.3.4.2.2 Headquarters Modification Request (HMR)/Specification Change Proposal (SCP) 5-28
5.3.4.2.3 Field Modification Request (FMR) 5-28
5.3.4.2.4 Local Change Management 5-28

5.3.4.2.5 Controlling Changes 5-29
5.3.4.2.6 Monitoring Changes 5-29
5.3.4.2.7 Maintaining Government Estimates Current 5-29
5.3.4.2.8 Local Instructions and Procedures for Control, Monitoring and Management of Changes 5-30
5.3.4.3 Funds and Project Budget Management 5-30
5.3.4.3.1 Financial Management 5-31
5.3.4.3.2 Congressional Restrictions Including Nunn-McCurdy Act 5-31
5.3.4.3.3 Budget Inputs 5-32
5.3.4.3.4 Funds Execution 5-32
5.3.5 Production Oversight and Test Program Coordination 5-32
5.3.5.1 Contractor Interface Management 5-33
5.3.5.2 Test Program Coordination 5-33
5.3.5.3 Shipbuilder Portfolio Review 5-34
5.3.5.4 Production Surveillance 5-35
5.3.5.5 Independent Project Assessment 5-36
5.3.5.5.1 Analysis 5-36
5.3.5.5.2 Reporting 5-37
5.3.5.5.2.1 Weekly Report 5-38
5.3.5.5.2.2 Monthly CNO Availability Reports 5-39
5.3.5.5.2.3 Quarterly Program Review 5-39
5.3.5.5.2.4 Quarterly Ship Status Reports 5-39
5.3.5.6 Non-Shipyard Work Integration Oversight 5-40
5.3.6 Delivery/Sail Away/Post-Delivery Management 5-40
5.3.6.1 Non-Nuclear Crew Preparation for Sail Away 5-41
5.3.6.2 Nuclear Crew Integration into Shipbuilding 5-42
5.3.6.2.1 Nuclear Plant Key Events 5-44
5.3.6.3 Certification Coordination 5-45
5.3.6.4 INSURV Support 5-45
5.3.6.5 Preliminary Ship Acceptance 5-47
5.3.6.6 Guarantee Work Management 5-48

5.4 Personnel Qualification Requirements 5-48

5.5 Assessment 5-49
5.5.1 Background 5-49
5.5.2 Recurring Assessments of the Contractor 5-50
5.5.2.1 SUBSAFE, Deep Submergence Systems and Fly-by-Wire Audit Programs 5-50
5.5.2.2 Command Quality Audit Program 5-50
5.5.3 Project Self-Assessment 5-51
5.5.3.1 SUBSAFE, Deep Submergence Systems and Fly-by-Wire Internal Assessment Program 5-51
5.5.3.2 Support to the Command Quality Audit Program 5-51
5.5.3.2.1 Responsible Process Reviews 5-51
5.5.3.3 Support to the Manager's Internal Control (MIC) Program 5-51

5.6 Actions to Improve Project Outcome 5-52
5.6.1 Adverse Shipbuilder Trends 5-53
5.6.1.1 Issue Identification and Achieving Government Alignment (steps 1 – 7) 5-55
5.6.1.2 Achieving Shipbuilder Acceptance/Ownership of the Problem (steps 7 - 9) 5-56
5.6.1.2.1 Shipbuilder Remedies 5-57
5.6.1.3 Establishing Shipbuilder Accountability (steps 10 – 16) 5-62
5.6.1.4 Government Follow-up Actions (steps 17 – 21) 5-64
5.6.2 Adverse Government Trends 5-65
5.6.2.1 Issue Identification (steps 1 – 3) 5-66
5.6.2.2 Achieving Government Acceptance/Ownership of the Problem (steps 4 - 6) 5-68
5.6.2.2.1 Government Remedies 5-68
5.6.2.3 Follow-up Actions (steps 7-10) 5-69

Appendix 5-A: SUPSHIP Departmental Responsibilities for Contract Administration Functions Under FAR 42.302 (a), (b), and DFAR 242.302 5-71

Appendix 5-B: Communications Planning 5-88
Introduction 5-88
Communications Plan Methodology 5-88
Sample Communications for Consideration in Communications Plan 5-90
SUPSHIP Project Management Communications Plan Template 5-100

Appendix 5-C: Types of Delays and Methods for Determination 5-110
Delays in Performance 5-110
Excusable Delays 5-110
Non-Excusable Delays 5-111
Compensable Delays 5-112
Excusable Delay Relief 5-112

Appendix 5-D: Configuration Management (CM) 5-114
General Terms 5-114
Change Approval Authority for ECPs, ERs, HMRs, and FMRs 5-115
General 5-115
HMR Approval Authority 5-115
FMR Approval Authority 5-115
ECP Approval Levels 5-115
Levels of Organization Approval Authority 5-116
Level I 5-116
Level II 5-116
Level III 5-117
Level IV 5-118
Level IV ECPs Which SUPSHIP May Consider Essential 5-118
Correction of Specification Defects 5-118
Submarine Non-Deviation (ND) Program 5-119
Trial Board Items to be Accomplished before Delivery 5-120
Changes to Accomplish ORDALTs on NAVSEA Equipment 5-120
Correction of GFM 5-120

Improvements to Government-Furnished Electronics Equipment 5-120
Contractor Preparation of Formal ECPs 5-120
Changes in Provisioning or Allowances 5-121
Changes of Higher Tier Documents 5-121
Changes Which SUPSHIP Shall Consider Optional 5-121
Approved Value Engineering (VE) Projects 5-121
Correction of Design Deficiencies 5-121
Habitability Improvements 5-121
Industrial Assistance for Ship's Force (SF) 5-121
No Cost or Reduced Cost Changes 5-123
Deviations 5-124
General 5-124
Approval Authority of SUPSHIP 5-124
Procedures for Processing Requests for Deviations 5-125
Records 5-126
Waivers 5-126

Appendix 5-E: Independent Work Progressing 5-127
Independent Work Progressing of Design Contracts or the Design Phase of Design/Build Contracts 5-128
Independent Work Progressing of Construction Contracts 5-128

Appendix 5-F: Sample Recurring Reports 5-131

Appendix 5-G: Acronyms 5-135

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(b) NAVSEAINST 5400.60A, On-Site Program Management Representatives (PMR)

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(h) NAVSEAINST 4130.12B, Configuration Management (CM) Policy and Guidance

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(o) NAVSEA 0905-485-6010, Manual for the Control of Testing and Ship Conditions

(p) OPNAVINST 4700.8K, Trials, Acceptance Commissioning, Fitting Out, Shakedown, and Post Shakedown Availability of U.S. Naval Ships

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Figures

Figure 5-1: Project Office Functional Organization 5-9

Figure 5-2: Status Report Process 5-38

Figure 5-3: SUPSHIP Actions to Address Adverse Shipbuilder Trend 5-55

Figure 5-4: SUPSHIP Actions to Address Adverse Government Trends 5-66

Tables

Table 5 - 1: Major Project Office Functions and Key Processes..... 5-13

Chapter 5 – Project Oversight

5.1 Introduction

This chapter discusses project oversight in support of contracts for the construction, conversion, overhaul, and repair of ships, submarines and craft. The objectives of the project oversight function within a SUPSHIP are to:

- Assure shipbuilder performance meets the terms and conditions of the applicable contract
- Influence the shipbuilder to maximize project performance
- Lead headquarters (NAVSEA & PEO's) and Fleet knowledge and actions with respect to shipbuilder project performance (*Government alignment)*

Given the magnitude of taxpayer dollars invested and the critical nature of the shipbuilding and ship repair projects administered by SUPSHIPs, active oversight of contractors' project management and execution is imperative to successful performance.

Project oversight within the SUPSHIP refers to the day-to-day management of assigned new construction, conversion and overhaul projects. The assignment may commence as early as concept development in support of tasking from the Program Manager (PM) and continues until the contract is completed. The Supervisor works with NAVSEA 04Z and the PM to define manning requirements and resources to staff the SUPSHIP project office. A SUPSHIP may have multiple project offices depending on the number, complexity and type of ship classes.

The Program Manager is the individual with overall life-cycle responsibility, commencing with concept development of the Congressionally-approved acquisition program and continuing through definition of specifications, award of contract, contract design, detailed design, construction, deployment, operational sustainment of the class, and ultimately, disposal. The PM reports to the Program Executive Officer (PEO) responsible for the acquisition program. The PM's on-site representative at the SUPSHIP is the Program Manager Representative (PMR). The PMR, as the senior leader of the SUPSHIP Project Office, is responsible for those shipbuilding processes (design and construction) that take place at the shipbuilder's site and is charged with balancing the needs of the PM with the needs of the Supervisor of Shipbuilding.

This chapter addresses the roles and responsibilities of the project office and the key processes in the execution of work. This chapter also describes the organizational structure of the project office, external Interfaces involved in project management, and the personnel qualification requirements for the project office team.

5.1.1 Project Management for Other Activities

SUPSHIPs may be called upon by various activities (e.g., NAVSEA, MSC, DOD, DOT, etc.) to perform oversight functions and other tasks that fall outside the scope of the SUPSHIP mission

as stated in reference (a), NAVSEAINST 5450.36B, Mission, Functions and Tasks of the Supervisors of Shipbuilding Conversion and Repair. Because this is non-mission work, it is not planned and budgeted in the SUPSHIP Workforce Forecasting Tool (SWFT) manning model, and SUPSHIPs do not receive EOB funding to perform these tasks. A SUPSHIP may, however, choose to accept this work and augment command manning if reimbursable funding is provided by the tasking activity.

5.2 Functional Organization

5.2.1 Introduction

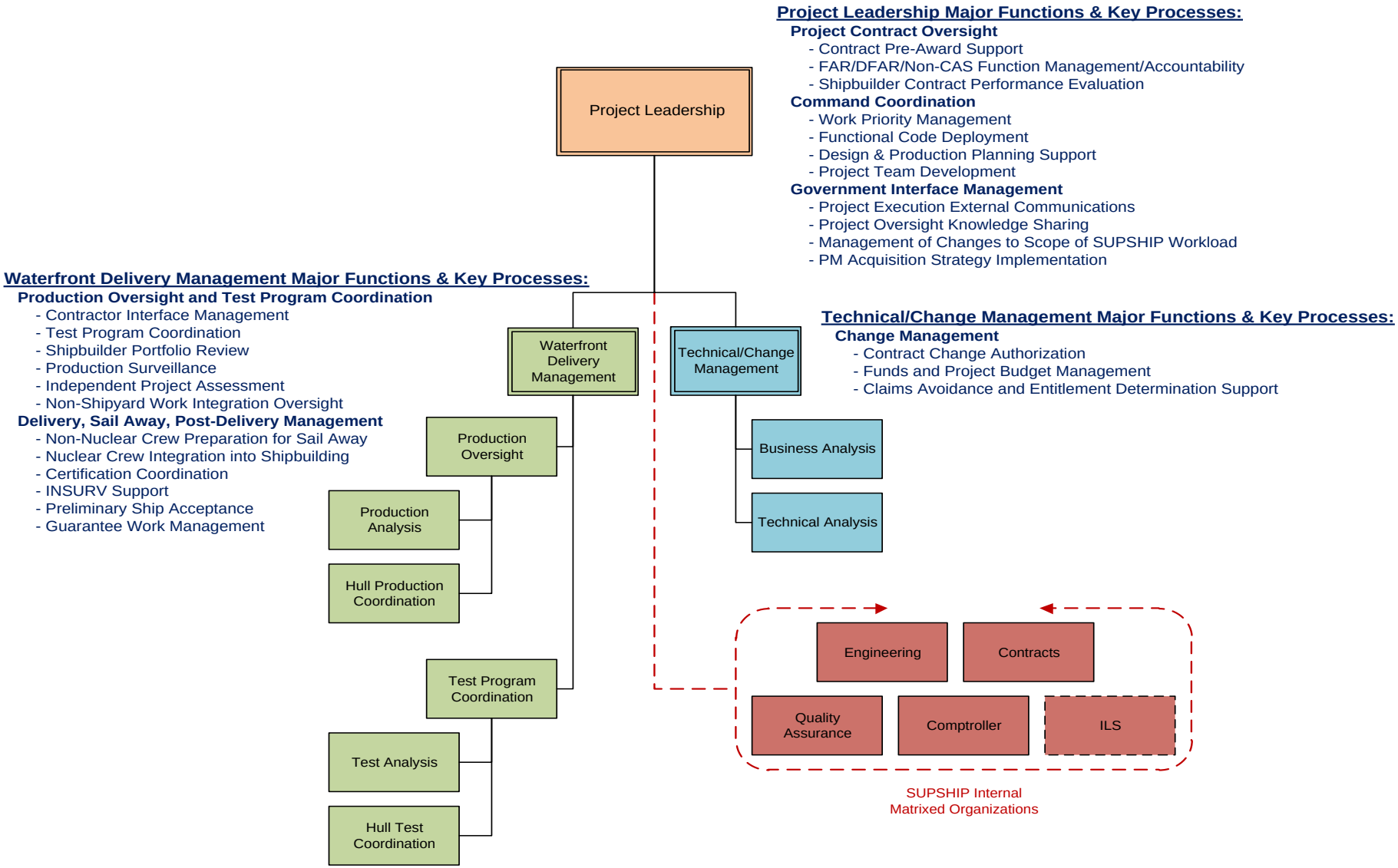
The project office is in effect a “business center” within the SUPSHIP that is led by an assigned Project Officer. The multi-functional project team members provide their unique professional knowledge, skills and abilities to assess the technical completeness of the specifications and in observing the contractor’s technical compliance with the terms and conditions of the contract. The project team may be called upon during the planning phase and pre-award processes to work closely with the Procuring Contracting Officer (PCO) for pre-contract award actions. Following award, the project team will support the Administrative Contracting Officer (ACO) with assigned contract administration in accordance with the mission of the SUPSHIP. Additionally, the project office is accountable for on-site program administration and management in accordance with agreements between the Supervisor and the Program Manager.

The organizational structure needed to manage the diversity of projects assigned to SUPSHIP project offices is dependent on various external and internal factors. The particular makeup of these factors for any particular project will influence the configuration of the organization.

External factors, such as acquisition strategies, shipbuilding and/or ship repair contract structures and the awarded contractor’s historical performance and organizational structure, are some of the key factors that must be considered when developing the project management team. Project leadership must also take into account the skill set available within the SUPSHIP’s key functional organizations, including engineering (C200), quality assurance (C300) and contracting (C400). The proficiency, experience and quantity of managers and employees within these functional codes will determine if project office personnel are needed to supplement their operations.

For these reasons, and because of the innate differences among aircraft carrier, submarine and surface ship project oversight, the commonality among project offices is more appropriately described by the functions performed rather than the organizational structure. Figure 5-1 depicts this functional organization. The subsequent sections will further describe project leadership (sec. 5.2) and project office major functions and key processes (sec. 5.3).

Figure 5-1: Project Office Functional Organization



5.2.2 Project Leadership

Project leadership, usually an Operations Officer, Program Manager Representative (PMR)/Project Officer, Deputy Program Manager (DPMR)/Project Office Representative and Project Director/Deputy, is responsible for overall organizational structure and performance. Direct reports below this level are responsible for production and test oversight, ship delivery/post-delivery and contract change management. Department heads and the project officer jointly develop the manning requirements for the project office, and it is incumbent on project leadership to align the project team organizational structure with the contractor's organization and the requirements of the acquisition strategy. This may include a matrix organization supported by other SUPSHIP functions and other Government activities.

5.2.2.1 Operations Officer (Code 102/150)

The Operations Officer position may be titled as the Deputy for Operations or Waterfront Operations Manager.

The Operations Officer is the senior management official responsible for the day-to-day operations of the SUPSHIP project offices. The position is responsible for cross-program coordination and project issue resolution for all shipbuilding and ship repair projects under the purview of the SUPSHIP.

The Operations Officer responsibilities extend across all projects/contracts administered by the SUPSHIP. Responsibilities and duties include:

- Provide professional leadership and administrative support to the project offices
- Establish program objectives and long range plans to ensure effective and efficient execution of Government project management oversight responsibilities
- Develop project management strategies, goals and objectives consistent with NAVSEA Headquarters, Program Executive Office (PEO) Strategic Business Plans and in collaboration with the contractor(s)
- Optimize the use of financial and personnel resources in meeting project management oversight responsibilities, including developing, maintaining, assessing, and continuously improving common project management oversight strategies, processes, procedures, and practices across all product lines under the oversight purview of the SUPSHIP
- Advise the Supervisor and Deputy Supervisor on project management oversight actions and responsibilities
- Serve as the command's focal point for establishing common project management oversight processes across the SUPSHIP community

5.2.2.2 Program Manager Representative (PMR)/Project Officer

The Program Manager Representative (PMR)/ Project Officer serves as the on-site manager for the PM and leads the SUPSHIP project office for that program. In accordance with reference (b), NAVSEAINST 5400.60A, On-Site Program Manager Representatives (PMR), the PMR reports directly to the PM and administratively to the Supervisor. The PMR's responsibilities may extend to overseeing and advising the PM on the progress of off-site contracts related to the assigned ship construction projects. Typical duties and responsibilities of the PMR include:

- Serve as the primary SUPSHIP point of contact for program matters, which may include participation in advanced procurement actions and the management of pre-construction/pre-award requirements tasked to the SUPSHIP
- Oversee the performance of the project office
- Maintain familiarity with the requirements of the contract and assist the ACO in determining contractor compliance with the terms and conditions of the contract
- Maintain liaison and coordinate actions with the PM, SUPSHIP departments, Fleet customers, pre-commissioning crew/ship's force (SF), and contractor
- Coordinate emerging requirements for planning, scheduling and estimating work associated with contractor proposals, engineering change proposals (ECPs), preparation of Technical Advisory Reports (TARs), and resolution of design and specification issues, including supporting the requirements of the Chief Engineer in complying with the responsibilities as a Technical Warrant Holder
- Schedule and coordinate SUPSHIP and contractor participation in meetings and conferences, including program status reviews and production and technical review meetings
- Monitor contractual requirements versus compliance, and evaluate work progress versus contractor's Earned Value Management System (EVMS) to identify and take actions to prevent or minimize adverse impact on cost, quality, schedule, and performance of the contract. Focus SUPSHIP and contractor management attention to resolve these problems.
- Assist the ACO in monitoring the contractor's performance and accuracy of EVMS data
- Direct the preparation of reports on current status of assigned contracts
- Support the Total Ship Test Program (TSTP), preparations and execution of trials and the Board of Inspection and Survey (INSURV) inspections, and the transitioning of the ship from construction to the active fleet

- Coordinate preparation of the Material Inspection and Receiving Report (DD Form 250) with the contractor for accepting delivery of the ship, including the listing of all outstanding incomplete work

- Make recommendations to the ACO and PM on the value of the incomplete work to aid in determining appropriate funds retention against the contract

5.2.2.3 Deputy PMR/Project Director

The Deputy PMR/Project Director is assigned by the Supervisor and reports to the PMR/Project Officer, acting in that capacity when the principle is absent. The Deputy provides continuity in the project office over the life of the construction effort and interfaces with other SUPSHIP departments to obtain the necessary staff support and other resources required to meet project office responsibilities.

5.2.2.4 Reserve Integration Team

The Reserve Integration Team, led by the reserve unit commanding officer, reports to the Supervisor and serves the project office. The Reserve Integration Team assists the project office in fulfilling SUPSHIP responsibilities and requirements in support of waterfront operations and project management for new construction and CNO assigned modernization and refit availabilities.

Reserve Integration Officers may serve in a variety of positions to supplement the staff support required to meet the project office responsibilities. Under extreme workload conditions and atypical assignment circumstances, Reserve Integration Officers may backfill vacant active duty billets for up to one year.

5.2.3 Waterfront Delivery Management

The Waterfront Delivery Team is responsible for:

- Interfacing with contractor

- Monitoring contractor's production processes and progress

- Managing the twelve Waterfront Delivery processes shown in Figure 5-1

Typically, there are SUPSHIP personnel with specific production trade skill experience assigned to this team who interface with the production workforce on the "deck plates" in assessing compliance with contract specifications and actual work progress. Personnel who are interfacing directly with the production effort provide their expertise to identify specific non-compliant performance and ensure effective corrective action is taken to achieve successful program execution.

5.2.4 Technical/Change Management

The Technical/Change Management Team interfaces with the contractor's and internal SUPSHIP engineering and contracts processes. The team manages the three key processes for Technical/Change Management shown in Figure 5-1. Typically, they are SUPSHIP personnel with specific contracts and engineering/technician experience assigned to this team who interface with the contractor's contracts and engineering departments and support the associated SUPSHIP departments in these efforts. Assignments focus support in the primary areas of business analysis and technical analysis.

5.3 Major Functions and Key Processes

In order to establish a common basis for the Navy to exert influence in the construction, conversion and repair of ships, SUPSHIP project offices execute 26 key processes. These key processes can be grouped into six functional areas that are linked to Service Level Agreements executed between the PEO and the individual SUPSHIP.

Table 5 - 1: Major Project Office Functions and Key Processes

MAJOR FUNCTIONS	OWNERSHIP Primary – P Secondary – S	KEY PROCESSES (SUPSHIP Operations Manual)
Project Contract Oversight	S	Contract Pre-award Support (RFP, J&A, proposal evaluation, pre-award survey) [5.3.1.1]
	S	FAR/DFAR/Non-CAS Function Management/Accountability (FAR matrix line items, project management oversight, contract procurement support) [5.3.1.2]
	P	Shipbuilder Contract Performance Evaluation (award/incentive fee, CPARS) [5.3.1.3]
Command Coordination	P	Work Priority Management [5.3.2.1]
	P	Functional Code Deployment (specific issues on specific projects) [5.3.2.2]
	S	Design & Production Planning Support [5.3.2.3]
	P	Project Team Development [5.3.2.4]
Government Interface	P	Project Execution External Communications [5.3.3.1]
	P	Project Oversight Knowledge Sharing (across SUPSHIP

Management		community [5.3.3.2]
	P	Management of Changes to the Scope of SUPSHIP Workload [5.3.3.3]
	S	PM Acquisition Strategy Implementation [5.3.3.4]
Change Management	**S**	Claims Avoidance & Entitlement Determination Support [5.3.4.1]
	S	Contract Change Authorization [5.3.4.2]
	S	Funds and Project Budget Management [5.3.4.3]
Production Oversight and Test Program Coordination	**P**	Contractor Interface Management [5.3.5.1]
	P	Test Program Coordination [5.3.5.2]
	P	Shipbuilder Portfolio Review [5.3.5.3]
	P	Production Surveillance [5.3.5.4]
	P	Independent Project Assessment [5.3.5.5]
	P	Non-Shipyard Work Integration Oversight [5.3.5.6]
Delivery, Sail Away, Post Delivery Management	**P**	Non-Nuclear Crew Preparation for Sail Away [5.3.6.1]
	P	Nuclear Crew Integration into Shipbuilding [5.3.6.2]
	P	Certification Coordination [5.3.6.3]
	P	INSURV Support [5.3.6.4]
	P/S	Preliminary Ship Acceptance [5.3.6.5]
	P	Guarantee Work Management [5.3.6.6]

5.3.1 Project Contract Oversight

Project offices are an integral part of SUPSHIP contract administration, providing support in three principle areas:

- Contract Pre-Award support to the Procuring Contracting Officer (PCO) and the Program Executive Officer (PEO)/NAVSEA Program Manager (PM) in the development of the initial contract with the shipbuilder

- Performance of specific oversight as required by reference (c), Federal Acquisition Regulations (FAR Part 42), reference (d), Defense Acquisition Regulations (DFAR Part 242), and similar non-Contract Administration Services (CAS)

- Evaluation, determination and documentation of contractor performance for individual contract award fee and incentive fee determinations, as well as input into the Department of Defense Business Transformation Agency (BTA) Contractor Performance Assessment Reporting System (CPARS)

5.3.1.1 Contract Pre-Award Support Process

Process Ownership: The project offices provide support to this overall process that is the responsibility of the PCO and the PEO/NAVSEA Program Manager (PM).

Responsibility: Make recommendations to the Government Program Office Acquisition Plan and to the PCO for development of the government negotiating position.

Products and Services: Provide shipbuilding experience and subject matter expertise to the NAVSEA Contracting Office, PEO/PM and TYCOM in the development of the program Acquisition Plan (AP), the Justification and Approval (J&A), pre-award survey, the Request for Proposal (RFP), the associated Technical Analysis Report (TAR), and Source Selection Board participation in support of contract award.

The SUPSHIP project office should proactively offer support to the PEO/PM in development of the contracting strategy as documented in the program Acquisition Plan, Request for Proposal (RFP) and RFP evaluation. This is usually accomplished by reviewing and commenting on these documents, but can expand to providing full-time, on-site support based on the needs and experience of program office personnel.

The PM and the NAVSEA 02 Procuring Contracting Officer (PCO) utilize both Government and contractor personnel from various organizations for developing the acquisition strategy and documents that will be utilized for a ship or submarine acquisition program. SUPSHIP personnel are often tasked to participate in this phase of the acquisition process that may include assisting in the development of specifications and a contract solicitation package. The solicitation package is approved by the PCO prior to NAVSEA advertising the Requests for Proposals (RFP) at FedBizOpps.gov and/or NECO.navy.mil websites. The PCO receives the contractors' proposal packages and, after determining those that are responsible, presents them to a pre-determined group of subject matter experts who comprise a Source Selection Board that may include SUPSHIP personnel. The PCO provides explicit direction to the board on the process and criteria that is to be used to evaluate the merits of each contractor's package. The board concludes its action by making a recommendation as to the contractor who has presented a responsible offer that represents the "best value" for the Government. SUPSHIPs' participation in a pre-award process presents an excellent opportunity for the Supervisor and staff to commence planning for the potential for an award to their respective contractors, including establishment of the project management team or changes to existing project offices.

The bid or proposal evaluation phase may be followed by the PCO conducting a pre-award survey or contractor review in concert with the SUPSHIP who has plant cognizance over the potential contractor. SUPSHIP personnel have the best information concerning the capabilities and past performance of the contractor along with information in the Contractor

Performance Appraisal Reporting System (CPARS). Following the pre-award survey and prior to contract award, the PCO may require the contractor to specify in writing what corrective action has been taken that will preclude reoccurrence of deficient areas that have been noted in the past or to present documentation for proposed resolutions for deficiencies that were discovered in the pre-award survey. There is general guidance available from NAVSEA 02 on the processes that will be used during the performance of a pre-award survey. Contract award is made once the PCO has determined that the potential contractor's bid or offer is fair and reasonable, that the necessary capabilities and manpower are readily available to execute the contract, and when DCAA has concluded that the company is financially viable. Upon award, the PCO provides a Letter of Delegation that specifies the authority and responsibility of the SUPSHIP Chief of the Contracting Office (CCO) and the assigned Administrative Contracting Officer (ACO) for the contract. The Letter of Delegation is used by the ACO, Project Officer/PMR and project office personnel in performing their Contract Administration Service (CAS) functions, both on-site and off-site. Refer to Chapter 3, "Contracting and Contract Administration," for a more detailed discussion of this process.

5.3.1.2 FAR/DFAR/Non-CAS Function Management/Accountability Support Process

Process Ownership: The project offices provide support to this overall process that is the responsibility of the SUPSHIP Administrative Contracting Officer (ACO).

Responsibility: Ensure the contractor complies with FAR/DFAR and associated non-Contract Administration Services (CAS) requirements assigned to the project offices.

Products and Services: Provide shipbuilding experience and subject matter expertise to the SUPSHIP ACO.

In the 1990's, several significant studies were conducted to determine the best arrangement for providing contractual oversight of shipbuilding, specifically focused on whether or not the SUPSHIP community should be brought under the umbrella of the Defense Contract Management Agency (DCMA). These studies focused on the CAS and unique non-CAS functions provided by SUPSHIP, including the program management aspects of shipbuilding, conversions and repair. These studies concluded that SUPSHIPs should remain under NAVSEA leadership rather than DCMA and recognized the unique contract administration services provided the project offices. Appendix 5-A provides a matrix of the FAR/DFAR responsibilities assigned to the project office.

5.3.1.3 Shipbuilder Contract Performance Evaluation Support Process

Process Ownership: The project offices typically act as the command focal point and coordinate this overall process that is the ultimate responsibility of the Administrative Contracting Officer (ACO).

Responsibility: Provide inputs to Award Fee Boards, individual contract incentive fee determinations and Department of Defense Business Transformation Agency (BTA) Contractor Performance Assessment Reporting System (CPARS) evaluations.

Products and Services: Provide detailed recommendations to the ACO for award/incentive fee and contractor performance ratings.

5.3.1.3.1 Award/Incentive Evaluation Boards

Contracts often include award fees and/or incentive fees to incentivize the contractor to achieve cost, schedule or other performance goals. The fee structure for these incentives is established by the PCO during pre-award negotiations. Incentivized contracts provide significant leverage to the Government in obtaining desired contractor performance and provide a strong signal to the contractor when observed performance or behavior is not meeting the Government's expectation. Incentive-type contracts are addressed further in Chapter 3, "Contracting and Contract Administration."

Incentive Evaluation Board (IEB) members are designated by the PM and Supervisor. Typically, the PM or Supervisor chairs the IEB. The Fee Determining Official is normally a designated NAVSEA representative who considers the Board's recommendations and makes the final determination as to the percentage (0 – 100%) of the fee pool that is justified to be awarded based on the contractor's performance.

Project office leadership has the responsibility to facilitate the selection of SUPSHIP testifiers and for developing the means by which the testifiers will present their assessments to the IEB. The contract defines the categories and overall criteria for assessments. Project office personnel will work closely with their PM counterparts in establishing a joint process to conduct the IEB using the defined categories and criteria.

5.3.1.3.2 Contractor Performance Assessment Reporting System (CPARS)

FAR 42.15 requires evaluation of contractor performance for contracts of specified values. Reference (e), the Department of Navy CPARS Guide, and reference (f), the Department of Defense CPARS Guide, ensure that contractor performance data is current and available for use in source selections throughout the Department of Defense. CPARS assesses contractor's performance and provides a record of both positive and negative performance on a particular contract. Contracts will be evaluated using CPARS on an annual basis, or more frequently, as required by the terms of the specific contract.

The NAVSEA Program Manager and SUPSHIP project office are typically assigned as the command focal points for collecting feedback of contractor performance input into CPARS. Assignment of reporting for specific contracts within CPARS is negotiated between the PEO/PM and the SUPSHIP project office based on the activity that has the best knowledge of the contractor's performance and the applicable up-line reporting responsibilities. When SUPSHIP is assigned the CPARS reporting responsibilities, the Project Officer is typically assigned as the Assessing Official and the ACO is assigned as the Reviewing Official. Details of these specific duties are provided in the CPARS guides.

When assigned as the Assessing Official, the Project Officer should identify supporting representatives as necessary to provide a comprehensive and complete evaluation process as noted in the CPARS Guides. Past Performance Information (PPI) Surveys should be utilized from other departments and commands as appropriate. At no time may support contractors contribute to CPARS development in the form of ratings and comments. Performance evaluations are typically submitted by the following personnel:

- Ship Coordinator
- Project Manager/Production Controller
- Cognizant Contract Specialist
- Cognizant Quality Assurance Specialist
- Cognizant Project Engineer
- Ship's Force (Commanding Officer or designated Availability Coordinator)

The Assessing Official should work closely with the contractor's representative to ensure access to the CPARS and to ensure timely turnaround of inputs. Additionally, the Assessing Official may have to assist the Reviewing Official in the resolution of disagreements presented by the contractor's representative's input in order to finalize the individual contract rating determination.

5.3.2 Command Coordination

Command Coordination is a key role of the project offices with regard to execution of the SUPSHIP's contract administration responsibilities. The project offices are responsible for coordination of cross-program and cross-departmental actions necessary to support shipbuilding/ship repair program execution at the private shipyard. This responsibility is achieved by providing coordination support in four principle areas:

- Assisting in the prioritization of work supporting project execution within a specific SUPSHIP department

- Communicating key upcoming project milestones, key events and project issues requiring the attention of the SUPSHIP

- Coordinating government and contractor efforts in support of design and production planning

- Development of effective project teams

The weekly Project Briefing for SUPSHIP senior managers by the PMR (or assigned representative) is a proven process for achieving effective Command Coordination. These briefings should include key elements of each project in order to gain a consensus among senior managers of the project status and health.

5.3.2.1 Work Priority Management

Process Ownership: The project office is responsible for coordinating the prioritization process within SUPSHIP to ensure day-to-day operations between the government and contractor are effectively interfaced for each project.

Responsibility: Integrate and communicate various Government Program Office/TYCOM priorities into a clear picture to both internal SUPSHIP departments and to the shipbuilder.

Products and Services: Provide prioritization adjudication services for multiple projects within the command.

Each project team shall be responsible for influencing work priorities for their project, including priorities of both the Government stakeholders and the shipbuilder. These priorities shall then be clearly communicated to external stakeholders and within SUPSHIP.

Where project priorities conflict, the Project Officer or Operations Officer shall participate in assessing relative priorities among projects and communicating and managing these priorities with external stakeholders, SUPSHIP departments and the shipbuilder. There shall be sufficient systems in place for both the SUPSHIP and the shipbuilder to provide visibility of requirements for planning and engineering documents, resources, material, and facilities.

5.3.2.2 Functional Code Deployment

Process Ownership: The project office is responsible for coordinating the prioritization process, within the individual SUPSHIP Command, to ensure day-to-day operations between the government and contractor are effectively interfaced internal to each project.

Responsibility: Ensure appropriate data flow between codes (schedules, agendas, etc.) to ensure project priorities are being supported and functional code expertise is engaged at the right time.

Products and Services: Coordinate providing program schedule of major events, milestones, mini-plans, weekly staff briefings, weekly program briefing critical paths, and individual program priorities.

The project team will have processes in place to communicate key issues and priorities across the SUPSHIP departments. These processes may be accomplished via formal/informal meetings and communications.

5.3.2.3 Design & Production Planning Support

Process Ownership: The project office is responsible for coordinating the internal processes supporting the design and planning efforts to ensure effective interface between the government and contractor.

Responsibility: Ensure POCs for all departments are established and incorporated into program developmental activities and program planning processes. Proactively insert SUPSHIP personnel into the upfront efforts.

Products and Services: Provide shipbuilding experience and subject matter expertise to NAVSEA, PEO/PM and TYCOM in order to incorporate lessons learned and avoid pitfalls.

SUPSHIP's accountability and responsibilities for the administration of the assigned contract commences when the Procuring Contracting Officer (PCO) provides the letter of delegation to the Chief of the Contracting Office (CCO). At this point the PCO and the CCO should have established policies and working relationships that will be in effect for the duration of the contract performance period unless written notice is provided otherwise. The PCO will also specify the authority and responsibility that will remain with the PCO relative to contract administration. For example, the PCO will retain authority in many cases for exercising specific options, increasing quantities of deliverables, authorizing overtime above a specified threshold, etc. In addition to the PCO and CCO/Administrative Contracting Officer (ACO) working relationships, the SUPSHIP assigned project management team and the ACO team must develop a clear understanding of the terms and conditions of the contract and establish a "playbook" based on the guidance that is provided by the CCO and PM. It is highly recommended that all SUPSHIP project management team personnel become intimately familiar with the contents of the SOM as it relates to, not only their individual functions on the waterfront, but also to understanding the functions performed by the SUPSHIP CAS organization and the non-CAS functions that provide support for the SUPSHIP mission. Chapter 3, "Contracting and Contract Administration," is an excellent place to start this study.

There is tremendous activity in this initial phase following award. The SUPSHIP team should have been properly engaged in the advanced planning during the pre-award period to allow for the transition into a fully functioning and responsive project office in an organized manner and in a reasonable period of time. Concurrently, the contractor will commence preparing engineering products, detailed production planning and mobilization of the workforce and required resources necessary to execute the terms and conditions of the contract. Critical during this early period in the life of the contract is the requirement that key SUPSHIP personnel, i.e., project office personnel and those supporting CAS functions, be fully engaged with their counterparts in the contractor's organization so that effective ground rules are established as early as possible. This early communication and interface significantly increases the potential for a successful project. However, in this relationship, all SUPSHIP personnel should be familiar with the contents of Chapter 2, "Standards of Conduct and Fraud, Waste, and Abuse," concerning conduct when exercising the responsibilities of their Government position.

In design/build contracts, there are two primary events occurring simultaneously and immediately after award and start of fabrication.

- Design: The contractor's design division's naval architects and engineers, that may include a support subcontractor, develop the engineering products.
    - The ship design personnel utilize specialized design and engineering software to support computer modeling, engineering analysis, finite element analysis, developing projected weight reports, preparing schematics, providing detailed drawings, developing lofting packages, identifying Long Lead Time Material (LLTM) requirements, developing Material Requirements Listings (MRL's), etc. The contractor's management team will typically develop an Integrated Master Schedule (IMS) for design product delivery and

fabrication that supports overall program funding requirements. The design products are reviewed as early as possible by the production planning team and shop personnel to help develop the production processes and shop floor practices and construction plans for erecting the ship.

- SUPSHIP project office and assigned naval architects and engineering personnel are integral to this process. They participate on Integrated Process Teams (IPTs) including System Integration Teams (SITs), Major Area Teams (MATs) and Major Area Integration Teams (MAITs). In addition, they review the contractor's engineering products and drawings and assess the contractor's compliance with the contract's technical and performance specifications. In this capacity, the SUPSHIP engineers and architects support the responsibilities of the SUPSHIP Chief Engineer as the Technical Warrant Holder who works with the NAVSEA assigned Ship Design Managers (SDM) for each design and construction program. Chapter 8, "Waterfront Engineering and Technical Authority," provides amplifying information.

- The project office is responsible for the management and coordination of government-furnished information (GFI) delivery to meet the shipbuilder's integrated master schedule (IMS).

- Production Planning and Mobilization:

  - The contractor's production departments, associated shop trades and material division will begin advanced planning for "start of construction". Examples include:

    - Working with the engineers in the design division to integrate produce-ability recommendations to improve the production processes for various components of the ship on the shop floor and building ways.

    - Preparing process control procedures where required.

    - Assessing opportunities for applying the principles of LEAN and Six Sigma in the early phases of this planning process and integrating this into improved shop floor practices.

    - Reviewing drawings as they are provided by design to the planners in the production trade shops to facilitate shop floor planning and mobilization of the required resources.

    - Commencing Long Lead Time Material (LLTM) procurement and purchasing material such as steel, aluminum, shapes, etc., that will be required to be properly stowed and available in the yard to support production schedules and work flow processes.

- Jointly developing Schedule A GFM delivery schedule and coordination of material delivery.
- Monitoring the GFM and CFM reports to identify and help mitigate late material delivery dates. Some of this function may be provided by FISC, but the project office is still responsible and should have a tracking process in place.
- Finalizing subcontracts for support services or fabrication of designated components.
- Conducting Integrated Baseline Review (IBR) of the Performance Measurement Baseline (PMB), normally six (6) months after contract award, and reviewing detailed shop production schedules for all projects that require in-shop and field support, interfacing the production resource requirements and conflict analysis related to all projects, and presenting work planning alternatives for meeting production schedule requirements.
- Commencing fabrication of manufacturing aids, such as jigs, fixtures, modeling, etc., in preparation for full-scale production.
- Preparing lifting and handling equipment to meet production requirements.
- Preparing the panel line and support resources.

o The SUPSHIP Project Team should be a participant in this early planning phase as it is the prerequisite for sustaining the production work flow.

Initial Production. While the design effort continues, the production work commences and runs concurrently. Construction materials are received, inspected, stored, and staged to support the production trades. Fabrication of special hull structure components may commence in advance of the official construction start date depending on the shipyard workload and the delivery schedule for design products and their availability to the trades. The SUPSHIP naval architects and engineers will monitor the design while production controllers begin observing the start of production. ”Start of Construction” is an event within the shipyard that signals the official date from which the production schedule should be evaluated. It normally consists of a ceremony in which a dignitary designated by the shipbuilder cuts the first steel plate that will be used in construction. The early phases of fabrication include manufacture of special assemblies, plates and shapes that will become components of the hull as erection continues following the keel laying. The level of this effort accelerates as production products become available.

5.3.2.4 Project Team Development

Process Ownership: Project offices shall be responsible for the process of developing project teams. Individual skill development for team members shall be the responsibility of their parent code.

Responsibility: Ensure proper resources and training is in place so that capable personnel exist for all taskings and personnel are able to accept new roles of increasing complexity.

Products and Services: The two components of Project Team Development are:

SUPSHIP Core Project Team Development Plans

SUPSHIP Core Project Teams normally consist of SUPSHIP employees who represent the Government to the contractor for both new construction and overhaul of ships. While members of the team are expected to bring their functional skill sets to the team, their fundamental purpose is to provide leadership for the project at hand. Therefore, in addition to their functional skill sets, the SUPSHIP Core Team members should have a basic knowledge of project management fundamentals such as project scheduling (including critical path analysis and theory of constraints (TOC)), earned value management and resource allocation.

Integrated Project Team Development Plans

Integrated Project Teams normally include the SUPSHIP Core Team, the Contractor Team and where applicable, ship's force (SF). Integrated Project Team development normally includes an initial training session where the team establishes its mission, vision and values. While these are normally considered soft skills, they are important for establishing a framework for the team to understand what is important to them, both as individuals and as a team. For example, effective project teams operate with a sense of trust, openness and integrity which is defined through the Mission, Vision and Values discussion and builds over time.

Early in the project startup phase, consideration should be given to holding specific Integrated Project Team Development (IPTD) training for both the SUPSHIP and contractor team members. These sessions are routinely held in aircraft carrier and submarine maintenance communities and have been highly successful. The course content should be specific to the project at hand and should include topics such as the schedule, scheduling tools and methodology, resource planning and execution, earned value management strategy, change management, work control and testing, etc. While there is not a "one size fits all" approach, the learning objectives, target audience and what has worked on previous projects must be considered. IPTD training should include all stakeholders, not just the Core Team. It may be beneficial to hold several levels of the training, for example, starting with the Core Teams for both the SUPSHIP and shipbuilder in the first session and then expanding the audience with the growth of the project team.

5.3.3 Government Interface Management

Government Interface Management is critical to ensure alignment of the Government offices that have direct contact with the shipbuilder and continuous improvement of processes. This function includes the following processes:

- Project Execution External Communications
- Project Oversight Knowledge Sharing
- Management of Changes to the Scope of the SUPSHIP Workload
- PM Acquisition Strategy Implementation

5.3.3.1 Project Execution External Communications

Process Ownership: The project office is responsible for managing the communications between the project office and outside Government activities.

Responsibility: Assure effective communication processes and practices exist and are utilized by the Government team to maintain alignment with regard to project execution issues.

Products and Services: Communications plans, strategies, reports, etc.

Each SUPSHIP project office will develop a communications plan for its programs that meets the needs of its PMs and other government activities. Project communications include the processes required to ensure timely and appropriate generation, collection, distribution, storage, retrieval, and disposition of project information. Effective communication ensures all stakeholders have the information they need to support the shipbuilding and repair processes.

Appendix 5-B provides information for developing a communications plan, including a basic development methodology, a table listing various types of communications involving the project office, and a Word template to facilitate the writing of a communications plan. Chapter 10 of reference (g), the Project Management Body of Knowledge (PMBOK), also contains useful information and a methodology for developing a communications plan.

5.3.3.2 Project Oversight Knowledge Sharing

Process Ownership: The Operations Officer and the senior project management leadership are responsible for supporting the project oversight knowledge sharing.

Responsibility: Pass along lessons learned to the SUPSHIP community through inputs to a consolidated database coordinated and maintained by NAVSEA 04Z.

Products and Services: Documentation of lessons learned through formal “hot wash” reviews as well as informal collection efforts.

Knowledge sharing provides the opportunity for members of a knowledge community, in this case project management oversight, to share knowledge, best practices, lessons learned, and challenges across the SUPSHIP community. This may take the form of face-to-face meetings, phone conferences and sharing of e-mails and documentation.

NAVSEA 04Z is functionally aligned with the SUPSHIP departments and participates in forums that lend themselves to sharing policy, lessons learned, best practices, and issues in shipbuilding. Active participation by each SUPSHIP will ensure successful knowledge sharing and continuously improve project management oversight processes. This effort supplements the longstanding knowledge sharing activities supporting Carrier Team One and Submarine Team One.

5.3.3.3 Management of Changes to the Scope of SUPSHIP Workload

Process Ownership: The project office provides the information necessary to determine and manage the reimbursable work accepted from a Program Manager. The SUPSHIP Comptroller is responsible for certifying funds and determining the acceptability of the reimbursable basis.

Responsibility: The project office is responsible for managing all project-related taskings from the Program Manager, including work accepted on a reimbursable basis.

Products and Services: As tasked by the project sponsor and accepted by the SUPSHIP.

Program Managers are the most common source of requests for non-mission work. These requests must be scrutinized by both the project office and the Comptroller to ensure the work is legitimate, non-mission work. In the past, failure to do this has resulted in audit findings that work performed on a reimbursable basis was in fact SUPSHIP mission work. This resulted in an Anti-Deficiency Act violation (see section 4.3.1) and necessitated identifying expired O&M, N funds to cover work that had been performed with SCN funds.

The SUPSHIP Task Funding Decision Tree (Figure 4-1) was developed to assist SUPSHIPs in determining whether a customer-requested task is mission or non-mission work. The decision tree leads to this determination by asking a series of questions regarding the nature of the tasking. NAVSEA 04Z1 should be consulted in resolving any tasking that is not clearly addressed by the decision tree.

After determining that the tasking is non-mission work, SUPSHIPs must also ensure that personnel resources will be available to perform the work prior to accepting the tasking. It is important to note that SUPSHIPs are under no obligation to accept reimbursable work, but it is often advantageous to do so since it may help fill a low point in SUSHIP workload and mitigate manning reductions. Hiring additional full-time personnel to perform reimbursable work, however, can exacerbate SUPSHIP manning and O&M, N funding problems when that reimbursable work comes to an end and funding is no longer available to retain the personnel hired.

Once accepted, project-related reimbursable work becomes the responsibility of the project office. These responsibilities involve ensuring that the work is performed in accordance with the work request, that reimbursable funding remains adequate to support the task, and that customer funds are used only to fund work that is outside the scope of the SUPSHIP mission.

5.3.3.4 PM Acquisition Strategy Implementation

Process Ownership: The PMR is responsible for supporting the implementation of the PM's acquisition strategy at the SUPSHIP.

Responsibility: Participate in internal and external PM working group efforts to refine and improve PM acquisition strategies.

Products and Services: Documentation of strategies and plans are provided in a timely manner.

The acquisition strategy describes the PM's management approach that will be used to achieve program goals of cost, schedule and performance. Each acquisition strategy includes a program structure, the purpose of which is to identify in a top-level schedule the major program elements such as program milestone decision points, acquisition phases, test phases, contract awards, and delivery phases. It also summarizes plans for assessing and mitigating program risk. It will define the relationship between the acquisition phases and work efforts and key program events such as decision points, reviews, contract awards, test activities, production lot/delivery quantities, and operational deployment objectives. The Acquisition Strategy should include a Top Level Integrated Schedule and a summary of highlights from the Integrated Master Plan and Integrated Master Schedule.

Each SUPSHIP project office should be familiar with its project's Acquisition Strategy and take actions within its span of control to support it. Oversight of the contractor will vary depending on contract type and robustness of the shipbuilder.

5.3.4 Change Management

Project offices are an integral part of SUPSHIP contract administration. They provide support in three principle areas:

- Claims avoidance and entitlement determinations in support of contractor Notifications of Change (NOC), Requests for Equitable Adjustments (REA) and claims that may result in subsequent mediation or court disputes
- Contract change authorization
- Funds management in support of PEO/PM or Type Commanders (TYCOM)

5.3.4.1 Claims Avoidance and Entitlement Determination Support Process

Process Ownership: The project offices provide support to this overall process that is the responsibility of the PCO and the PEO/PM.

Responsibility: Track and resolve issues, particularly government responsible issues that have the potential to cause delay and result in a claim, and if a request for contract adjustment is made by the contractor, assist the PCO/ACO in making the entitlement decision and assist the PM in resolution of the budget impacts resulting from the entitlement determination.

Products and Services: Document all aspects of contract execution in order to have a sufficient history to defend the government from a potential claim or insurable event.

5.3.4.1.1 Documenting Significant Events/Claims Avoidance by the Project Office

NMCARS 5233.90 and NCH 33.90 require that SUPSHIP personnel involved in contract administration maintain a record of significant events in order to provide a means for verifying, quantifying or refuting matters related to a contractor claim (see section 3.13.4.1.1). This documentation is required for all contracts either in excess of $5 million or for which a claim is expected. The significant events records may include correspondence, meeting minutes, labor records, material purchase orders, project schedules, schedule updates, productivity data, and project monitoring information or any other information that will form the basis for asserting or rebutting a claim.

The Contracting Officer will specify to the project management team the requirements for maintaining a "Significant Events" file. All Government personnel involved in the performance of a contract should maintain a real time record of significant events that occur during the contract period. Significant events are personal observations of conditions or actions by or to any party to the contract which may affect the performance of the contract. Having this "Significant Events" file and related documentation allows the Government to support or refute claims, terminations of contracts, settlements, and determinations, or to provide evidence for litigation, investigations, or award and incentive fee determinations. They also include written records of deficiencies in work progress and accomplishment. Specific detailed methods for determination of delay are included in Appendix 5-C.

5.3.4.1.2 Entitlement Determination

Typically, when a contractor makes a determination of potentially being contractually harmed, he will submit a Notification of Change (NOC) letter or request for equitable adjustment (REA) proposal to the ACO in accordance with the provisions of the specific contract. The ACO will typically request a recommendation from the project office, based on detailed facts of the Government's position, in order to develop a timely response to the contractor. The project office will have to work closely with the ACO and legal counsel in order to finalize the Government position as part of the technical analysis of the contractor's allegations.

The project office should develop the Government position based on the documentation required in section 5.3.4.1.1, and all other materials available to the office, in order to develop a fair and comprehensive recommendation to the ACO.

5.3.4.2 Contract Change Authorization

Process Ownership: The project office provides support to the Administrative Contracting Officer (ACO).

Responsibility: Develop and facilitate contract change authorizations. This may include, but is not limited to, development of a statement of work, pre-award work scoping, contract bid technical evaluations, contractor work coordination and oversight, and work completion certification.

Products and Services: Correct, timely and executable statements of work for authorized changes.

5.3.4.2.1 Statement of Work

The Project Officer/PMR must work closely with the Program Office, as well as the shipbuilder, to develop clear, concise and executable Statements of Work (SOW) to accomplish desired changes to contracts, based on direction from a headquarters or local Configuration Control Board (CCB) including: Headquarters Modification Request (HMR), Specification Change Proposal (SCP), Field Modification Request (FMR), Engineering Change Proposal (ECP), or other contract orders.

5.3.4.2.2 Headquarters Modification Request (HMR)/Specification Change Proposal (SCP)

Following approval by the Program Office's Configuration Control Board (CCB), the Configuration Manager will draft a Headquarters Modification Request (HMR) or Specification Change Proposal (SCP) for implementation of a contract change that affects the basic ship specifications.

5.3.4.2.3 Field Modification Request (FMR)

Field Modification Requests (FMR) are locally generated contract changes that do not affect ship specifications, form, fit, or function of the subject component or system. They are issued directly by the local project office and may be controlled by a local SUPSHIP Change Control Board Process (SCCB).

5.3.4.2.4 Local Change Management

The accounting, control and monitoring of changes (Engineering Change Proposals (ECPs), Waivers and Deviations) are the essence of configuration management by SUPSHIP and the Program Manager as outlined in reference (h), NAVSEAINST 4130.12B, Configuration Management (CM) Policy and Guidance. Unnecessary changes put contract completion

within allocated funding at risk. The establishment of effective local procedures, the training of personnel to carry out the procedures, and effective supervision will result in the approval of only necessary and beneficial changes based on full knowledge of the impact of the changes on cost and delivery schedule and timely implementation of such changes. An adequate monitoring system will provide the Supervisor and Program Manager with visibility regarding all ECPs, HMRs and FMRs, including those returned to NAVSEA Headquarters for cancellation or for incorporation in the specifications of follow-on procurements.

Additionally, SUPSHIPs have in place contract vehicles which have ordering provisions (i.e., Basic Ordering Agreements (BOAs), Nuclear Support Agreements (NSA), etc.). These vehicles require effective local procedures, training of personnel to carry out the procedures, and effective supervision.

5.3.4.2.5 Controlling Changes

One effective means of controlling ECPs, Headquarters Modification Requests (HMRs) and Field Modification Requests (FMRs) is to limit approval and disapproval authority to personnel specifically authorized, in writing, to exercise such authority. A parallel requirement is to process all SUPSHIP and contractor-initiated ECPs through an optional SCCB.

The Supervisor is authorized to delegate authority in writing to specified personnel in an activity, as required, to perform the following functions:

- ECP approval authority
- FMR approval authority
- Authority of chairman and members of the SCCB

SUPSHIP will establish local procedures to implement the requirements for management of engineering issues, taking into consideration the responsibilities and authority of the SUPSHIP Chief Engineer as the command's Technical Warrant Holder. SUPSHIP will limit the exercise of authority by persons to whom the above delegations are made to ensure that assigned duties and responsibilities are commensurate with capabilities.

5.3.4.2.6 Monitoring Changes

Previously required Change Proposal Log and Status Record are being replaced by NAVSEA implementation of electronic systems including: Technical Support Management (TSM), Enterprise Resource Planning (ERP) and Standard Procurement System (SPS).

5.3.4.2.7 Maintaining Government Estimates Current

An obligation is established at the time the FMR or HMR is implemented by means of a contract modification. The obligation for unpriced changes is generally the estimate established for the change prior to the forwarding of the HMR or FMR to the ACO. The

administrative control of appropriations requires that the obligation be maintained current. Therefore, the estimate upon which the obligation is based must be reviewed, and the initial estimate provided to the ACO with the HMR or FMR must be as accurate as feasible at that time.

The following reviews of Government estimates of cost and delivery impact are to be made prior to the issuance of unpriced contract modifications to implement approved HMRs or FMRs:

a. HMRs: After reviews and prior to forwarding the HMR to the ACO for implementation.

b. ECPs requiring level III authorization: By the SCCB prior to transmission to the Program Manager.

c. ECPs requiring level IV authorization: By the analyzer prior to consideration by the SCCB and by the SCCB prior to recommending approval to the SUPSHIP ECP approval authority. These authorities are to perform a general review of the estimates prior to approval.

d. Contract modifications: As part of the processing of HMRs and FMRs, the negotiator assigned to the case is to ascertain whether historical data indicates a need for revision of the estimates.

Estimates may be modified as the result of the above reviews by:

- FMR approval authority
- SUPSHIP ECP approval authority
- Chairman of the SCCB

5.3.4.2.8 Local Instructions and Procedures for Control, Monitoring and Management of Changes

SUPSHIP is to promulgate procedures and instructions to carry out the requirements for the control, monitoring and management of changes.

Subsequent to the promulgation of local procedures and instructions, reviews are to be conducted to ensure that they are being carried out by all SUPSHIP personnel.

Detail information supporting configuration management of changes is provided in Appendix 5-D.

5.3.4.3 Funds and Project Budget Management

Process Ownership: The project offices provide support to this overall process that is the responsibility of the Program Manager (PM) for budget management and Administrative Contracting Officer (ACO) for funds management.

Responsibility: Ensuring sufficient funds are provided to SUPSHIP and monitoring funds provided for effective contract execution.

Products and Services: Coordinate tracking of accepted and obligated funds with the command comptroller, make projections of future needs for funds and resolve expiring fund issues, and coordinate with the funds providers (Program Manager/PEO and Fleet) (PEO/PM and Fleet) to ensure timely support to the budget process and specific congressional reporting requirements (i.e., Nunn-McCurdy Act) .

5.3.4.3.1 Financial Management

The Project Officer/PMR must work closely with the comptroller/financial management personnel and the ACO in tracking the status of project funding. Chapter 4, "Financial Management," provides detailed information on this function within the SUPSHIP. As stated in Chapter 3, "Contracting and Contract Administration," only the ACO can obligate the Government, and personnel on the waterfront are at risk for being party to a *constructive change*. A constructive change occurs whenever the Government, through its action or lack of required action, causes the contractor to depart from the agreed to plan or perform other than as specified in the contract. During the performance period of the contract, the project team must exercise great care to minimize the impact of constructive changes that may result in an unfunded liability to the Government.

5.3.4.3.2 Congressional Restrictions Including Nunn-McCurdy Act

Congress may impose program specific requirements in either an annual authorization or appropriation act, which requires specific actions by the PEO, Secretary of the Navy or Secretary of Defense. Such items have in the past included "Cost Caps" that restrict the expenditure of funds beyond certain limitations. Compliance with these requirements requires coordination between SUPSHIP and the Program Office.

It is important for SUPSHIP personnel to recognize that significant cost over-runs may result in a breach of reference (i), 10 U.S.C. 2433, Unit Cost Reports (Nunn-McCurdy Act). This law imposes quarterly Unit Cost Reporting (UCR) requirements on program managers for major defense acquisition programs (MDAPs) and requires Congressional notification when a program exceeds specific thresholds. UCR assesses costs based on Program Acquisition Unit Cost (PAUC) and the Average Procurement Unit Cost (APUC), as described by the following equations:

$$\text{PAUC} = \frac{\text{Total cost for development, procurement, and program-specific military construction}}{\text{Number of end items to be produced}}$$

$$\text{APUC} = \frac{\text{Total funds for procurement}}{\text{Number of end items to be procured}}$$

Two thresholds have been established, one for Significant Cost Growth and one for Critical Cost Growth. If the PAUC or APUC exceeds either of these thresholds, a breach of the Nunn-McCurdy Act has occurred.

Significant Cost Growth: (i) at least 15% over the PAUC or APUC for the program as shown in the current Baseline Estimate.

- or -

(ii) at least 30% over the PAUC or APUC for the program as shown in the original Baseline Estimate.

Critical Cost Growth (i) at least 25% over the PAUC or APUC for the program as shown in the current Baseline Estimate.

- or -

(ii) at least 50% over the PAUC or APUC for the program as shown in the original Baseline Estimate.

If either threshold is exceeded, the service Secretary is required to notify Congress. If the Critical Cost Growth threshold is exceeded, the service Secretary is required to conduct an assessment of the projected cost of completing the program and must certify that the program is essential to national security.

Although UCR is a Program Manager (PM) responsibility, the SUPSHIP Program Manager Representative (PMR) must monitor EVMS data and advise the PM if a potential breach of Nunn-McCurdy requirements is indicated.

5.3.4.3.3 Budget Inputs

The project office is responsible for working with the PM to establish budgets for future contract changes. By working closely with the PM, sufficient funding should be available for the SUPSHIP in advance of the actual needs date, thus ensuring a continuous flow of contract authorization and avoiding program execution delay or disruption.

5.3.4.3.4 Funds Execution

The project office should coordinate with the ACO and Comptroller to ensure funds are properly committed and obligated. Additionally, the PMR should work with the ACO and Comptroller to identify funds for recapture by the PM as early as possible in the fiscal year in order to allow for re-use in support of other program objectives.

5.3.5 Production Oversight and Test Program Coordination

Personnel within the project office are responsible for keeping abreast of assigned hull construction and testing progress and for influencing the contractor to perform his contractual responsibilities. They do so by accomplishing the following critical processes:

- Contractor Interface Management. Effectively communicating with the contractor is a key part of successful project management.

- Test Program Coordination. Facilitating the processes for test procedure maintenance, conduct and reporting, including conduct of sea trials.
- Production Surveillance. Providing status of progress to project schedules.
- Independent Project Assessment. Conducting analysis of project performance and assessing project risk.
- Portfolio review. Conducting special analysis to review the shipbuilder's enterprise to ensure resources are available to successfully attain the project schedule.
- Non-Shipyard Work Integration. Facilitating government-procured outside entities that are contracted to conduct work within the contractor's facility.

5.3.5.1 Contractor Interface Management

Process Ownership: The project office is responsible for coordinating the processes supporting the communication and effective interface between the Government and shipbuilder. (See section 3.7.5 for a discussion of contract involvement).

Responsibility: Participate in and/or initiate verbal or written communications to represent/resolve Government concerns or ensure alignment of requirements and expectations.

Products and Services: Maintain a unified Government voice. Maintain clear, continuous and consistent lines of communications at all levels with the shipbuilder, including regular meetings, telcons, e-mails, reports, communications, managed solutions, etc.

Effective communications with the shipbuilder is a cornerstone of successful program management oversight. It is the responsibility of the project office to develop a communications strategy that addresses how and when this communication will take place.

It is understood that informal methods are often the best way to address issues and their use should be maximized. However, it is also important to plan and implement a formal communications plan to ensure all of the stakeholders, including suppliers, are aligned with regards to program goals, accomplishments and issues. Appendix 5-B provides information for developing a communications plan, including a basic development methodology, a table listing various types of communications involving the project office, and a Word template to facilitate the writing of a communications plan.

5.3.5.2 Test Program Coordination

Process Ownership: The project office is responsible for the processes that communicate the status and issues associated with the test program and preparations for the conduct of INSURV and sea trials to the PM and other associated activities.

Responsibility: Assure that the test program is coordinated in accordance with the contract requirements and all associated technical requirements.

Products and Services: Test Program Coordination includes all of the tasks associated with test program oversight that are not the responsibility of the applicable Technical Authority. The appropriate Technical Authority, most often the SUPSHIP CHENG at private shipbuilder facilities, is responsible for the technical content within individual test procedures, the technical adjudication of test problems, and acceptance of completed testing.

Major project office functions include:

a. Coordinating and maintaining an accurate status and priorities for the review and approval of Test Procedures (TPs), Test Change Proposals (TCPs), Test Problem Reports (TPRs), Final Test Reports (FTRs), and test conduct witnessing.

b. Coordinating, and often conducting, milestone readiness assessments, whether they are required within the shipbuilding contract or not. The project office has responsibility for evaluation and assessment of key criteria prior to concurring with the shipbuilder for conduct of critical test events, such as fuel on-load and dock and sea trials.

c. Maintaining external test program status reporting responsibilities, including written and verbal communication of all test program components. Items include test procedure development status, test procedure accomplishments/issues, test witnessing accomplishment/issues, and test completion status for all tests defined in the contractors and/or Government's test index.

d. Coordinating sea trial preparations and related responsibilities, to include establishing and accomplishing the sea trials agenda, conducting milestone readiness assessments and presentations, conducting INSURV briefs, and satisfying INSURV requirements, including those items described in reference (j), INSURVINST 4730.1F, Trials and Inspections of Surface Ships(reference (j)) INSURVINST 4730.2F, Trials and Material Inspection of Submarines (reference (k))

Test support services include ancillary actions needed to ensure the test program is successful. Items such as Government-Furnished Property (GFP) test equipment, test jig procurement, maintenance, and pier-side/sea trial support are examples of the services provided as part of the test coordination function.

5.3.5.3 Shipbuilder Portfolio Review

Process Ownership: Project office personnel are responsible for accomplishing this task and for providing cross-program impacts to the appropriate PEOs and PMs.

Responsibility: Know the status of the shipbuilder's schedule execution and resources for all programs, including commercial work.

Products and Services: Establish sufficient awareness and level of detailed knowledge to initiate timely corrective actions with the shipbuilder.

Individual shipbuilding programs are analyzed by each program's respective SUPSHIP project office as defined above. However, at the contractor's site, overall success is governed by the proper management of cost, schedule and quality challenges across the shipbuilder's entire enterprise. This includes balancing these requirements among all projects (shipbuilding and or other industrial endeavors) under contract at their facilities.

SUPSHIP personnel, as part of their overall assessment review process, will develop cross-contract assessments as needed in order to assist their respective PEO and Program Offices in evaluating the fidelity of the contractor's Integrated Master Schedules (IMS). The intent of these reviews is to ensure the contractor has balanced the needs of all shipbuilding and industrial projects at its facility, ensuring each project's schedule and resource demands can be met in keeping with the best interest and best value for the Navy.

In those cases where there is a Teaming Agreement among multiple shipbuilders, the SUPSHIP that has oversight of the prime contractor should take the lead in conducting the review for the associated PEO.

It should be noted that this task can only be accomplished for contracts in which SUPSHIP is the designated DoD contract administrator as specified in the Federal Directory of Contract Administration Services (CAS) Components.

5.3.5.4 Production Surveillance

Process Ownership: The project office is responsible for the processes that collect and communicate the status and issues associated with ship construction progress, facilitate program issue resolution and process emergent change authorization.

Responsibility: Conduct construction oversight activities.

Products and Services: Design and construction status reports, project cost and schedule analysis, emergent change authorizations, problem/issue resolution, and work progressing.

Production surveillance includes all of the tasks conducted by project office personnel that enable the PMR and ACO to understand and communicate the detailed construction status of ships under their purview. This information is used for reporting status to the PM/PEO, NAVSEA 04Z/04/00 and other government agencies, as well as to assist the ACO in approving contractor invoice payments. Production process facilitation includes those actions accomplished by project office personnel to help expedite the construction process.

The major functions include production progress reporting, independent work progressing, problem resolution, and COTR-related responsibilities as described below:

a. Progress reporting entails daily monitoring of the shipbuilder's construction activities, schedule adherence, milestone accomplishment, and daily, weekly, monthly and/or

quarterly reporting of these activities. Reports will vary from informal verbal communications to formal Award and Incentive fee testimony. SUPSHIP project offices will provide weekly reports to their PEO customers, monthly reports to NAVSEA 04Z, and quarterly reports in support of formal Program Office quarterly reviews. Section 5.3.5.5 that follows provides more detailed information on progress analysis and reporting, including detailed instructions regarding content and format of a standard new construction weekly report.

In situations where the contract does not require an EVMS, or where the validity of the contractor's EVMS is in question, other forms of progressing may be utilized. Appendix 5-E provides general guidelines for methods of independent work progressing.

b. Facilitating the accomplishment of ship construction and delivery includes day-to-day interaction with numerous contractor and government activities. The project office will act as the central point of contact for issue resolution, especially when the resolution requires coordination with and/or between Government agencies. Examples of these agencies include certification agencies, GFE providers, SUPSHIP divisions (engineering, quality assurance, etc.), ship's force, and the PEO/Program Office.

c. Project office personnel are responsible for obtaining approvals and implementing most changes to ship construction contracts. This responsibility is codified for large changes in the change management process explained in section 5.3.4.2. Emergent minor Government changes (e.g., certification team items) will be authorized, within time and material limits established by the ACO, only by project office personnel designated as a Contracting Officer's Representative (COR) via a formal letter issued by the ACO.

5.3.5.5 Independent Project Assessment

Process Ownership: The project office is responsible for providing project performance assessments.

Responsibility: Evaluate data and metrics to develop independent Government assessment of project performance.

Products and Services: Periodic analysis and communication within SUPSHIP and to NAVSEA, PEO/PM and/or TYCOM.

5.3.5.5.1 Analysis

In addition to reporting project status, project office personnel are responsible for providing analysis of the probability of the shipbuilding project's success. The analysis of contractor-provided cost, schedule and quality data, and other data independently gathered by the Government, is used to provide a prognosis of program health at the shipyard.

Analysis techniques conducted by project office personnel, either independently or in conjunction with other SUPSHIP departments, fall into three main categories; cost performance, schedule performance and milestone readiness assessments.

Cost and schedule performance analyses are conducted by Earned Value (EV) analysts in conjunction with production and test personnel within the project office. These assessments are accomplished using the Integrated Master Schedule (IMS) baseline loaded within the contractor's earned value system. The EV analysts compare cost and schedule "actuals to plan" and develop projections based on the shipbuilder's performance. Project office personnel are responsible for providing information to assist the EV analysts in developing reasons and explanations for any performance outliers. A joint assessment is then made and reported to project office customers.

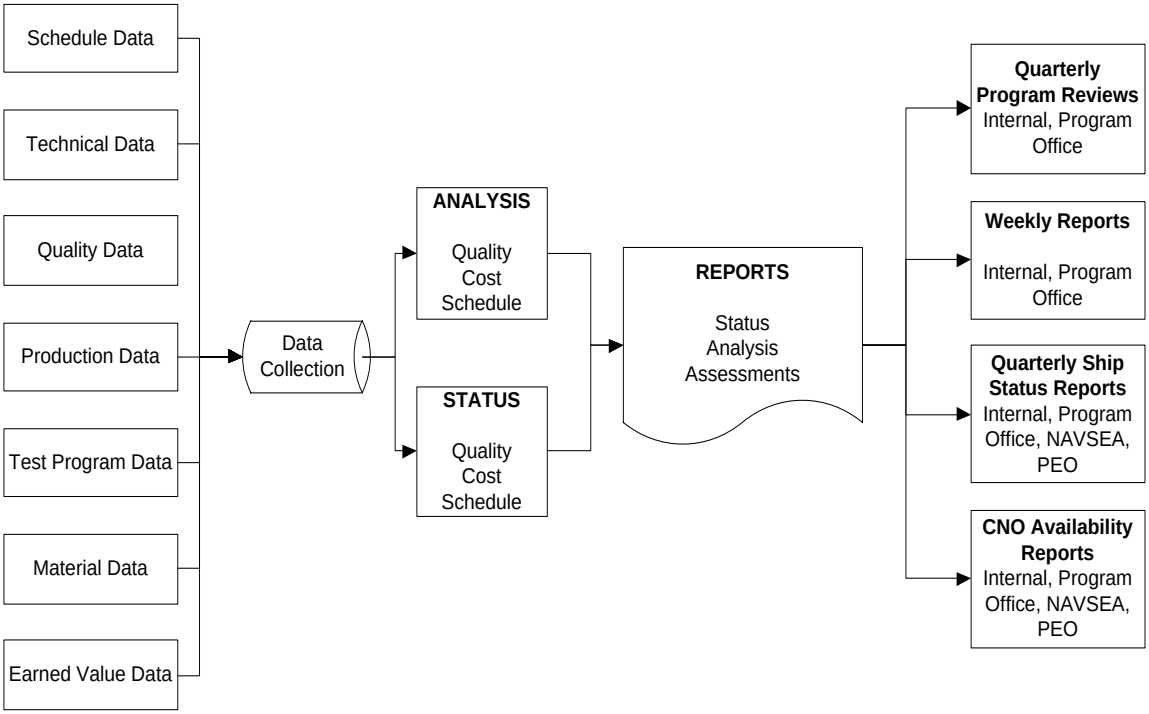
Milestone readiness assessments encompass the remaining bulk of the analysis conducted by project office personnel. These assessments are accomplished in order to support contractually required evaluations, provide real time information to internal and external customers, or to support Program Office requests. The methods used to conduct these assessments vary based on the milestone being evaluated. Most often, production-related information, such as work order/bill conduct/throughput, material installation (e.g., pipe spools, cable, ventilation, major equipment, etc.), compartment completion, and test program status, are used to determine the likelihood of milestone accomplishment success. Past performance data is another key indicator used to establish a contractor's ability to complete the work in accordance with published schedules. The quality of these assessments is generally determined by the experience of the personnel conducting the assessment and the availability of the required contractor data. It is assumed that access to needed data will be made available within the shipbuilding contract. It is the responsibility of project office personnel to communicate with their program office counterparts any data requirement access shortfalls.

5.3.5.5.2 Reporting

Project reporting is driven by many internal and external variables. Items such as program maturity, program stability, contract type, contract requirements, design and/or production phase, program office organizational structure, and acquisition strategy all play into the type and/or frequency of reports that are requested of project office personnel. Project offices will support these requests using the available resources as prescribed by the SUPSHIP Workforce Forecasting Tool (SWFT) manning model.

SUPSHIP will provide weekly status reports, monthly CNO availability messages, quarterly program review presentations, and quarterly Ship Status Reports for SUPSHIP internal managers, Program Managers and NAVSEA 04Z. It is understood that these reports will combine both status information and risk assessments. A high level view of the process is shown below:

Figure 5-2: Status Report Process



5.3.5.5.2.1 Weekly Report

The format for the sample standard project office new construction Weekly Report is illustrated below and is shown in Appendix 5-F. Detailed instructions regarding content are provided below. This report is meant to be representative of a standard weekly report that is to be provided by the SUPSHIP. Additional and/or more detailed weekly reporting is considered to be a reimbursable task.

Page One of the project office standard new construction report will include four sections reporting ship class items of interest to the project and program offices. The first section will contain project areas of concern which may be production, technical or contractual issues of interest to the program manager. The second and third sections will contain the recently completed events and upcoming events of interest to the project or program offices, including milestones, visits and other important project dates. The fourth section will include critical actions awaiting resolution which may be directed to internal or external stakeholders.

Page Two of the project office standard report will be hull specific and repeated for each hull of the class currently under construction. The upper left of the page will include the navy hull designation and important project office personnel associated with the hull.

The upper right of the page will include a “stoplight” display of hull schedule, cost, quality, and an optional metric determined by the project office. The schedule stoplight color will be red for an SPI less than 0.90, yellow for an SPI between 0.90 and 0.95, green for an SPI between 0.95 and 1.05, and blue for an SPI greater than 1.05. The criteria for cost stoplight colors are the same as the schedule stoplight, substituting CPI for SPI. The quality stoplight color will be determined by the project office based on input provided by the SUPSHIP Quality Assurance officer. Trends for hull cost, schedule and quality will be indicated by arrows on the stoplights. The page will also contain tables on the left side depicting staffing levels, progress metrics and other construction phase driven metrics deemed necessary by the project office. Hull milestones, key events and construction timelines (example shown above) will also be included on this page.

Page Three will be a quad-chart containing three hull-specific, phase-driven charts displaying design, production, test, or other information deemed useful by the project office, and a chart depicting quality metrics, such as Corrective Action Request (CAR) status, Continuous Quality Improvement (CQI) status or trial card closures.

Page Four will display the most recent EVMS monthly report for each hull under construction. The example above includes the required charts to be displayed on the page, with an additional section to include assessment from the Earned Value analyst and project office personnel.

The remaining pages of the report will include program, project, class, or hull data, reports, or analysis necessary to communicate the current status of ship production, design, test, or quality.

5.3.5.5.2.2 Monthly CNO Availability Reports

For CNO availabilities where a SUPSHIP is assigned as the Naval Supervising Activity (NSA), the requirements of reference (l), NAVSEAINST 4710.8B Chg 1**, Cost and Performance Reporting for CNO Scheduled Ship Maintenance Availabilities, are followed for monthly reporting.

5.3.5.5.2.3 Quarterly Program Review

The presentation format and content will conform to the individual Program Office’s needs. It is assumed that communication of those needs will take place between the Program Manager (PM) and their respective Program Manager Representative (PMR).

5.3.5.5.2.4 Quarterly Ship Status Reports

The report format and content will conform to instructions provided by NAVSEA 04Z.

** Denotes secure hyperlink requiring NMCI/CAC access

5.3.5.6 Non-Shipyard Work Integration Oversight

Process Ownership: The project office has overall responsibility for non-shipyard work integration oversight. The project office is supported by SUPSHIP QA and other delegated government representatives who provide oversight of Alteration Installation Team (AIT) quality management plans and signs off on work completion documentation.

Responsibility: Interface with Government sponsors, AIT/Customer Contracted Teams (CCTs), Participating Acquisition Resource Managers (PARMs), and other representatives to provide good communications and facilitate resolution of issues.

Products and Services: Progress status, coordinate access requests, production service support requests, liaison between AIT/CCTs/PARM, other representatives and shipbuilder to enforce schedule adherence.

Reference (m), NAVSEA Technical Specification 9090-310, Alterations to Ships Accomplished by Alteration Installation Teams, describes the processes used by AITs to accomplish work. During the Planning Phase prior to the start of the availability, the project office will track progress of work package development and communicate business rules, the overall availability schedule and other relevant information to each AIT/CCT/PARM to ensure proper planning is accomplished. A detailed Plan of Action and Milestones (POAM) or Memorandum of Agreement (MOA), along with all support service requirements, will be collected from each AIT/CCT and provided to the shipbuilder for incorporation in the Integrated Master Schedule. At the time of the installation teams' arrival at the shipyard, all pre-work planning and design will have been accomplished. It is the task of the project office to act as the liaison between the AITs and the shipbuilder's production planning and construction personnel and ship's force work control team. These tasks include AIT check-in, pre-briefs, in-briefs, Installation Coordinator communication, work accomplishment verification including workmanship and quality verification, timely resolution of all condition reports generated by an AIT, out briefs, and final task completion reporting.

5.3.6 Delivery/Sail Away/Post-Delivery Management

Project offices are responsible for ensuring that vessels are ready for INSURV Trials, and with the support of the Contracts Department, are required to make the vessel ready for delivery (Preliminary Acceptance) pending completion of any INSURV required actions. An integral part of preparing for both INSURV and delivery is the coordination of necessary certifications either to make the vessel safe for INSURV Trials or are necessary for the crew to sail the vessel to its homeport.

- Non-Nuclear Crew Preparations for Sail Away: Non-nuclear crews have a significantly reduced role in the shipbuilding process than their nuclear counterparts. The project office role is to ensure that the crew is ready to accept operation of the vessel and to pass at minimum the three certifications required for Sail Away (Force Protection, Light-Off Assessment (LOA) and Crew Certification).

- Nuclear Crew Integration into Shipbuilding: The Pre-Commissioning Unit (PCU) role for nuclear vessels is a substantial one in that the crew takes acceptance of compartments and is responsible for the operation of equipment prior to Delivery. Furthermore, trials are conducted by members of the PCU, not the shipbuilder. Due to the magnitude and broad scope for which the PCU has responsibility, careful coordination among the project office, PCU and the shipbuilder is required.

- Certification Coordination: The project office has the primary responsibility to manage the certification process. Doing this effectively requires close coordination with the Program Manager to capture all required certifications, whether part of the shipbuilding contract or not.

- INSURV Support: Preparation for INSURV Trials is the last major milestone prior to delivery and whose successful completion is a prerequisite for Delivery. The project office's primary responsibilities are to ascertain that the vessel is ready for conduct of INSURV Trials and to sign off on the vessel being safe for sea.

- Delivery: Successful conduct of INSURV Trials and correction of starred cards is a prerequisite for Delivery. During the period between Trials and Delivery, the project office is to insure the necessary outfitting of the vessel, correction of open liens and to verify the items on contractor-produced Material Inspection and Receiving Report (DD250). The DD250 lists all open shipbuilder liens.

- Guarantee Work Management: Following Preliminary Acceptance (Delivery) most contracts specify a period for which the shipbuilder has responsibility to correct deficiencies documented via Guarantee 2-Kilo's (4790/2K), typically a year or less in duration. The project office is responsible to ensure the crew establishes a Guarantee Engineer as well as an efficient process to document and forward 2-Kilos to the shipbuilder.

5.3.6.1 Non-Nuclear Crew Preparation for Sail Away

Process Ownership: The project office is responsible for coordinating the processes supporting the preparation of the Pre-Commissioning Unit (PCU) to move aboard the ship and leave the builder's shipyard.

Responsibility: Coordinate support requirements for PRECOMUNIT standup. Prepare crew for space turnover/load-out, crew certification assist (with dedicated LOA assist), habitability inspection, etc. Resolve any and all issues. Prepare crew for guarantee responsibilities. Authorize work if needed.

Products and Services: Crew preparations for Sail Away, schedules, technical support, funding, and communications support.

Project office processes should be in place to assist the crew to both physically move aboard the ship and to assist them in successfully transitioning into a fully trained and certified entity

capable of taking the ship to sea. This transition, which formally takes place at the Crew Move Aboard (CMA) milestone, requires significant planning and interface between project office personnel and ship's force (SF).

Crew Move Aboard

The physical move portion of this transition includes turnover of ship compartments and systems to the ship's crew (ships force), successful conduct of a habitability inspection, ship's material load-outs, and those tasks required to move ship's crew from temporary offices and housing to their ship. Compartment and system turnover processes differ for each class of ship due to the individual contract, ship completion status and ship complexity, but all will entail steps that include an inspection, compiling deficiencies and resolving those deficiencies. Coordination of the habitability inspection, which is required by OPNAVINST 4700H series, is accomplished jointly by the crew, project office and the contractor. Again, steps within the process include an inspection, identifying deficiencies and deficiency resolution. The load-out of materials/tools, etc. is accomplished by FISC personnel and the ship's crew. Project office personnel are responsible for ensuring the schedule for this event supports the needs of all parties (FISC, ship's crew and the shipbuilder). The project office and the contractor are jointly responsible for ensuring that the crew understands the requirements and rules of the individual shipbuilder with regard to habitation within the industrial facility.

Training and Certification Support

Once the crew moves aboard, its focus is on implementing ship management directives and preparing to take operational control of the ship from the shipyard. Project office personnel are responsible for attending ship's meetings and facilitating problem resolution, which includes crew certification support (e.g., light off assessment (LOA)), shipbuilder deficiency resolution and government work authorization.

5.3.6.2 Nuclear Crew Integration into Shipbuilding

Process Ownership: The project office is responsible for this overall process which ensures that the Pre-Commissioning Unit (PCU) supports the shipbuilder's construction and testing key events.

Responsibility: Ensure the crew has the facilities and training to conduct daily operations in the shipyard prior to In-Service. Prepare crew for taking over operational control (OPCON) responsibilities of ship systems and spaces, test program operations, deficiency identification and resolution processes, contract administration responsibilities/limitations, organizational interface, and responsibilities with the shipyard. Ensure the crew is prepared for key events, such as Habitability and Salvage inspections, sea trials and acceptance trials.

Products and Services: Project specific information, training, and qualification materials for crew use in achieving necessary level of knowledge.

The SUPSHIP project office will proactively support the PCU crew upon arrival by providing PCU crew indoctrination to the shipyard and the acquisition environment. SUPSHIP will provide documents, MOU/MOA's, lessons learned, and other support to allow the crew to conduct a successful period from initial manning through the trials period.

During the initial manning period, SUPSHIP will schedule and assign action responsibility for crew indoctrination briefings, turnover of crew facilities and shipyard safety and security.

SUPSHIP will host a PCU training period. Topics to be covered may include: Key Event Certification, Operational Control (OPCON), Crew Move Aboard, SF/shipbuilder integration plan, Launch to Delivery timeline, PCU funding issues, LAN migration, and Anti-Terrorism/Force Protection (AT/FP) requirements.

SUPSHIP is responsible for ensuring ship's force training requirements and drills are incorporated into the shipbuilder's construction schedule. It has been proven that a sound continuing training program will assist the ship in meeting construction and operational commitments.

SUPSHIP is responsible for ensuring ship's force action items (PMS requirements, technical manuals revision, etc.) support the shipbuilder's test programs and trials.

SUPSHIP is responsible for ensuring the appropriate time durations between key events and crew certifications are adhered to, allowing appropriate time for training and drills, e.g., Post Overhaul Reactor Safeguard Examination (PORSE), Reactor Safeguard Examination (RSE), Crew Certification Phase I and Phase II, etc.

As a ship nears completion of construction, operational control of compartment and systems or portions of a system will be shifted to ship's force on a schedule mutually agreed to by the shipbuilder, SUPSHIP and ship's force. Prior to each OPCON, ship's force and SUPSHIP will conduct a joint inspection of the space or system and present findings to the shipbuilder. After OPCON, a Ship's Force Deficiency Item (SFDI) document is used by ship's force to report deficiencies in systems to the contractor. SUPSHIP will provide training on the system and its use, as well as track items and adjudicate all items between the shipbuilder and the crew.

In accordance with the reference (n), Joint Fleet Maintenance Manual Volume 1, New Construction, a habitability inspection will be conducted two to four months prior to in-service. SUPSHIP will provide support to the PCU for the habitability inspection period from recommending dates of inspection, providing support during the inspection and adjudicating deficiencies between the shipbuilder and the crew. This inspection will support the in-service date where SUPSHIP will turnover custody of the fuel to the ship.

In accordance with the JFMM, a Salvage Inspection will be conducted on submarines at least 28 days prior to the scheduled commencement of Sea Trials. SUPSHIP will provide support to the PCU for the salvage inspection period providing support during the inspection and adjudicating deficiencies between the shipbuilder and the crew.

SUPSHIP ensures that appropriate crew support is provided to support the shipbuilder's meetings, construction, outfitting, testing, and inspections to support construction and sea trials.

SUPSHIP is responsible for ensuring that major key events and milestones are accomplished on time to support ship construction and delivery. SUPSHIP is also responsible for ensuring ship's force understands and supports the shipbuilder's prerequisite list and checklist for launch, initial criticality and non-critical steaming, and certification for fast cruise and all follow-on sea trials.

For submarines, SUPSHIP will assign a delivery team member to be on the ship's safety council working with the crew-assigned ship safety council member and the shipbuilder to ensure all requirements of reference (o), NAVSEA 0905-485-6010, Manual for the Control of Testing and Ship Conditions, are met. The council will provide specific requirements for the control of work and testing that could affect ship's conditions, especially high risk evolutions as described by the manual.

SUPSHIP will assign team members to the various joint test groups under their cognizance. SUPSHIP will be a voting team member, providing insight and technical guidance to the crew on test procedures to ensure a mutual understanding of the procedure requirements, identifying the effect the test could have on ship conditions and ensuring that tests can be performed safely. Additionally, SUPSHIP will provide the technical review and approval of completed test procedures and provide information relative to the status of the test program.

SUPSHIP is responsible for ensuring the ship takes the appropriate actions to present the vessel to the Board of Inspection and Survey (INSURV) for the final acceptable trials and Guarantee Material Inspections.

5.3.6.2.1 Nuclear Plant Key Events

The project office is responsible for tracking the various nuclear plant key events and assisting the ship's force or PCU in support of achieving these key events.

The project office will ensure the crew has the facilities and training to conduct daily operations in the shipyard prior to placing the ship In-Service, to include: prepare crew for Operational Control (OPCON) responsibilities, test program evolutions, deficiency identification and resolution processes, contract administration responsibilities/limitations, organizational interface and responsibilities with the shipbuilder. The project office will also ensure the crew is prepared for nuclear key events, such as Initial fill, Core Load, Steaming, Hot Operations, Initial Criticality and Power Range Testing leading up to In-Service classification of the ship. Additionally, the project office will support ship's force/PCU with certification inspections to achieve these key events.

As a ship nears nuclear plant key events, operational control of agreed upon compartments and systems or portions of a system will be shifted to ship's force on a schedule mutually agreed to by the shipbuilder, SUPSHIP and ship's force. Prior to each OPCON, ship's force,

assisted by SUPSHIP, will conduct an inspection of the space or system and present findings to the shipbuilder. After OPCON, a Ship's Force Deficiency Item is used by ship's force to report deficiencies in systems to the contractor. SUPSHIP will provide training on the system and its use, as well as track items and adjudicate all items between the shipbuilder and the crew.

The SUPSHIP project office will provide sufficient time for crew training during the building period to permit ship's force the ability to attain a state of training adequate to ensure proper operation and safety of the ship and its personnel during nuclear plant key events.

The SUPSHIP will request approval for initial critical operation of a newly installed core from the Director, Naval Nuclear Propulsion (NAVSEA 08).

The project office will recommend to the accepting authority dates for placing the ship "in service" and assist the Supervisor in the transfer of custody and responsibility of nuclear material to the Prospective Commanding Officer (PCO) at "In Service".

5.3.6.3 Certification Coordination

Process Ownership: The project offices provide the lead for all activities required for certification of ships, with support provided by other SUPSHIP departments (200, 300, 400, and 500).

Responsibility: Coordinate completion of necessary certifications to support the project schedule. Properly adjudicate all deficiencies. Compile all necessary certification documentation. Ensure visibility of certification status is maintained and communicated.

Products and Services: Facilitate coordination status of certifications by ship, including certification dates, completions and discrepancy details. In conjunction with the PM, the project office develops a comprehensive matrix of all certifications required by vessel with expected dates certifications are needed. Included with each certification are primary and alternate organizational leads.

Ship certification coordination refers to those certifications contractually implemented and defined within the applicable NAVSEA certification manuals (e.g., NAVSEA S9040-AA-GTP-010/SSCR; Submarine Availability Completion Program Manual (SACM), regulatory body certificates, etc.). Tasks include shipbuilder/certification team schedule coordination, deficiency capture and screening, deficiency resolution, and final certification document management.

5.3.6.4 INSURV Support

Process Ownership: The project offices are the SUPSHIP lead, with support from other departments (200, 300, 400, and 500), and the PCU for nuclear vessels to ensure readiness and prerequisites necessary for INSURV Trials.

Responsibility: Make recommendation to the Supervisor and PM that the vessel meets INSURV prerequisites and is safe for sea. In that evaluation, identify discrepancies and defects and present them to the PM for the INSURV brief. When INSURV arrives for trials, open construction liabilities (i.e., trial cards, CARs, etc.) are presented for review by category,

Products and Services: Preparing new construction or overhaul ships for evaluation by the Board of INSURV is a primary mission of the project office. Reference (p), OPNAVINST 4700.8K, Trials, Acceptance Commissioning, Fitting Out, Shakedown, and Post Shakedown Availability of U.S. Naval Ships, delineates multiple requirements for the presentation of a new construction, non-nuclear, ship for Acceptance Trials. Reference (q), OPNAVINST N9080.3G, Procedures for Test and Trials of Navy Nuclear Powered Ships Under Construction, Modernization, Conversion, Refueling and Overhaul, delineates multiple requirements for the presentation of a new construction nuclear ship for Acceptance Trials.

Prior to trials for non-nuclear ships, the Supervisor is responsible for evaluating the ship's readiness for sea and proposing dates for the conduct of trials. A proposed schedule of events for conduct of the trial should be provided to the INSURV Board for review and approval at least 30 days in advance of trials.

Prior to any trial, the Supervisor should convene and chair a Trial Readiness Review Panel to ensure all necessary actions are complete or on track for completion. This includes reviewing a detailed status of each INSURV Category, Certifications, Tests, Compartment Completion, and other categories as required. This brief is to be kept updated and will provide the basis for SUPSHIP input to the Program Manager's Readiness Brief to INSURV.

If the program requires a Builders Trials (BT), the Supervisor conducts a mock INSURV. During BT, the trial's Schedule of Events (SOE) is executed and deficiencies are documented.

SUPSHIP shall also arrange and coordinate with the INSURV Board services required for hull and combat system demonstrations and provide for coordination of these services.

For Final Contract Trial (FCT), an electronic copy of the ship's Consolidated Ships Maintenance Plan (CSMP) shall be provided to the Board five days prior to the inspection (download from OMMS-NG/SNAP in "up line report" format and forwarded to the Board recorder via email). Additionally, one copy of the ship's CSMP separated by work center shall be provided to the Board upon arrival.

During Acceptance Trials (AT) or Combined/Super Trials (CT), ensure satisfactory presentation of the ship to the Board. The authority operating the ship shall be responsible for the supervision and operation of all machinery and equipment and for the safety of the ship, equipage and personnel embarked.

Following trials the Supervisor is responsible to chair the card disposition conference. To support delivery of the ship, OPNAVINST 4700.8K requires resolution or a waiver from the Chief of Naval Operations for Starred Cards.

5.3.6.5 Preliminary Ship Acceptance

Process Ownership: The project office has the SUPSHIP lead for coordinating the Delivery event and the development of the applicable Delivery documents. The Contracts Department has the lead for developing any needed monetary withholdings and maintaining the delivery documents post-delivery based on inputs from the project office. Other SUPSHIP codes, such as quality assurance, logistics and engineering, own the processes that maintain configuration management of open work in their areas of expertise.

Responsibility: Project office personnel are responsible for ensuring the contractor captures all open work on the Delivery document as well as coordinating the Government review of the contractor's proposal. Responsibility for delivery document maintenance resides with the ACO, with assistance from project office, quality assurance, logistics, and engineering personnel.

Products and Services: A completed and signed preliminary acceptance/Delivery document and associated communication letters.

JFMM Volume 1, New Construction and OPNAVINST 4700.8K define the processes and documents utilized by "Supervising and Accepting Authorities" to accept ships for the Navy. These processes and documents differ depending on ship class, propulsion plant (e.g., nuclear/non-nuclear) and/or final customer (e.g., MSC). In most cases, the process includes a system in which the ship is preliminarily accepted by the cognizant SUPSHIP at the time of delivery at the builder's shipyard followed by a final acceptance once the guaranty period expires.

A formal document, such as a form DD250, which is signed by both the shipbuilder and SUPSHIP representative, is used to capture all of the incomplete contractor responsible work at time of Delivery. Maintenance of this documentation, which may have work deleted or added during the guaranty period, is the responsibility of the cognizant SUPSHIP.

a. Prior to Delivery. The project management team will closely monitor the status of all trial cards and known deficiencies or incomplete work as the date for the Navy to take delivery of the ship approaches. This action is required in advance of SUPSHIP providing notification that the ship or submarine is ready for delivery and the DD250 is signed. All outstanding trial items that are the responsibility of the contractor to correct following delivery are identified as outstanding items and the listing is attached to the DD 250 as exceptions for acceptance of the ship.

b. Exceptions to Completion. The Contracting Officer utilizes the listing of non-compliant deficiency items as the basis to withhold sufficient funding to correct all remaining items at delivery. This action protects the Government should the contractor fail to correct the

deficiencies and the Government has to pay another contractor to correct the problems. Refer to Chapters 3, “Contracting and Contract Administration,” and Chapter 10 “Testing, Trials and Delivery,” concerning withholding funding.

c. Following Delivery, any work that is accomplished on the vessel must be governed in accordance with U.S. Navy policy and, if applicable, under the technical oversight of ABS and the Coast Guard for Steel Vessel Rules ships. Generally, Navy ships control work in accordance with the JFMM Vol 1 – New Construction. Due to differences between the JFMM, new construction contract requirements and shipbuilder practices, it is recommended that a Memorandum of Understanding (MOU) be signed by the Supervisor and the shipbuilder that clearly describes the alternate requirements that the shipbuilder must operate under when completing its DD250 items.

5.3.6.6 Guarantee Work Management

Process Ownership: The project offices are the SUPSHIP lead with support from the Contracts, Engineering and Quality Assurance Departments.

Responsibility: Identify, adjudicate (determine responsibility, cost and brokering to TYCOM, if required) and manage clearance of shipbuilder guarantee deficiencies.

Products and Services: Coordination for tracking, resolution and documentation of guarantee deficiencies.

The project office will coordinate the disposition of guarantee items. The shipbuilder will assign a Warranty Engineer, as specified by the terms of the contract, to address emergent defects or deficiencies, and this individual has the authority to obligate the contractor relative to those items that are determined to be contractor responsible during the guarantee period.

This Guarantee period commences at preliminary acceptance (date the DD250 is signed) and continues as specified in the contract.

As noted in Chapter 10, if the ship’s schedule permits, the Type Commander or Immediate Superior In Command (ISIC) may provide an opportunity for the contractor to correct deficiencies.

The shipbuilder has a contractual monetary limitation depending on the terms of the contract; thus, it is important for the project office to screen both accepted and rejected Guarantee items to ensure the shipbuilder is not charging base contract work to the Guarantee limitation of funds, nor incorrectly rejecting covered Guarantee work.

5.4 Personnel Qualification Requirements

Individual Employee Development Plans

It is expected that SUPSHIP would encourage the development of individual employees by having an individual development plan for each employee. This plan would be developed by the employee and his/her supervisor and would be periodically reviewed by both to ensure appropriate progress.

Training needed for individuals assigned to the project office is comprised of basic SOM training provided by NAVSEA, DAWIA training provided by DAU, and SUPSHIP project management training (basic and advanced) provided by NAVSEA.

In some cases, specific qualifications will be required (e.g., qualification to support the ship safety requirements of NAVSEA 0905-485-6010, Manual for the Control of Testing and Ship Conditions). These qualifications may be included in the position description (PD) for specific individuals or in individual development plans (IDP) as appropriate.

Project Office Functional Training Plans

Each SUPSHIP project office will have a training plan which lists required training for assigned employees. Cross-training should be included in these plans to enhance office efficiency and afford individual long-term advancement opportunities.

5.5 Assessment

5.5.1 Background

SUPSHIP project offices are uniquely positioned to assess the execution of the contractor's programs and management. Inherent in this oversight responsibility is the ability to self-assess the project offices' capabilities and compliance with NAVSEA directives, Federal and Defense Department Acquisition Regulations, internal command instructions, and execution of basic program management tools and practices. SUPSHIPs Groton and Newport News also have unique submarine program and nuclear power oversight requirements.

The ability to conduct a valid self-assessment of one's own organization is a critical attribute for effective management and continuous improvement. Conduct of project management self-assessment of project management, due to its less structured nature, presents a challenge to those individuals assigned to conduct assessments. Thus, project managers need to carefully evaluate those individuals assigned to assessment and ensure they have sufficient experience, guidance and training opportunities to provide quality self-assessment for the project office.

Self-assessments have previously been implemented in the SUPSHIP community, but they focused primarily on supporting specific requirements for NAVSEA headquarters initiatives, such as the Management Control Program (SEA 00N) and Submarine Safety (SUBSAFE) Program (SEA 07Q). The flow-down of specific self-assessment responsibilities and determination of compliance to specific requirements by the SUPSHIP project office was generally done by ad-hoc assignments. Additionally, these recurring obligations were not included in a comprehensive process that was centrally managed.

SUPSHIP project offices should develop an integrated self-assessment process plan that incorporates:

- conduct an integrated assessment of recurring assessments in support of outside activities (including NAVSEA headquarters)
- process reviews for the key processes where the project office has primary responsibility, as outlined in section 5.2 of this chapter
- reviews of the project office inputs in support of key processes where other SUPSHIP codes have primary responsibility, as outlined in section 5.2 of this chapter

5.5.2 Recurring Assessments of the Contractor

5.5.2.1 SUBSAFE, Deep Submergence Systems and Fly-by-Wire Audit Programs

Unique to the construction and in-service support of nuclear submarines, SUPSHIPs Groton and Newport News are required to provide oversight of the contractor's SUBSAFE, Deep Submergence Systems and Fly-by-Wire programs. These programs are structured with multiple layers of technical and programmatic requirements and processes. Compliance to these standards is validated through ship specific certification audits and regularly scheduled activity functional audits. To support this proactive program, all activities, including contractors, are mandated to provide qualified auditors to support NAVSEA 07Q lead audits in accordance with the requirements of the most recently issued SUBSAFEGRAMS maintained by SEA 07Q. Auditors are required with specialization in engineering/technical, quality and management. SUPSHIP project offices shall ensure sufficient personnel are qualified in the management area to support nomination requirements mandated by NAVSEA 07Q guidelines, and qualifications are maintained for individuals with credentials in the engineering and quality areas.

5.5.2.2 Command Quality Audit Program

Chapter 9 of this manual requires regular audits of the contractor's quality system. Although the majority of this effort is performed by the Quality Assurance Department, certain aspects of the quality program monitoring and assessment requires skills of individuals assigned to the project office. Examples of specific areas of assessment include (based on ISO 9000 section reference):

- Management Commitment (Section 5.1)
- Human Resources (Section 6.2)
- Customer-Related Processes (Section 7.2)
- Analysis of Data (Section 8.4)

Assessment of the above areas often results in the assignment of portions of the annual Command Quality Audit Program to the project office. Project office personnel assigned to these audits should be properly trained as ISO9000 Auditors and ISO9000 Lead Auditors prior to being assigned applicable audits, as required by Chapter 9. The project office should also consider supplementing the Command Audit Program with project-specific audits of the contractor in areas such as:

- work completion validation
- compliance with the requirements of the Manual for the Control of Testing and Ship Conditions (NAVSEA 0905-485-6010), where applicable
- schedule compliance
- standard program management tool utilization

5.5.3 Project Self-Assessment

5.5.3.1 SUBSAFE, Deep Submergence Systems and Fly-by-Wire Internal Assessment Program

Unique to the construction and in-service support of nuclear submarine, SUPSHIPs Groton and Newport News are required to provide annual self-assessment of their management support to the SUBSAFE, Deep Submergence Systems and Fly-by-Wire programs. Specific assessment attributes are provided by NAVSEA SUBSAFE Office (SEA 07Q) in the SUBSAFE Functional Audit Guide for SUPSHIP Section I Management. The project office shall coordinate the conduct of regular self-assessments with the command SUBSAFE Project Director, as required by reference (r), NAVSEA 0924-LP-062-0010, Submarine Safety (SUBSAFE) Requirements Manual.

5.5.3.2 Support to the Command Quality Audit Program

The project office should, on a recurring basis, self-assess its ability to perform audits of the contractor across all oversight areas encompassed by the Command Quality Audit Program, and take the necessary action to ensure personnel gain the requisite experience and qualifications to be effective.

5.5.3.2.1 Responsible Process Reviews

Table 5-1 assigns the project office with primary and secondary responsibility for the 26 project specific processes described in Section 5.3. In order to assist in the conduct of regularly scheduled self-assessments, a Project Office Self-Assessment Guide has been compiled by SEA 04Z, and is posted on the iNAVSEA SharePoint website (Supervisor of Shipbuilding Project Office Self-Assessment Guide). This guide provides a comprehensive, individual checklist for each of the processes. The guide is maintained by SEA 04Z and updated periodically with input from the SUPSHIP project offices. Access to the SharePoint website is made available upon request to SEA 04Z.

5.5.3.3 Support to the Manager's Internal Control (MIC) Program

Reference (r), DoDINST 5010.40, Managers' Internal Control Program (MICP) Procedures, reference (s), OPNAVINST 5200.25E, CNO Management Control Program, and reference(t), NAVSEAINST 5200.13C, Management Control Program (MCP), require implementation

of a command level management control program, through implementation and review of Internal Controls (ICs), to ensure compliance with OMB Circular A-123. SUPSHIPs are responsible for issuing an annual Statement of Assurance (SOA), a command-wide statement used for certifying the extent to which management ICs are in place and operating effectively and also to disclose any IC deficiencies identified during the annual MIC process. IC deficiency reporting categories that are applicable to project offices are defined in NAVSEAINST 5200.13C as follows:

Major Systems Acquisition: Covers items designated as major systems and that are subject to the procedures of the Defense Acquisition Board and the Military Services acquisition review councils.

Contract Administration: Covers the fulfillment of contractual requirements including performance and delivery, quality control and testing to meet specifications, performance acceptance, billing and payment controls, justification for contractual amendments, and actions to protect the best interests of the Government.

Manufacturing, Maintenance and Repair: Covers the management and operation of in-house and contractor-operated facilities performing maintenance and repair/installation of modifications to material, equipment, and supplies. Includes depot and arsenal-type facilities as well as intermediate and unit levels of military organizations.

The project office should coordinate with the individual Command MIC Coordinator to identify ICs and plan IC review activities. To avoid any duplication of effort in meeting MIC Program requirements, the project office, in collaboration with the MIC Coordinator, should identify existing processes which determine whether or not ICs are in place and working effectively. To the maximum extent possible, the results of the project office self-assessment process described in Section 5.5.3.2.1 will be utilized to validate IC implementation and effectiveness, and to identify deficiencies where corrective actions are required.

An Assessable Unit (AU) Risk Assessment form that assesses each SUPSHIP Project Office as single AU's is included in the Project Self-Assessment process reviews discussed in section 5.5.3.2.1. Separately, additional AU's maybe assigned by a SUPSHIP as necessary to include specific areas of command interest, such as the Contractor Performance Assessment Rating System (CPARS), Project Management and Delivery/Sail Away.

5.6 Actions to Improve Project Outcome

The SUPSHIP project office is in a unique position to recommend actions to the shipbuilder to improve project execution and to educate and align the larger Government team with regard to issues associated with project execution at the shipbuilder's facility. Additionally, colocation in the shipbuilder's facility and daily interaction with key shipbuilder personnel provides the opportunity for the SUPSHIP to leverage its resident knowledge and Government team resources and expertise to:

- influence behavioral changes with the shipbuilder
- potentially improve the outcome of projects under execution

This section describes approaches and associated actions available to the SUPSHIP to proactively engage both the shipbuilder and Government teams in meaningful discussions,

both internal to the Government team and with the shipbuilder, resulting in potential improvements in project outcome.

Generally, the following assumptions can be made about the relationships between SUPSHIP, the shipbuilder and the Government team relative to methods available for improving project outcome:

1. Established shipbuilders are capable of performing the complex work associated with ship construction.

2. If the shipbuilder acknowledges and accepts a problem, he will work towards development and execution of corrective actions.

3. SUPSHIP is in the best Government position to identify and address problems with the shipbuilder, follow-up on corrective actions, and address the effectiveness of corrective actions with the shipbuilder.

4. SUPSHIP is in the best position to understand adverse impacts of Government responsible problems with project execution at the shipyard and to lead the Government team to take effective corrective actions.

5. SUPSHIP has a range of remedies to drive action by the shipbuilder and/or Government.

SUPSHIP can favorably impact the outcome of shipbuilder's projects by:

- identifying adverse conditions or trends
- achieving acceptance of the condition or trend
- obtaining commitments for causal analysis and implementation of corrective action

Likewise, SUPSHIP can mitigate Government impact on the outcome of projects by:

- early identification of issues and trends
- achieving acceptance by a Government agency to the problem
- following up to ensure the corrective actions are effective

5.6.1 Adverse Shipbuilder Trends

Because of the breadth of responsibilities inherent in shipbuilding project management, issues and problems that can negatively impact project outcome can originate from numerous sources and involve a variety of subjects. These issues may be resolved at the SUPSHIP'S functional level (quality assurance, engineering, contracts). However, when issues cannot be resolved at this level and shipbuilder management attention must be called

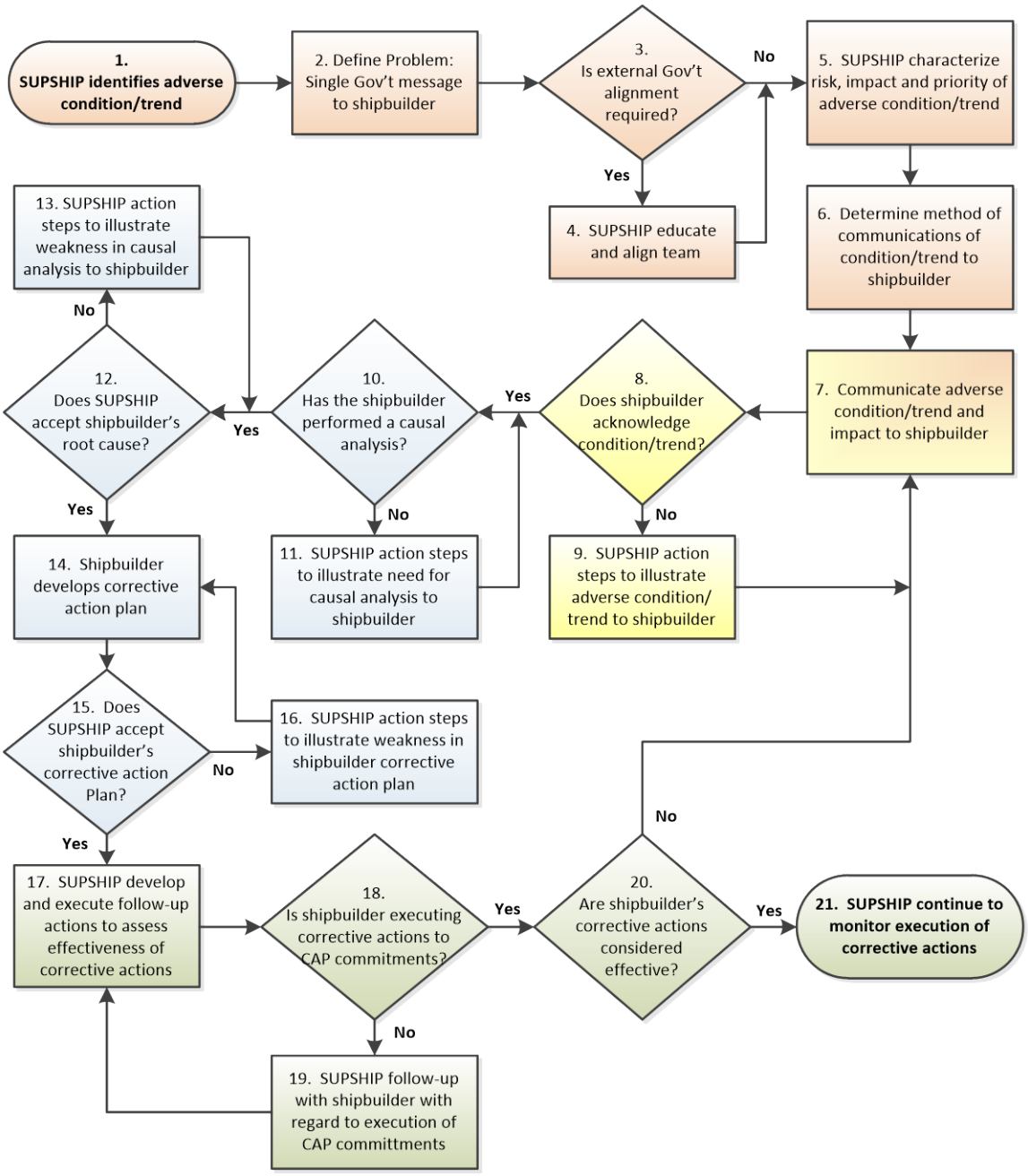
upon to correct the adverse condition or trend, it is incumbent on the SUPSHIP project office to ensure the issue is properly identified and consistently communicated.

Figure 5-3 provides the sequence of steps to be taken by the SUPSHIP in responding to an adverse trend in the shipbuilder's project performance. These steps are separated into four distinct phases:

- issue identification and achieving Government alignment
- achieving shipbuilder acceptance and ownership of the problem
- establishing shipbuilder accountability
- Government follow-up actions

These phases are described in detail in Figure 5-3 on the following page.

Figure 5-3: SUPSHIP Actions to Address Adverse Shipbuilder Trend



5.6.1.1 Issue Identification and Achieving Government Alignment (steps 1 – 7)

Introduction: The initial phase of shipbuilder responsible problem resolution relies on the identification of the adverse trend and the establishment of an aligned Government position on the presence and nature of the trend.

Discussion: The SUPSHIP project office is responsible for taking the lead in establishing the joint, aligned government position. This effort includes facilitating the internal discussions needed to ensure the SUPSHIP functions are aligned with both the problem description and the supporting data. Once the problem is explicitly identified, a risk assessment must be conducted to determine the seriousness of the issue and whether it can be resolved at the local level. If it is determined that a local solution will suffice, the project office has the lead for presentation of the issue to the shipbuilder for resolution.

If the risk assessment has determined that other Government entities (e.g., NAVSEA, PEO, technical warrant holders, certifying agents, etc.) must be either informed or involved in the solution, it is the responsibility of the project office to ensure the issue is consistently communicated. The communication path between government entities shall be between the key functional areas of the organizations and respective Government project offices and program offices. The SUPSHIP organization, led by the project office, shall present issues in a consistent manner. Doing otherwise will only result in inefficiency and churn to both SUPSHIP and outside Government activities.

Once the internal/external Government team is aligned regarding the nature and severity of the problem, it must be effectively communicated to the shipbuilder's management team. The methods used to conduct this communication range from informal verbal communication through formal contractual notification.

5.6.1.2 Achieving Shipbuilder Acceptance/Ownership of the Problem (steps 7 - 9)

Introduction: This phase of the process focuses on achieving shipbuilder acceptance and ownership of the problem.

Discussion: The central question of this phase is: Does the shipbuilder acknowledge and accept the adverse condition or trend?

a. If the response to this question is ***yes***, the process moves on to the next phase where the SUPSHIP works to establish accountability for valid causal analysis and development of effective corrective action plans by the shipbuilder.

b. If the response to the question is ***no***, SUPSHIP action is necessary to achieve shipbuilder acknowledgement and ownership of the problem.

There are numerous methods and associated vehicles or remedies for influencing the shipbuilder to take ownership of the problem. These remedies are described in paragraph 5.6.1.2.1. Some insight into the shipbuilder's capabilities, business and financial position, share line/incentive entitlement, or overall willingness to take on problem resolution is beneficial in determining which remedy is likely to be most effective. Accordingly, the SUPSHIP should assess the shipbuilder's business environment prior to choosing the approach and method of delivering the request for action.

If the shipbuilder is experiencing significant project performance issues or is not in a favorable business or financial position, remedies that are more structured or directive in nature may be required to achieve the desired shipbuilder action. Conversely, if the shipbuilder is performing favorably to the contract's terms and conditions, or is generally inclined to initiate improvement actions, there is a greater likelihood of achieving the desired action through less formal, more facilitative remedies. Additionally, consideration should be given to illustrating how the shipbuilder may benefit from actions to change project trends, such as actions that can potentially result in reduced man-hour expenditures or costs, and thereby benefit both the Government and the shipbuilder.

Once the assessment of the shipbuilder's business environment has been completed and a determination of which approach is likely to achieve the desired outcome, the SUPSHIP should prepare documentation to describe the adverse condition or trend, identify the anticipated short and long-term impact to project outcome, and request formal action by the shipbuilder.

If the SUPSHIP is unable to effectively assess the shipbuilder's willingness to accept the problem and initiate causal analysis and corrective actions, and the anticipated impact of the condition or trend is sufficient to warrant near-term implementation of corrective actions, then the SUPSHIP should explore the issue with key shipbuilder management personnel in order to determine their willingness to take on the problem.

Whenever shipbuilder resistance to problem definition, causal analysis, and development of corrective action plans is encountered, the SUPSHIP should weigh the anticipated impact of the condition or trend against the potential consequences of escalating the issue with the shipbuilder. Judgment is required to choose the right path forward and there may be value in gathering additional data and conducting additional analysis of the condition rather than escalating the issue. If escalation is selected, the issue should be revisited with a more severe remedy and possibly at a higher level in the shipbuilder's organization. If the SUPSHIP determines that the best path forward is to gather additional data and conduct additional analysis, the project office should discuss strategy development with cognizant SUPSHIP departments in order to define specific actions and develop a timeline for accomplishment. The project office should establish a target follow-up date for completing the additional analysis and re-assessing the need for shipbuilder action.

5.6.1.2.1 Shipbuilder Remedies

a. **Organizational/Process Improvement Tools/Activities** – This remedy consists of a proactive, joint working-level collaboration to identify initiatives and intervention strategies, at or across all organizational levels. The focus of this remedy is collaboration with the contractor to identify, recommend and implement corrective actions based on joint assessment of expectations, trends and recurrent concerns. Specifics of this remedy may include use of Unplanned Event (UE) critiques, Value Stream Mapping (VSM), After-Action Reviews (AARs), and Rapid Improvement Workshops (RIWs) to drive improvements. The intention is to have the shipbuilder

take actions that are in his best interest, as well as the government's, with minimal formal documentation and implementation at the lowest possible level.

b. **Peer Meeting** – This remedy includes the full spectrum of face-to-face communications between the project office and the shipbuilder's program office as outlined in section 5.3.3.1 and Appendix 5-B. This remedy focuses on requesting that the shipbuilder take actions based on reasonable, verbal discussions. The intention is to have the shipbuilder quickly take actions that are in his best interest, as well as the government's, with minimal formal documentation.

c. **Shipyard VP Meeting** – This remedy is an expansion of the communications outlined in the Peer Meetings, to include escalation from the individual project officer to higher levels of SUPSHIP management (i.e. Deputy Supervisor/Supervisor) who would lead discussions with the contractor's responsible vice presidents. These discussions may be held on a regular basis or be event-driven, and may include other agencies such as Naval Reactors, the Fleet and PEO.

d. **Nuclear Management Meeting Item** – This remedy is only applicable to nuclear shipyards. Under the provisions of the shipbuilder's nuclear license from the Department of Energy, the local Naval Reactors Representative holds formal meetings monthly with the shipbuilder's president, the Supervisor of Shipbuilding, and each of the in-yard ship commanding officers and officers in charge. Each agency can bring agenda items before the group for action by the shipbuilder, who is responsible for providing a satisfactory resolution plan and monitoring progress to resolution by formal minutes and action item tracking.

e. Formal Corrective Action (SOM Chapter 9.3.6.1)

1) **Minor Nonconformities (Method A)** - A minor nonconformity is a defect or flaw that will probably not impair the performance or life of a product or result in unsafe conditions for the user. A minor nonconformity should be corrected within 24 hours, but nonconformities not corrected within seven days shall be elevated to a Method B. Minor nonconformities that can be corrected within twenty-four hours shall be presented to responsible shipbuilder personnel for correction. These nonconformities will be described in sufficient detail to allow the shipbuilder to understand what contractual requirement is violated and to take appropriate corrective action. SUPSHIP representatives should not require a shipbuilder's written response; however, the internal SUPSHIP process shall ensure that minor nonconformities are documented and annotated with the date corrected.

2) **Major Nonconformities (Method B)** - A major nonconformity is a nonconformance that judgment and experience indicate could impair the performance or life of a product, or result in hazardous or unsafe conditions for the user. When major nonconformities are detected, or a trend of recurring minor nonconformities are noted, a CAR will be initiated citing the

specific contract requirement and a description of the nonconformity, clearly indicating how the contract requirement was violated. The CAR shall be forwarded to the appropriate level of the shipbuilder's management for action. The actual time frame for completion of shipbuilder corrective action may vary; however, prompt response to CARs is required. An interim reply may be acceptable pending the shipbuilder's completion of corrective actions. The CAR will include ship identification, unique serial number, appropriate references, statement of nonconformance, originator's signature, shipbuilder's corrective action response (including elimination of causes to prevent recurrence when appropriate), and the SUPSHIP indication of acceptability and signature. SOM Appendix 9-C provides an example of a CAR form.

3) **Critical Nonconformities (Method C) or (Method D)** - When the previous methods fail to obtain satisfactory results, or when the severity of the situation warrants, a letter shall be issued from the Project Officer or delegated authority notifying the shipbuilder's appropriate level of management that a serious problem exists and immediate management action must be taken to comply with the provisions of the contract. An electronic or hard copy of each Method C letter shall be furnished to the SUPSHIP Contracts and Quality Assurance Departments. When a Method C letter fails to obtain satisfactory results, or when the severity of the situation warrants, a Method D letter shall be issued by the Supervisor or the Contracting Officer notifying the shipbuilder's top level management (normally the shipyard president) that a serious problem exists and immediate management action must be taken to comply with the provisions of the contract. An electronic or hard copy of each Method D letter shall be furnished to the SUPSHIP Contracts and Quality Assurance Departments.

f. **SEA 00 Letter** – While this remedy is rare, it may be requested via SEA 04 when a particular issue with a shipbuilder affects NAVSEA's ability to effectively execute their warranted responsibilities (i.e. technical management, contracting, etc.). This letter will be drafted by the project office and coordinated with the Supervisor and SEA 04.

g. **ASN (RDA) Action Tasker** – While this remedy is rare, it may be requested via the PEO when a particular issue with the shipbuilder affects the PEO's or the Secretary of the Navy's ability to effectively execute overall program management responsibilities, or the issue has direct congressional implications or requires congressional action. This letter will be drafted by the project office and coordinated with the Supervisor, PEO and DASN (Ships).

h. **Project Officer Technical Letter of Direction/Stop Work Order** – This remedy consists of the Project Officer providing the shipbuilder with a formal letter recommending action be taken in order to reduce costs to both the contractor and government, or provide direction in anticipation of a formal contract change being processed. It is important to realize this action is not contractually binding upon the

contractor, and the contractor is not obligated to follow the letter; however, his continued action or inaction could potentially result in monetary loss.

i. **Contracting Officer's Letter of Concern** – This remedy is typically drafted by the project office for issuance by the ACO. It is similar to the technical letter of direction, but brings with it the full force of official notification to the shipbuilder that a negative contractual action may be taken.

j. **Contract Letter of Direction/Stop Work Order** - This remedy is typically drafted by the project office for issuance by the ACO. It is similar to the letter of concern, but officially notifies the shipbuilder of a negative contractual action being taken, provides clarification of direction, or specification action for immediate action by the shipbuilder within the provisions allowed by the contract.

k. **Contract Change/Contract Restructuring** – This remedy can be used when a change to the basic contract's provisions would result in improved shipbuilder performance or be beneficial to the government. It requires coordination with the Program Manager and PCO, as well as the full agreement of the contractor.

l. **Award Fee Board/Fee Withholding** – This remedy is covered in section 5.3.1.3.1. Contracts often include award fees and/or incentive fees to incentivize the contractor to achieve cost, schedule or other performance goals. The fee structure for these incentives is established by the PCO during pre-award negotiations. Incentivized contracts provide significant leverage to the Government in obtaining desired contractor performance and provide a strong signal to the contractor when observed performance or behavior is not meeting the Government's expectation. Incentive-type contracts are addressed further in Chapter 3, "Contracting and Contract Administration." Incentive Evaluation Board (IEB) members are designated by the Program Manager (PM) and Supervisor. Typically, the PM or Supervisor chairs the IEB. The Fee Determining Official is normally a designated NAVSEA representative who considers the Board's recommendations and makes the final determination as to the percentage (0 – 100%) of the fee pool that is justified to be awarded based on the contractor's performance. Project Office leadership has the responsibility to facilitate the selection of SUPSHIP testifiers and for developing the means by which the testifiers will present their assessments to the IEB. The contract defines the categories and overall criteria for assessments. Project office personnel will work closely with their PM counterparts in establishing a joint process to conduct the IEB using the defined categories and criteria.

m. **Contractor Performance Assessment Reporting System (CPARS)** - this remedy is covered in section 5.3.1.3.2. FAR 42.15 requires evaluation of contractor performance for contracts of specified values. The Department of Navy CPARS Guide and the Department of Defense CPARS Guide ensures that contractor performance data is current and available for use in source selections throughout the Department of Defense. CPARS assesses contractors' performance and provides a record of both positive and negative performance on a particular contract. Contracts

will be evaluated using CPARS on an annual basis, or more frequently, as required by the terms of the specific contract. The NAVSEA Program Manager and SUPSHIP project office are typically assigned as the command focal points for collecting feedback of contractor performance input into CPARS. Assignment of specific contract reporting within CPARS is negotiated between the PEO/NAVSEA PM and the SUPSHIP project office based on the activity that has the best knowledge of the shipbuilder's performance and the applicable up-line reporting responsibilities. When SUPSHIP is assigned the CPARS reporting responsibilities, the Project Officer is typically assigned as the Assessing Official and the ACO is assigned as the Reviewing Official. Details of these specific duties are provided in the CPARS guides. When assigned as the Assessing Official, the Project Officer should identify supporting representatives as necessary to provide a comprehensive and complete evaluation process as noted in the CPARS Guides. Past Performance Information (PPI) surveys should be utilized from other departments and commands as appropriate. At no time may support contractors contribute to the development of CPARS ratings and comments. Performance evaluations are typically submitted by the following personnel:

1) Ship Coordinator

2) Project Manager/Production Controller

3) Cognizant Contract Specialist

4) Cognizant Quality Assurance Specialist

5) Cognizant Project Engineer

6) Ship's Force (commanding officer or designated Availability Coordinator)

The Assessing Official should work closely with the shipbuilder's representative to ensure access to CPARS and to ensure timely turnaround of inputs. Additionally, the Assessing Official may have to assist the Reviewing Official in the resolution of disagreements presented by the contractor representative's input in order to finalize the individual contract rating determination.

n. **Fee Reduction Letter** – This remedy is administered by the ACO based on the recommendation of the project office. It is to be used when an issue is of a sufficient level to indicate that the shipbuilder is no longer performing in good faith and justification is no long in place to allow for payment of basic contract fee. The associated withholding of fee payments may be assessed on a partial or complete basis.

o. **Withholding of Progress Payment (partial/full)** - This remedy is administered by the ACO, based on the recommendation of the project office, when an issue is of a sufficient level to indicate that the shipbuilder is no longer correctly performing the

contract and justification is no longer in place to allow for payment of basic contract progress payments. The associated withholding of payments may be assessed on a partial or complete basis.

p. **Contract Termination** – SOM section 3.15 outlines the provisions of contract terminations which may be either a Termination for Convenience or a Termination for Default, depending on the nature of the termination. A contract may be terminated for convenience for any reason that the Contracting Officer determines would be in the best interest of the Government. Terminations for default are also performed when it is in the Government's best interest, but the reason for the termination is based on the contractor's actual or anticipated failure to perform contractual obligations. This is a multiple step process that begins as outline in SOM Chapter 3.15.1. Although FAR Part 49 grants Contracting Officers the authority to suspend or terminate contracts when it is in the Government's interest, NCH 49.101 does not authorize SUPSHIP Contracting Officers to terminate completely or partially any new construction or ship repair contract. All determinations for default, cure notices, and show cause letters must be approved by NAVSEA 02/02B. ACO authority to terminate a ship repair contract requires NAVSEA 024 concurrence prior to a termination for convenience (whole or in part) action, and NAVSEA 02 approval for termination for default action. The ACO may terminate for convenience, with approval of the CCO, locally issued job orders. NAVSEA 02 Division Director or FPO CCO approval is required prior to partial or complete termination for convenience on non-major program contracts.

5.6.1.3 Establishing Shipbuilder Accountability (steps 10 – 16)

Introduction: This phase of the SUPSHIP action plan process addresses steps to be taken by the SUPSHIP to establish shipbuilder ownership and accountability of the problem and the initiation of appropriate corrective and preventive actions.

Discussion: The following discussion may be used to help accomplish blocks 10 through 16 of Figure 5-3. These steps pose three fundamental questions in which SUPSHIP project offices take the lead for evaluation. These questions are:

- Has the shipbuilder performed a causal analysis?
- Does SUPSHIP accept the shipbuilder’s identified root causes?
- Has the shipbuilder developed a comprehensive corrective action plan?

Shipbuilders should use root cause analysis (RCA) to determine causal relationships for a myriad of problems, symptoms of problems and defects. Project office personnel need to assess the validity of the shipbuilder’s root cause analysis and determine if the proposed remedy properly addresses the stated deficiency. There are several fundamental principles of root cause analysis which should be present. Some helpful questions to use in scrutinizing the acceptability of the RCA include:

- Is the problem statement clearly defined?
- Is more than one causal factor cited? Failures of most systems in an industry as complex as shipbuilding will usually have a primary cause and several secondary causal factors.
- Was an investigation performed in concert with the RCA? Does the RCA contain the basic elements that one would see in an investigation report? (i.e., was there a list of findings, was a timeline presented, were possible causes listed, and were findings/corrective actions identified?)
- Was the RCA the product of a team or organization?

From the perspective of process improvement practitioners, the term “root cause analysis” is a generic term used to describe approaches for identifying underlying causes of a specific problem or situation. There is no universal tool or specific set of tools, nor is there a universal methodology for conducting root cause analysis. Rather, the experienced practitioner selects a methodology most appropriate to the situation. These methodologies may include The Five Whys, Cause and Effect Diagram, Ishikawa or fishbone diagrams, Pareto analysis, current reality tree (from Goldratt), Failure Modes and Effects Analysis (FMEA), investigations, critiques, NASA MORT, etc. A root cause analysis often employs a number of tools in combination to identify the critical factors leading to a problem or a set of problems. Many approaches can use complex tools, ranging from elaborate matrices to advanced statistical analysis. What SUPSHIP can do, in an oversight role, is to determine if the shipbuilder’s root cause analysis is thorough and sufficiently rigorous relative to the risk associated with the particular problem being analyzed.

A simple methodology for conducting an RCA is:

1) Define the problem.
2) Gather data and develop a timeline.
3) Ask "why" and identify the causes associated with each step in the sequence towards the defined problem.
4) Classify causes into causal factors that relate to an event in the sequence, and root causes, that interrupted that step of the sequence chain.
5) When there are multiple root causes, reveal all and label as primary or secondary.
6) Identify corrective actions that will prevent recurrence of the problem.
7) Identify solutions that effectively prevent recurrence with reasonable certainty and do not introduce other new, unforeseen problems.
8) Implement the recommended root cause corrections.

9) Ensure effectiveness by observing the implemented recommendation solutions and providing metrics.

10) Evaluate the metrics at some periodicity to ensure sustainment.

Once the shipbuilder has conducted a RCA and documented the root causes of the adverse condition or trend, corrective actions are identified to address each of the root causes. The shipbuilder should develop a detailed Corrective Action Plan (CAP) that documents each of the actions to be undertaken and establish a path to arresting the adverse condition or trend. SUPSHIP project offices are the organizational lead for evaluating compliance in this area. The question to evaluate is: Does SUPSHIP accept the shipbuilder's CAP?

The following list contains the elements of a good CAP:

- A clear listing of the required tasks outlined with predecessor tasks and logical linkages established
- Responsible party listed for each task (normally a person not a collective or organization for accountability purposes)
- Estimated completion date of each task
- Expected duration of each task
- Resources required to accomplish each task
- Metrics established to determine if the plan is in control and achieving the expected improvements

SUPSHIP project offices lead the overall SUPSHIP effort to scrutinize contractor plans and identify risks or weaknesses to the contractor. This requires communication of the CAP and feedback to the shipbuilder before the plan is implemented (unless the plan has some "Just Do It" elements). This communication link is critical. While some CAP's achieve success upon implementation and execution, project offices should expect that this can develop into an iterative process, where follow-on CAPs may be required to achieve the desired result.

5.6.1.4 Government Follow-up Actions (steps 17 – 21)

Introduction: This phase of the process addresses the follow-up actions of the government to ensure the problem is resolved as agreed upon. It also determines if the corrective action has the desired result and is effective in resolving the identified problem or trend.

Discussion: This phase of the process is centered on the question: How does SUPSHIP verify that the shipbuilder is following his Corrective Action Plan (CAP) and that corrective actions are effective?

a. One method of assessing the shipbuilder's CAP is by leveraging reporting requirements. The shipbuilder would be required to provide objective quality evidence (OQE) and or periodic status of the corrective action plan or implementation.

b. Another method of assessing the shipbuilder's CAP is by physical verification. SUPSHIP can recommend additional quality inspection checkpoints during the implementation of the corrective action. This will allow for tighter control of the shipbuilder's plan and government accountability for the implementation. SUPSHIP can also perform pulse audits to periodically verify compliance with the corrective action plan and verify that the documentation is corrected to prevent the problem from reoccurring.

c. The project office can review contractor and government data to look for trends. These trends can potentially show the effects of the corrective actions and whether the corrective action is having the predicted effect. Looking at trend data can show if the contractor is performing as predicted in a stable data environment.

5.6.2 Adverse Government Trends

The SUPSHIP is in a unique position as the Government team on-site representative to identify, mitigate and resolve adverse government trends. Project issues and problems can originate from numerous sources outside the shipbuilder's control but under the responsibility of the larger government team. Projects of the complexity overseen by SUPSHIPs involve many systems, material components, information transfer, and support services overseen by other government agencies and sub-contractors. Most often these issues are under the responsibility of the Program Manager. The SUPSHIP, however, is in a key position to assist in issue identification impacting the shipbuilder, overall program execution in support of ship delivery and activation, and to provide resolution based on its strong familiarity with the shipbuilder's current practices and past performance.

It is the responsibility of the project office to ensure issues are presented and resolved in a consistent manner to foster efficient relationships with outside Government activities. This effort involves formal communication with these activities, particularly when they are not adequately supporting contract requirements and their own project commitments.

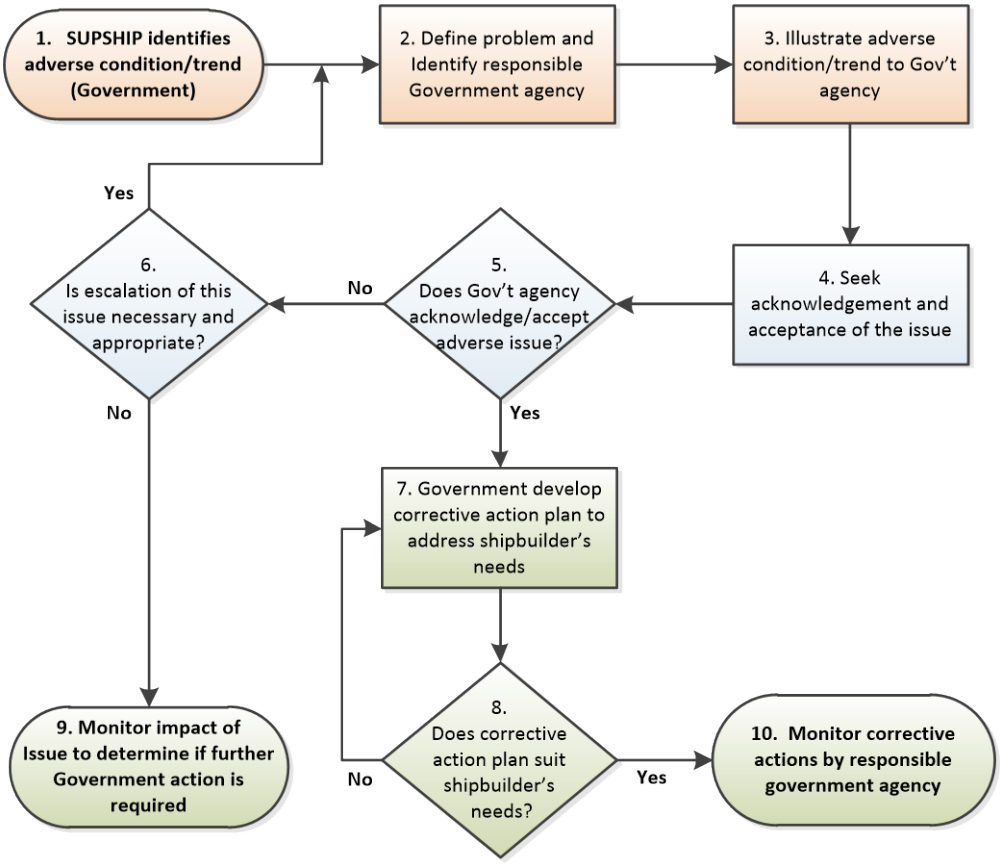
It is the responsibility of the project office to:

- Ensure issues are presented and resolved in a consistent manner
- Foster efficient, cooperative relationships with outside Government activities
- Formally communicate with Government activities relative to their impact on the shipbuilder in support of commitments and contract requirements

- Assist in achieving Government activity acceptance and ownership of problems to ensure the problem is resolved as agreed upon by all parties
- Determine that corrective action has the desired result and is effective in resolving the identified problem

Figure 5-4 provides the sequence of steps to be taken by the SUPSHIP in responding to an adverse Government responsible trend. The phases of this SUPSHIP action sequence are described in detail below.

Figure 5-4: SUPSHIP Actions to Address Adverse Government Trends



5.6.2.1 Issue Identification (steps 1 – 3)

Introduction: The initial phase of Government responsible problem resolution relies on the identification of the presence and nature of an adverse condition or trend, and the establishment of which Government agency has responsibility for correcting the situation.

Discussion: The breadth of responsibilities inherent in shipbuilding project management means that issues can originate from numerous sources and can touch on broad aspects of project execution. Most often, these issues will be identified by the contractor and resolved at the SUPSHIP's functional level (quality assurance, engineering, contracts). However, when issues cannot be resolved at this level, and government management attention must be called upon to correct the adverse condition or trend, it is incumbent on the project office to identify the applicable government agency to ensure the issue is properly identified and corrected. In many cases, this requires a pro-active effort on the part of the project office to coordinate and communicate the actions to resolve the situation. Additionally, the project office is obligated to communicate contractor schedule variation (early or late) to all government agencies in order to support overall success and just-in-time delivery of government responsible items to the shipbuilder.

The project office is responsible for taking the lead in identification of conditions and trends that are caused by government agencies. This effort includes facilitating the internal government discussions needed to ensure SUPSHIP and the responsible government agency are aligned with regard to both the problem description and the supporting data. Examples of issues include:

- Delivery of government furnished information (GFI), typically documented in the integrated master schedule
- Delivery of government furnished material (GFM), typically documented in an attachment to the applicable contract (Schedule A)
- Delivery of government furnished services, typically documented in an attachment to the applicable contract (Schedule B)
- Delivery of government furnished equipment (GFE), typically for supporting installation of GFM, or performing unique manufacturing or installations
- Delivery of government furnished property (GFP), typically for supporting testing
- Coordination of Alteration Installation Teams (AITs)
- Coordination of government inspection and certification team schedules, reports, and corrective actions
- Continuity of funding for incrementally funded contracts, or implementation of follow-on contract actions (i.e. annual authorization for multi-year contracts)

Conditions and trends may be communicated by all of the key functional areas of the organization to their respective counterparts within the Government. However, the SUPSHIP organization, led by the project office, shall ensure issues are presented in a consistent manner. Doing otherwise will only result in inefficiency and churn between SUPSHIP and outside Government agencies. When there is potential for impacting the success of a

project, the project office must ensure the applicable government agency is formally notified of the significant conditions or negative trends. This includes situations where the government agency is not staying current with assigned actions, delivery dates, or is insufficiently involved in providing information and sharing knowledge. It is incumbent on the project office to understand and formally communicate to government agencies their impact on the contractor when they are not supporting commitments and contract requirements. In many cases, this situation results in a liability to the government, where the contractor can initiate a claim for delay and disruption for failing to provide required information or material.

5.6.2.2 Achieving Government Acceptance/Ownership of the Problem (steps 4 - 6)

Introduction: This phase of the process for addressing adverse conditions or trends by the Government is focused on achieving Government acceptance and ownership of the problem.

Discussion: The central question for this is: Does the government acknowledge and accept the adverse condition or trend?

a. If the response to this question is ***yes***, the process moves on to the next phase where the SUPSHIP works to establish accountability for valid causal analysis and development of effective corrective action plans by the cognizant activity.

b. If the response to the question is ***no***, action is necessary by the SUPSHIP to achieve acknowledgement and ownership of the problem by the cognizant activity.

There are numerous methods and associated vehicles and remedies for influencing a government activity to take ownership of the problem. These remedies are described in paragraph 5.6.2.2.1. Some insight into the agency's capabilities, financial position or overall willingness to take on problem resolution is beneficial in determining which remedy is likely to be most effective at achieving a commitment from the activity to initiate problem resolution actions. Accordingly, the SUPSHIP should assess the environment the activity is operating in prior to choosing the approach and method of delivering the request for action.

5.6.2.2.1 Government Remedies

a. **Organizational/Process Improvement Tools/Activities** – This remedy consists of use of a proactive, joint working-level collaboration to identify initiatives and intervention strategies, at or across all organizational levels. The focus of this remedy is collaboration with the Government activity to identify, recommend and implement corrective actions based on joint assessment of expectations, trends and recurrent concerns. Specifics of this remedy would include use of Value Stream Mapping (VSM), "hot-wash"/After-Action Reviews (AARs), or Rapid Improvement Workshops (RIWs) to drive improvements. The intention is to have the cognizant agency take actions that are in its best interest, as well as the project's, with minimal formal documentation and to institute change at the lowest possible level.

b. **Peer Meeting** – This remedy includes the full spectrum of unwritten communications between the project office and the collaborating Government activity. The focus of this remedy is on requesting the activity to take actions based on reasonable, verbal discussions. The intention is to have the cognizant activity take actions that are in its best interest, as well as the program's, with minimal formal documentation.

c. **Senior Manager Meeting** – This remedy is an expansion of the communications outlined in the Peer Meetings, to include escalation from the individual Project Officer to higher levels of SUPSHIP management (i.e. Deputy Supervisor/Supervisor) who would lead discussions with their peer at the government activity and/or the Program Manager. These discussions may be held on a recurring basis, or be event-driven, and may also include other agencies such as Naval Reactors and the Fleet.

d. **Project Officer Technical Letter of Direction**– This remedy consists of the Project Officer providing the Government agency a formal letter recommending action be taken to reduce costs to both the shipbuilder and government, or provide preliminary direction in anticipation of formal direction being processed. It is important to realize this action is not contractually binding, and the agency is not obligated to follow the letter.

5.6.2.3 Follow-up Actions (steps 7-10)

Introduction: This phase of the process addresses the follow-up actions of SUPSHIP to ensure the problem is resolved as agreed upon. It also determines if the corrective action has the desired result, and is effective in resolving the identified condition or trend. This phase will require communications not only with the responsible Government agency but also with the shipbuilder to ensure that the outcome is acceptable to all parties, and has desired outcome.

Discussion: If the responsible Government agency acknowledges the adverse condition, that agency will develop a Corrective Action Plan (CAP). The project office can assist the agency in developing the plan by providing key information (technical, schedule cost, etc.), but the responsible Government agency should develop the CAP.

After the CAP has been developed, the project office is responsible for communicating the plan to the shipbuilder to determine if the plan will resolve the issue. The project office should engage the shipbuilder to determine the technical, schedule and/or cost impact of the CAP. The CAP may need to be reworked by the responsible Government agency to accommodate shipbuilder needs. It is the role of the project office to bridge the communications gap between the responsible Government agency and the shipbuilder. It is not uncommon for several iterations to occur before an acceptable plan is developed. Early communication between all parties can help in reducing the churn in this process.

Once an acceptable CAP is developed, the project office must determine if the plan will have the desired results. This will require analysis of the plan (possibly with the shipbuilder) to determine if the plan will have desired outcome. Depending on the complexity of the issue,

the full impact may not be understood immediately. The project office is responsible for monitoring the execution and results of the corrective action. Depending on the issue, there are a number of monitoring techniques that can be used to determine if the CAP has been successful. A few examples of monitoring techniques include:

- Earned Value: has the corrective action impacted EV data?
- Schedule Variance: has the corrective action impacted any of the shipbuilder schedules?
    - Production Schedule: erection schedule, compartment completion schedule
    - Test Schedule: test procedure generation, test program execution
    - Engineering Product Schedule: drawing schedules, production work packages
    - ILS Product Schedule: tech manual delivery, LSI package delivery
- Technical Reviews: Does the corrective action plan improve the technical data produced?
- Funding: Is the contract adequately funded?

If the responsible Government agency does not acknowledge the adverse condition or trend and elevation of the issue is not warranted, then it is the responsibility of the project office to continue to monitor the issue. It may be decided that resolving the issue would not be cost effective or disruptive. The project office is responsible for monitoring the issue to determine that it does not impact overall success of the project, or lead to new problems. The project office will continue to monitor the issue and report any impact of the issue to the appropriate stakeholders (i.e. Program Manager). If further action is required, then the process will start over.

Appendix 5-A: SUPSHIP Departmental Responsibilities for Contract Administration Functions Under FAR 42.302 (a), (b), and DFAR 242.302

Item	**FAR 42.302 (a)**	**Bath** Responsible Code (Primary in bold)	**Groton** Responsible Code (Primary in bold)	**Gulf Coast** Responsible Code (Primary in bold)	**Newport News** Responsible Code (Primary in bold)
(1)	Review the contractor's compensation structure.	**Contracts (Code 400)**	**Contracts (Code 400)**	**Contracts (Code 400)**	**Contracts (Code 400)**
(2)	Review the contractor's insurance plans.	Contracts (Code 400)	Contracts (Code 400), and Code 15X	Contracts (Code 400)	Contracts (Code 400)
(3)	Conduct Post-Award Orientation Conferences.	Contracts (Code 400)	Contracts (Code 400), and Code 15X	Contracts (Code 400)	Contracts (Code 400)
(4)	Review and evaluate contractors' proposals under Subpart 15.4 and, when negotiations will be accomplished by the contracting officer, furnish comments and recommendations to that officer.	Contracts (Code 400), and Code 15X	Contracts (Code 400), and Code 15X	Contracts (Code 400), Code 117 & 15X	Contracts (Code 400) and Codes 200 and 15X
(5)	Negotiate forward pricing rate agreements (see 15.407-3).	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(6)	Negotiate advance agreements applicable to treatment of costs under contracts currently assigned for administration (see 31.109).	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(7)	Determine the allowability of costs suspended or disapproved as required (see Subpart 42.8), direct the suspension or disapproval of costs when there is reason to believe they should be suspended or disapproved, and approve final vouchers.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(8)	Issue Notices of Intent to Disallow or not Recognize Costs (see Subpart 42.8).	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)

Item	**FAR 42.302 (a)**	**Bath** Responsible Code (Primary in bold)	**Groton** Responsible Code (Primary in bold)	**Gulf Coast** Responsible Code (Primary in bold)	**Newport News** Responsible Code (Primary in bold)
(9)	Establish final indirect cost rates and billing rates for those contractors meeting the criteria for contracting officer determination in Subpart 42.7.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(10)	Attempt to resolve issues in controversy, using ADR procedures when appropriate (see Subpart 33.2); prepare findings of fact and issue decisions under the Disputes clause on matters in which the administrative contracting officer (ACO) has the authority to take definitive action.	Contracts (Code 400), and Codes 15X, 130 and 200	Contracts (Code 400), and Codes 15X, 130	Contracts (Code 400), Code 117 & Codes 15X	Contracts (Code 400), Codes 15X, 130 and 200
(11)	In connection with Cost Accounting Standards (see 30.601 and 48 CFR Chapter 99 (FAR Appendix)) - (i) Determine the adequacy of the contractor's disclosure statements; (ii) Determine whether disclosure statements are in compliance with Cost Accounting Standards and Part 31; (iii) Determine the contractor's compliance with Cost Accounting Standards and disclosure statements, if applicable; and (iv) Negotiate price adjustments and execute supplemental agreements under the Cost Accounting Standards clauses at 52.230-2, 52.230-3, 52.230-4, 52.230-5 and 52.230-6.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(12)	Review and approve or disapprove the contractor's request for payments under the contractor payments or performance-based payments clauses.	Contracts (Code 400), and Code 15X	Contracts (Code 400), and Code 15X	Contracts (Code 400), Code 117 & Codes 15X	Contracts (Code 400), Code 15X

Item	**FAR 42.302 (a)**	**Bath** Responsible Code (Primary in bold)	**Groton** Responsible Code (Primary in bold)	**Gulf Coast** Responsible Code (Primary in bold)	**Newport News** Responsible Code (Primary in bold)
(13)	Make payments on assigned contracts when prescribed in agency acquisition regulations.	Not-Applicable	Not-Applicable	Code 700 (Comptroller)	Not-Applicable
(14)	Manage special bank accounts.	Not-Applicable	Not-Applicable	Not-Applicable	Not-Applicable
(15)	Ensure timely notification by the contractor of any anticipated overrun or under run of the estimated cost under cost-reimbursement contracts.	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Code 15X	Contracts (Code 400), Code 117 & Codes 15X	Contracts (Code 400)
(16)	Monitor the contractor's financial condition and advise the contracting officer when it jeopardizes contract performance.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(17)	Analyze quarterly limitation on payments statements and recover overpayments from the contractor.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(18)	Issue Tax Exemption forms.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(19)	Negotiate forward pricing rate agreements (see 15.407-3).	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(20)	For classified contracts, administer those portions of the applicable industrial security program delegated to the ACO (see Subpart 4.4).	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Code 15X	Not-Applicable	Not-Applicable
(21)	Issue work requests under maintenance, overall and modification contracts.	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Code 15X	N/A (only New Construction)	Financial Management Code 700
(22)	Negotiate prices and execute supplemental agreements for spare parts and other items selected through provisioning procedures when prescribed by agency acquisition regulations.	Contracts (Code 400)	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Code 500	Contracts Code 400

Item	**FAR 42.302 (a)**	**Bath** Responsible Code (Primary in bold)	**Groton** Responsible Code (Primary in bold)	**Gulf Coast** Responsible Code (Primary in bold)	**Newport News** Responsible Code (Primary in bold)
(23)	Negotiate and execute contractual documents for settlement of partial and complete contract terminations for convenience, except as otherwise prescribed by Part 49.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(24)	Negotiate and execute contractual documents settling cancellation charges under multi-year contracts.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Not-Applicable
(25)	Process and execute novation and change of name agreements under Subpart 42.12.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(26)	Perform property administration (see Part 45).	Contracts (Code 400)	Contracts (Code 400)	Code 400 & Code 500 (FISCJAXDET)	Logistics (Code 500)
(27)	Reserved	Not-Applicable	Not-Applicable	Not-Applicable	Not-Applicable
(28)	Perform necessary screening, redistribution and disposal of contractor inventory.	Contracts (Code 400) and Codes 15X, 500	Contracts (Code 400) and Codes 15X, 500	Code 400 & Code 500 (FISCJAXDET)	Logistics (Code 500)
(29)	Issue contract modifications requiring the contractor to provide packing, crating and handling services on excess Government property. When the ACO determines it to be in the Government's interests, the services may be secured from a contractor other than the contractor in possession of the property.	Contracts (Code 400)	Contracts (Code 400) and Codes 500, 15X	Contracts (Code 400) and Codes 500 (FISCJAX), 117, 15X	Contracts (Code 400) and Logistics (Code 500)

Item	**FAR 42.302 (a)**	**Bath** Responsible Code (Primary in bold)	**Groton** Responsible Code (Primary in bold)	**Gulf Coast** Responsible Code (Primary in bold)	**Newport News** Responsible Code (Primary in bold)
(30)	When contractors request Government--(i) Evaluate the contractor's requests for Government property and for changes to existing Government property and provide appropriate recommendations to the contracting officer; (ii) Ensure required screening of Government property before acquisition by the contractor; (iii) Approve use of Government property on a non-interference basis in accordance with the clause at 52.245-9, Use and Charges; (iv) Ensure payment by the contractor of any rental due; and (v) Ensure reporting of items no longer needed for Government production.	Contracts Code 400, and Codes 15X, 500	Contracts Code 400, and Codes 15X, 500	Code 400 & Code 500 (FISCJAXDET)	Contracts Code 400, and Code 500
(31)	Perform production support, surveillance and status reporting, including timely reporting of potential and actual slippages in contract delivery schedules.	Project Office (Codes 15X), and Codes 200, 300, & 400	Project Office (Codes 15X), and Codes 200, 300, & 400	Project Office (Codes 117 & 15X), and Code 400 (Work Progressing Group)	Project Office (Code 160) and Codes 15X, 200, 300, 400, & 500
(32)	Perform Pre-Award surveys (see Subpart 9.1).	Contracts (Code 400) and Codes 500, 15X	Contracts (Code 400) and Codes 500, 15X	Contracts (Code 400) and Codes 200, 500, 117 & 15X	Business Review Code 160 and Codes 15X, 200, 300, & 400
(33)	Advise and assist contractors regarding their priorities and allocations responsibilities and assist contracting offices in processing requests for special assistance and for priority ratings for privately-owned capital equipment.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)

Item	**FAR 42.302 (a)**	**Bath** Responsible Code (Primary in bold)	**Groton** Responsible Code (Primary in bold)	**Gulf Coast** Responsible Code (Primary in bold)	**Newport News** Responsible Code (Primary in bold)
(34)	Monitor contractor industrial labor relations matters under the contract; apprise the contracting officer and, if designated by the agency, the cognizant labor relations advisor, of actual or potential labor disputes; and coordinate the removal of urgently required material from the strikebound contractor's plant upon instruction from, and authorization of, the contracting officer.	Contracts (Code 400) and Code 130	Contracts (Code 400) and Code 130	Contracts (Code 400) and Code 180	Contracts (Code 400) and Code 160
(35)	Perform traffic management services, including the issuance and control of Government bills of lading and other transportation documents.	FISC Norfolk Detachment SUPSHIPBA (Code 500) and Code 400	Logistics (Code 500)	Logistics (Code 500) (FISCJAX)	Logistics (Code 500)
(36)	Review the adequacy of the contractor's traffic operations.	FISC Norfolk Detachment SUPSHIPBA (Code 500) and Code 400	Logistics (Code 500)	Logistics (Code 500) (FISCJAX)	Logistics (Code 500)
(37)	Review and evaluate preservation, packaging and packing.	FISC Norfolk Detachment SUPSHIPBA (Code 500, and Code 400)	Logistics (Code 500)	Logistics (Code 500) (FISCJAX)	Logistics (Code 500)
(38)	Ensure contractor compliance with contractual quality assurance requirements (see Part 46).	Quality Assurance (Code 300), and Codes 400, 15X, 200	Quality Assurance (Code 300), and Codes 400, 15X, 200	Quality Assurance (Code 300), and Codes 400, 117, 15X, 200	Quality Assurance Code 300 and Contracts Code 400
(39)	Ensure contractor compliance with contractual safety requirements.	Environmental and Safety Office (Code 140), Code 15X and C300	Environmental and Safety Office (Code 140) and Code 15X	Environmental and Safety Office (Code 140) and Code 117, 15X, 200	Environmental and Safety Office (Code 140) and Code 400

Item	**FAR 42.302 (a)**	**Bath** Responsible Code (Primary in bold)	**Groton** Responsible Code (Primary in bold)	**Gulf Coast** Responsible Code (Primary in bold)	**Newport News** Responsible Code (Primary in bold)
(40)	Perform engineering surveillance to assess compliance with contractual terms for schedule, cost and technical performance in the areas of design, development and production.	Engineering (Code 200) and Codes 400, 15X	Engineering (Code 200) and Codes 400, 15X	Engineering (Code 200) and Codes 400, 117, 15X	Engineering (Code 200) and Code 400
(41)	Evaluate for adequacy and perform surveillance of contractor engineering efforts and management systems that relate to design, development, production, engineering changes, subcontractors, tests, management of engineering resources, reliability and maintainability, data control systems, configuration management, and independent research and development.	Engineering (Code 200) and Codes 15X, 400	Engineering (Code 200) and Codes 15X, 400	Engineering (Code 200) and Codes 400, 117, 15X	Engineering (Code 200), Codes 15X, 400
(42)	Review and evaluate for technical adequacy the contractor's logistics support, maintenance and modification programs.	Quality (Code 300) and Codes 15X, 400, 200	Contracts (Code 200) and Codes 15X, 400	Logistics (Code 500) and Codes 117, 15X, 200	Contracts (Code 400)
(43)	Report to the contracting office any inadequacies noted in specifications.	Project Office (Code 15X) and Codes 200, 500, 300, 140, 190	Project Office (Code 15X) and Codes 200, 500, 300, 140, 190	Project Office (Code 117, 15X) and Codes 200, 500	Contracts (Code 400) and Codes 200, 15X, 500, 300, 140, 190
(44)	Perform engineering analyses of contractor cost proposals.	Engineering (Code 200) and Codes 400, 15X	Contracts (Code 400) and Codes 200, 15X	Contracts (Code 400) and Codes 200, 117, 15X	Contracts Code 400 and Code 200, 15X
(45)	Review and analyze contractor proposed engineering and design studies and submit comments and recommendations to the contracting office, as required.	Engineering (Code 200) and Codes 400, 15X	Contracts (Code 400) and Codes 200, 15X	Contracts (Code 400) and Codes 200, 117, 15X	Contracts Code 400 and Code 200, 15X

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(46)	Review engineering change proposals for proper classification, and when required, for need, technical adequacy of design, producibility, and impact on quality, reliability, schedule and cost; submit comments to the contracting office.	Engineering (Code 200) and Codes 400, 15X	Contracts (Code 400) and Codes 200, 15X, 190	Contracts (Code 400) and Codes 200, 117, 15X	Contracts Code 400 and Code 200, 15X
(47)	Assist in evaluating and make recommendations for acceptance or rejection of waivers and deviations.	Engineering (Code 200), and Codes 15X, 400	Engineering (Code 200), and Codes 15X, 400	Engineering (Code 200), and Codes 117, 15X	Engineering (Code 200), Codes 15X, 400
(48)	Evaluate and monitor the contractor's procedures for complying with procedures regarding restrictive markings on data.	Security (Code 940) and Codes 15X, 200	Security (Code 190) and Codes 15X, 200	Security (Code 190) and Codes 15X, 200	Logistics (Code 500)
(49)	Monitor the contractor's value engineering program.	Engineering (Code 200)	Project Office (Code 15X) and Code 200	Engineering (Code 200) and Codes 117, 15x	Engineering (Code 200)
(50)	Review, approve or disapprove, and maintain surveillance of the contractor's purchasing system (see Part 44).	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(51)	Consent to the placement of subcontracts.	Contracts (Code 400)	Contracts (Code 400) and Code 15X	Contracts (Code 400)	Contracts (Code 400)
(52)	Review, evaluate and approve plant or division-wide small, small disadvantaged and women-owned small business master subcontracting plans.	Contracts (Code 400)	Contracts (Code 400) and Code 15X	Contracts (Code 400)	Contracts (Code 400)

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(53)	Obtain the contractor's currently approved company, or division-wide plans for small, small disadvantaged and women-owned small business subcontracting for its commercial products, or, if there is no currently approved plan, assist the contracting officer in evaluating the plans for those products.	Contracts (Code 400)	Contracts (Code 400) and Code 15X	Contracts (Code 400)	Contracts (Code 400)
(54)	Assist the contracting officer, upon request, in evaluating an offeror's proposed small, small disadvantaged and women-owned small business subcontracting plans, including documentation of compliance with similar plans under prior contracts.	Contracts (Code 400)	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Code 117, 15X	Contracts (Code 400)
(55)	By periodic surveillance, ensure the contractor's compliance with small, small disadvantaged and women-owned small business subcontracting plans and any labor surplus area contractual requirements; maintain documentation of the contractor's performance under and compliance with these plans and requirements; and provide advice and assistance to the firms involved, as appropriate.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(56)	Maintain surveillance of flight operations.	Not Applicable	Not Applicable	Not Applicable	Not Applicable
(57)	Assign and perform supporting contract administration.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(58)	Ensure timely submission of required reports.	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Code 117, 15X	Contracts (Code 400)

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(59)	Issue administrative changes, correcting errors or omissions in typing, contractor address, facility or activity code, remittance address, computations which do not require additional contract funds and other such changes (see 43.101).	Contracts (Code 400)	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Code 117, 15X	Contracts (Code 400)
(60)	Cause release of shipments from contractor's plants according to the shipping instructions. When applicable, the order of assigned priority shall be followed; shipments within the same priority shall be determined by date of the instruction.	FISC Norfolk Detachment SUPSHIPBA (Code 500), and Contracts (Code 400)	FISC Norfolk Detachment SUPSHIPGR (Code 500), and Contracts (Code 400)	FISCJAX Detachment SUPSHIPGC (Code 500), and Contracts (Code 400)	FISC Norfolk Detachment SUPSHIPNN (Code 500), Contracts (Code 400)
(61)	Obtain contractor proposals for any contract price adjustments resulting from amended shipping instructions. Review all amended shipping instructions on a periodic, consolidated basis to ensure that adjustments are timely made. Except when the ACO has settlement authority, the ACO shall forward the proposal to the contracting officer (PCO) for contract modification. The ACO shall not delay shipments pending completion and formalization of negotiations of revised shipping instructions.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(62)	Negotiate and/or execute supplemental agreements, as required, making changes in packaging subcontractors or contract shipping points.	Contracts (Code 400) and FISC Norfolk Detachment SUPSHIPBA (Code 500), 15X	Contracts (Code 400) and Codes 500, 15X	Contracts (Code 400) and Code 500	Contracts (Code 400) and Code 500

Item	**FAR 42.302 (a)**	**Bath** Responsible Code (Primary in bold)	**Groton** Responsible Code (Primary in bold)	**Gulf Coast** Responsible Code (Primary in bold)	**Newport News** Responsible Code (Primary in bold)
(63)	Cancel unilateral purchase orders when notified of non-acceptance by the contractor. The ACO shall notify the contracting officer when the purchase order is canceled.	Contracts (Code 400)	Contracts (Code 400) and Code 15X	Contracts (Code 400)	Contracts (Code 400)
(64)	Negotiate and execute one-time supplemental agreements providing for the extension of contract delivery schedules up to 90 days on contracts with an assigned Criticality Designator of C. Notification that the contract delivery schedule is being extended shall be provided to the contracting office (PCO). Subsequent extensions on any individual contract shall be authorized only upon concurrence of the contracting office.	Contracts (Code 400)	Contracts (Code 400) and Code 15X	Contracts (Code 400)	Contracts (Code 400)
(65)	Accomplish administrative closeout procedures.	Contracts Code 400, and Codes 140, 200, 300, FISC/500, 15X, 940	Contracts Code 400, and Codes 140, 190, 200, 300, 500, 15X	Contracts Code 400, and Codes 200, 300, 500, 117, 15X	Contracts Code 400, and Codes 140, 190, 200, 300, 500, 15X and 1800
(66)	Determine that the contractor has a drug-free workplace program and drug-free awareness program.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(67)	Support the program, product and project offices regarding program reviews, program status, program performance, and actual or anticipated program problems	Project Office (Code 15X) and Codes 400, 200, 300, 500	Project Office (Code 15X) and Codes 400, 200, 300, 500	Project Office (Codes 117, 15X) and Codes 200, 300, 400, 500	Contracts (Code 400), and Engineering (Code 200), Business Review (Code 160), Quality Assurance (Code 300), and Logistics (Code 500)

Item	**FAR 42.302 (a)**	**Bath** Responsible Code (Primary in bold)	**Groton** Responsible Code (Primary in bold)	**Gulf Coast** Responsible Code (Primary in bold)	**Newport News** Responsible Code (Primary in bold)
(68)	Monitor the contractor's environmental practices for adverse impact on contract performance or contract cost, and for compliance with environmental requirements specified in the contract. ACO responsibilities include--(i) Requesting environmental technical assistance, if needed; (ii) Monitoring contractor compliance with specifications requiring delivery or use of environmentally preferable products, energy-efficient products, products containing recovered materials, and bio-based products. This must occur as a part of the quality assurance procedures set forth in Part 46; and (iii) As required in the contract, ensuring that the contractor complies with the reporting requirements relating to recovered material content utilized in contract performance (see Subpart 23.4).	Environmental and Safety Office (Code 140) and Code 15X	Environmental and Safety Office (Code 140) and Code 15X	Environmental and Safety Office (Code 140) Code 117, 15X	Environmental and Safety Office (Code 140)
(69)	Administer commercial financing provisions and monitor contractor security to ensure it provides continued adequacy to cover outstanding payments, when on-site review is required.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(70)	De-obligate excess funds after final price determination.	Contracts (Code 400)	Contracts (Code 400) and Code 107	Contracts (Code 400) and Code 700	Contracts (Code 400) and Code 700

Item	**FAR 42.302 (b)**	**Bath** Responsible Code (Primary in bold)	**Groton** Responsible Code (Primary in bold)	**Gulf Coast** Responsible Code (Primary in bold)	**Newport News** Responsible Code (Primary in bold)
(1)	Negotiate and/or execute supplemental agreements incorporating contractor proposals resulting from change orders issued under the Changes clause. Before completing negotiations, coordinate any delivery schedule change with the contracting office (PCO).	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(2)	Negotiate prices and execute priced exhibits for unpriced orders issued by the contracting officer under basic ordering agreements.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(3)	Negotiate and/or execute supplemental agreements changing contract delivery schedules.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(4)	Negotiate and/or execute supplemental agreements providing for the de-obligation of unexpended dollar balances considered excess to known contract requirements.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(5)	Issue amended shipping instructions and, when necessary, negotiate and execute supplemental agreements incorporating contractor proposals resulting from these instructions.	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Code 15X	Contracts (Code 400) Code 117, 15X, 500	Contracts (Code 400)
(6)	Negotiate changes to interim billing prices.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(7)	Negotiate and definitize adjustments to contract prices resulting from exercise of an economic price adjustment clause (see Subpart 16.2).	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)

Item	**FAR 42.302 (b)**	**Bath** Responsible Code (Primary in bold)	**Groton** Responsible Code (Primary in bold)	**Gulf Coast** Responsible Code (Primary in bold)	**Newport News** Responsible Code (Primary in bold)
(8)	Issue change orders and negotiate and execute resulting supplemental agreements under contracts for ship construction, conversion and repair.	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Code 15X	Contracts (Code 400) Code 117, 15X (as delegated by ACO)	Contracts (Code 400)
(9)	Execute supplemental agreements on firm-fixed-price supply contracts to reduce required contract line item quantities and de-obligate excess funds when notified by the contractor of an inconsequential delivery shortage, and it is determined that such action is in the best interests of the Government, notwithstanding the default provisions of the contract. Such action will be taken only upon the written request of the contractor and, in no event, shall the total downward contract price adjustment resulting from an inconsequential delivery shortage exceed $250.00 or 5 percent of the contract price, whichever is less.	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Code 15X	Contracts (Code 400)	Contracts (Code 400)
(10)	Execute supplemental agreement to permit a change in place of inspection at origin specified in firm fixed-price supply contracts awarded to non-manufacturers, as deemed necessary to protect the Government's interests.	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Code 15X	Contracts (Code 400)	Contracts (Code 400)
(11)	Prepare evaluations of contractor performance in accordance with Subpart 42.15.	Contracts (Code 400) and Codes 15X, 300	Contracts (Code 400) and Codes 15X, 300	Contracts (Code 400) and Codes 117, 15X, 300	Contracts (Code 400) and Codes 15X and 300

Item	**DFAR 242.302**	**Bath** Responsible Code Primary in Bold	**Groton** Responsible Code Primary in Bold	**Gulf Coast** Responsible Code Primary in Bold	**Newport News** Responsible Code Primary in Bold
(a)(4)(A)	Review and evaluate contractor estimating systems See FAR 15.405-5).	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(a)(4)(B)	Review and evaluate contractor material management and accounting systems under Subpart 242.72	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(a)(7)	See 242.7502 for ACO responsibilities with regard to receipt of an audit identifying significant accounting system or related internal control deficiencies.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(a)(9)	For additional contract administration functions related to IR&D/B&P projects performed by major contractors, see 242.771-3(a).	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(a)(12)	Also perform all payment administration in accordance with any applicable payment clauses.	Contracts (Code 400)	Comptroller (Code 107)	Contracts (Code 400)	Contracts (Code 400)
(a)(13)(A)	Do not delegate the responsibility to make payments to the Defense Contract Management Agency (DCMA)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)

Item	**DFAR 242.302**	**Bath** Responsible Code Primary in Bold	**Groton** Responsible Code Primary in Bold	**Gulf Coast** Responsible Code Primary in Bold	**Newport News** Responsible Code Primary in Bold
(a)(13)(B)	Follow the procedures at PGI 242.302(a)(13)(B) for designation of paying offices.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(a)(39)	See 223.370 for contract administration responsibilities on contracts for ammunition and explosives.	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)	Contracts (Code 400)
(a)(67)	Also support program offices and buying activities in pre-contractual efforts leading to a solicitation or award.	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Code 117, 15X	Contracts (Code 400)
(a)(S-70)	Serve as the single point of contact for all Single Process Initiative (SPI) Management Council activities. The ACO shall negotiate and execute facility-wide class contract modifications and agreements for SPI processes, when authorized by the affected components.	Contracts (Code 400) and Codes 200, 300, 130, and 15X	Contracts (Code 400) and Codes 200, 300, 130, and 15X	Contracts (Code 400) and Codes 200, 300, 180, 117, and 15X	Contracts (Code 400), Codes 200, 300, 500, 130, and 15X
(a)(S-71)	DCMA has responsibility for reviewing earned value management system (EVMS) plans and for verifying initial and continuing contractor compliance with DoD EVMS criteria. The contracting officer shall not retain this function.	DCMA	Contracts (Code 400)	DCMA	DCMA

Item	**DFAR 242.302**	**Bath** Responsible Code Primary in Bold	**Groton** Responsible Code Primary in Bold	**Gulf Coast** Responsible Code Primary in Bold	**Newport News** Responsible Code Primary in Bold
(b)(S-70)	Issue, negotiate and execute orders under basic ordering agreements for overhaul, maintenance and repair.	Contracts (Code 400)	Contracts (Code 400) and Code 15X	Contracts (Code 400) and Codes 117, 15X	Contracts (Code 400)

Appendix 5-B: Communications Planning

Introduction

This appendix is provided to aid SUPSHIP project offices in the development of a project communications plan. It consists of a methodology for communications plan development, a sample collection of communications that may be included in a communications matrix, and a copy of a Word template that can be used to simplify the writing and formatting of the communications plan.

Communications Plan Methodology

A communications plan facilitates effective and efficient communications with the various stakeholders involved in a project. The plan describes how project communications should occur in order to provide an accurate, timely, and necessary flow of information.

The steps below provide a basic methodology for developing a communications plan. It is not intended to be all-inclusive, but to offer suggestions for laying the foundation for a project oversight communications plan. The plan should be living guide to the communication process; therefore, it should be built upon and modified to accommodate changes in the information requirements of project stakeholders.

1. Describe the objective of the communications plan. For example:

    a. Ensure accurate, timely flow of information to the projects stakeholders (i.e., right info to right person in right format at right time with right impact).

    b. Promote stakeholder confidence in knowing the status of the project. Ensure no stakeholder feels “in the dark”. Help prevent short-fused demands for information.

    c. Establish communication priorities for the project office.

2. Determine the scope of the communications plan (if not addressed in plan objectives). The scope should be narrow enough to make the plan manageable, but broad enough to address principal stakeholders. Consider identifying scope by:

    a. Internal/external communication

    b. Government/non-government organizations

    c. Nature of information being communicated: design, technical, EVM, financial, resources, subcontracts, etc.

    d. Define type of communication (Interactive (QPPR), “Push” communications (e.g., PMR quarter/weekly reports) or “Pull” communications (CDRLs, EVM data), required report, formal briefing, schedule meetings, informal meetings, etc.

3. Determine and assess the target audience. Who are the principal participants and stakeholders? What are the levels of interest, expectations, importance, and influence for each participant? How do they impact the project? What do they want to know?

4. Develop a communications matrix. (Appendix 5-B lists many communications currently used). For each type of communication, the matrix may address:

   a. Level of communication (ASN (RD&A)), NAVSEA leadership, SUPSHIP leadership, project/program office, etc.)

   b. Title/type/nature of communications (War Room Brief, NAVSEA 00 Brief, required report, scheduled meeting, EVMS review, etc.)

   c. Description/purpose

   d. Participants/distribution

   e. Parties responsible (the communicator may not be the same as the persons responsible for collecting/assembling the information communicated)

   f. Format/media/vehicle (e.g., e-mail, written report, face-to-face meeting, teleconference, etc.)

   g. Periodicity (e.g., quarterly, monthly, weekly, as needed, etc.)

   h. Output – what is the intended result of the communication?

5. Other considerations. Consider communications-related problems from other projects. Are there any lessons-learned that should be addressed in the plan? Are there any restrictions, permissions or other special requirements that should be included? How can the plan help avoid pitfalls, such as:

   a. Late identification of issues that result in significant impact to project schedule, cost, quality, ship capabilities, etc.

   b. Constructive changes

   c. Inaccurate/inappropriate response to media queries

   d. Disparities in SUPSHIP and program office assessment of project status

   e. Disagreement over need for Bell-ringer

   f. Inappropriate release of business sensitive information

Sample Communications for Consideration in Communications Plan

Level of Communication	Meeting/ Communication	Description/ Purpose	Format	Suggested Recipient / Participant	Suggested Frequency	Output
Command Leadership Team	PCO Agenda Meeting	Discussion of ship's agenda items and issues with the crew or PCU	Face-to-Face	Code 100, 101, 102 or 150, PMR / DPMR, CO, PCO	Weekly	Resolution of agenda items
	Executive Meeting with Supervisor	Open forum discussion from facilities to individual ship class problems, enterprise and sector issues	Face-to-Face	Code 100, 101, 102 or 150, PMR / DPMR, shipbuilder VP	Weekly	Scheduled informal transfer of knowledge; specific actions are uncommon
	QA/Engineering Ops/VP with Supervisor	Open forum discussion from facilities to individual ship class problems, enterprise and sector issues	Face-to-Face	Code 100, 101, 102 or 150, shipbuilder VP	Weekly	Scheduled informal transfer of knowledge; specific actions are uncommon
	VP reports	High level construction and EVMS reports from VPs	Face-to-Face	Code 100, 101, 102 or 150, shipbuilder VP	Weekly	Contractor management report to contractor executives
	Senior Management Meeting (CVN CO Agenda Meeting	Ktr provides detailed status of all work items and issues impacting schedule and production metrics briefing	Onsite/telcon	PM Office, SDM, SUPSHIP proj/eng, TYCOM, SF, ISIC, NRRO, PARMs, AIT Manager, PY, shipbuilder, other repair activities	Weekly	
	War Room Brief	Biweekly nuclear repair brief	PowerPoint/ telcon	SEA 04X, SEA 04Z, PM Office, SEA 08 Codes, SUPSHIP	Biweekly	

Level of Communication	Meeting/ Communication	Description/ Purpose	Format	Suggested Recipient / Participant	Suggested Frequency	Output
	NAVSEA 04 / Supervisors Meeting	Monthly telcon to disseminate information and discuss top three issues at each SUPSHIP	Telcon	SEA 04, SEA 04Z, All SUPSHIPs C100, 101, 102, 150	Monthly	
	NAVSEA 00 Brief	Flag level status of all Projects at shipyard.	Electronic report to dist and telcon	SEA 00, SEA 04, SEA 04Z, SUPSHIP	Quarterly	
	Emergent situation report	Early notification of high visibility issues	Telcon/ e-mail	PM, PEO, SEA 00, SEA 04, SEA 04Z, Fleet, SUPSHIP	As required	
	"Bell-ringer" reports	Notification of potential inability to complete project.	Naval message	SEA 00/SEA 04/SEA 08/PEO, SUPSHIP	As required	
Projects / Program	Program/Project office meeting (PM to PMR)	Discuss high level program issues	Face-to-Face	PMR/DPMR, shipbuilder PM	Weekly	Actions to resolve
	Contractor Weekly Reports	Provide detailed cost and schedule data from the contractor	Electronic report to distribution	PMR/DPMR, shipbuilder PM	Weekly	Shared knowledge
	Event Hotwash meeting	Post-event discussion of improvements and best practices	Face-to-Face	PMR/DPMR, shipbuilder PM	As required	Actions to resolve; capture lessons learned
	Program Lessons Learned	Discusses past ship and current ship issues and applicability to future ships	Face-to-Face	PMR/DPMR, shipbuilder PM	As required	Actions to resolve
	Risk Management	Identify and quantify program risk	Electronic report to distribution	PM, PMR/DPMR, shipbuilder PM	As required	Risk register maintenance
	Letters	Formal program communication	Written letter	All levels of chain of command with shipbuilder counterpart	As required	Responses

Level of Communication	Meeting/ Communication	Description/ Purpose	Format	Suggested Recipient / Participant	Suggested Frequency	Output
	Schedule Meeting	Discussion on production schedule, concerns impacts, etc	Face-to-Face	PMR/DPMR, shipbuilder PM, Navy/contractor production leads Navy/contractor	Weekly	Understanding of Critical Path and resolution of schedule issues
	INSURV Pre-Brief	Update INSURV on configuration changes and coordination of trial events	Face-to-Face	PM, Program Office representatives, SDM, INSURV, PMR/DPMR, shipbuilder PM	As required	Coordination, knowledge sharing
	INSURV Brief	Brief INSURV on readiness for trials	face to face	PM /PM Office, SDM, SUPSHIP proj/eng, SF, contractor	As required	
	Availability Planning	PSA planning	Face-to-face or telcon	PM Office, SDM, SUPSHIP proj/eng, TYCOM, SF, contractor	Weekly	
	Work Definition Conference	Introduction of key participants and continued refinement of work scope and roles and responsibilities	face to face	PM / PM office, SDM, SEA 04, SEA 08 Codes, SUPSHIP proj/eng/QA/ contracts, TYCOM, SF, contractor, FISC	As required	
	Ship's Arrival Conference /	Indoctrinate SF in the inner workings of the shipyard and SUPSHIP	face to face	PM / PM OFFICE, SDM, SEA 04, SEA 08 Codes, SUPSHIP proj/eng/QA/ contracts, TYCOM, SF, contractor, FISC	As required	

Level of Communication	Meeting/ Communication	Description/ Purpose	Format	Suggested Recipient / Participant	Suggested Frequency	Output
Production	Daily Production Meeting	Discuss critical production events. Production and technical issues.	Face-to-Face	Hull managers/ship superintendents, contractor shipboard or area management team	Daily	Schedule priority and identification of issues requiring attention. Coordination meeting amongst crafts/trades and government.
	Waterfront Daily Written Report	Brief waterfront daily report - 1/2 page to full page	Written Report	SUPSHIP project office	Daily	
	Situational Report to APM / DPM	Discuss resolution and status of open issues.	Telcon / Email	APM, SUPSHIP project office	Daily	
	Event based readiness review	Stakeholders concur that all event pre-requisites have been met and ship configuration status is acceptable to proceed with the event.	Onsite with slide presentation	PM /PM OFFICE, SDM, SUPSHIP proj/eng, SF, contractor	As required	
	Daily Informal Communications	Ad hoc discussion that does not fit in other stated categories	Face-to-Face or Telephone	All levels of chain of command with shipbuilder counterpart	Daily	Information exchange
	Product Walkthrough	Independent look of ship's progress, safety and quality	Face-to-Face	All levels of chain of command with shipbuilder counterpart	Weekly	Informal outbrief

Level of Communication	Meeting/ Communication	Description/ Purpose	Format	Suggested Recipient / Participant	Suggested Frequency	Output
	Weekly Construction Report	Construction metrics - Include status of Key Event Schedule, executive and upcoming events. EVM snapshot, ILS issues, Project Officer concerns and other interest areas.	Electronic report to distribution	PEO, PM, Fleet, contractor	Weekly	Understanding of customer's perspective
	Project Office Construction Status Report	Construction metrics - Include status of Key Event Schedule, executive and upcoming events. EVM snapshot, ILS issues, Project Officer concerns and other interest areas.	Electronic report to distribution	PM Office, TYCOM, SF, SUPSHIP	Weekly	
	Meeting with ISIC Representative	Discuss resolution and status of open issues.	Face-to-Face or telcon	SUPSHIP project office, ISIC representative	As needed, at least weekly	
	Shipyard Discrepancy Tracking System Meeting	Identification of Engineering Reports, work to be shifted	Face-to-Face	Production Officer, QA Lead, Project Engineer with shipbuilder counterparts	Weekly	Decision on when to complete work
	Government Liabilities (Government Action Matrix)	Government Actions shipbuilder waiting on	Face-to-Face	Production Officer, QA Lead, Project Engineer with shipbuilder counterparts	Weekly	Prioritization of government workload to support the shipbuilder; focused on items that effect production

Level of Communication	Meeting/ Communication	Description/ Purpose	Format	Suggested Recipient / Participant	Suggested Frequency	Output
	EVMS Review	Evaluation, analysis and discussion of Ktr EVMS data.	Report of metrics and written analysis	PM, SUPSHIP project/ business offices	Monthly	
	Production Budget Execution Meeting	Detailed look at earned value/bill management	Face-to-Face	Production Officer with shipbuilder counterpart	Weekly	Understanding of Critical Path and resolution of schedule issues
Quarterly Program Review		Review of program status (for Program Managers)	On-site with slide presentation	PM, SEA 05, SEA 04 SUPSHIP proj/eng/ QA/Business, all primes	Quarterly	Knowledge Sharing and Action item list
	Government QPPC Brief	Government only discussion prior to QPPC with Ktr.	Onsite with slide presentation	PM / PM Office, SDM, SEA 04, SEA 08 Codes, SUPSHIP proj/eng/QA/contra cts, TYCOM, SF, FISC	Quarterly	
	Government Financial Review	Government only portion of QPPC.	Onsite with slide presentation	PM / PM Office, SUPSHIP proj/ business, SEA08 codes	Quarterly	
Ships Force (SF)	SF weekly meeting	Keep SF personnel informed of production status and address PCO/CO concerns	Face-to-Face	PMR / DPMR, CO, PCO, Production Officer and key wardroom members	Weekly	Knowledge Sharing and Action item list
Technical	Checkpoints/inspec tions	Certify progress and evaluate.	Face-to-Face	All levels of chain of command with shipbuilder counterpart	As required	Approval or certification

Level of Communication	Meeting/ Communication	Description/ Purpose	Format	Suggested Recipient / Participant	Suggested Frequency	Output
	Technical Issue Discussion	Discuss resolution and status of open technical issues.	Telcon	PM Office, SDM, SUPSHIP proj/eng. TYCOM, SF, contractor	Twice per week	
	CDRL Response	Fulfill contractual obligations	Written letter	PM, SEA 05, SUPSHIP various codes, all primes, PMR/DPMR	As required	Formal government disposition of CDRL submittals
	Class Design Review	Review proposed and pending changes to a class of ships	Onsite with slide presentation	PM, SEA 05, SUPSHIP various codes, all primes, PMR/DPMR	Weekly	Class improvement plan
	QA Executive Council	Discussion on quality concerns and resolution of concerns that cannot be solved at the weekly CAR meeting	Face-to-Face	QAO, PMR/DPMR, contractor QA director production director and staff	Weekly	Senior level direction
	QA Council	Inform craft directors of quality issues/trends	Face-to-Face	QAO, shipbuilder VP Quality, others as required	Quarterly	Action plans to resolve negative trends, issue bulletins to inform
	Engineering QA Review	Resolve disputed CARs and address trend analysis	Face-to-Face	PMR/DPMR, QA Hull Lead, Project Engineer with shipbuilder counterparts	Weekly	CAR resolution and reduction

Level of Communication	Meeting/ Communication	Description/ Purpose	Format	Suggested Recipient / Participant	Suggested Frequency	Output
Event Readiness Reviews	Event Based Readiness Review	Stakeholders concur that all event pre-requisites have been met and ship configuration status is acceptable to proceed with the event.	On-site with slide presentation	PMS Representation, SEA 05, Project office, SUPSHIP - codes determined by event, contractor SMEs, program and hull management	As needed	Stoplight Chart and/or decision to proceed
Test & Trials	Weekly Test Status	Current test status, test issues, etc	Face-to-Face	Test Officer and shipbuilder/integrator test management	Weekly	Test status report and trend data
	Trials Readiness Review	Review readiness for trials by INSURV category	Onsite with slide presentation	PM/PM Office, SDM, SUPSHIP Proj/Eng, SF, contractor	Twice weekly at three months, weekly last six weeks, daily last few weeks	
Business	CPR/EVMS Review	Analysis of contractor's cost and schedule performance	On-site with slide presentation	PMR/DPMR, shipbuilder PM, ACO	Monthly	Understanding of contractor's cost and schedule performance

Level of Communication	Meeting/ Communication	Description/ Purpose	Format	Suggested Recipient / Participant	Suggested Frequency	Output
	Contractor Performance Assessment Reporting System	The Contractor Performance Assessment Reporting System (CPARS) is a web-based system used to input data on contractor performance	Web-based in writing	PM, PMR/DPMR, PCO, ACO	Per contract	CPARS is used as an aid in awarding contracts to contractors that consistently provide quality, on-time products and services that conform to contractual requirements. CPARS can be used to effectively communicate contractor strengths and weaknesses to source selection officials.
	Program Finance Meeting	Determine funding requirements	Face-to-Face	PMR/DPMR, shipbuilder PM, ACO	Bi-weekly	Properly funded contract
	FM Weekly Telcon	Discuss resolution and status of technical, cost, schedule and configuration issues.	Telcon	PM Office, SEA 08 Codes, SUPSHIP project office	Weekly	
	Change Meetings	Scope identification and timeline of change incorporation	Face-to-Face	PM, PMR/DPMR, shipbuilder PM, APM, Configuration Manager	Weekly	Change plan
	Configuration Management Team / Contract Change Status Meeting	Discuss status and resolve issues related to change approval, implementation and documentation.	Onsite/ telcon	PM Office, SUPSHIP proj/ Contracts, contractor	Weekly (contract change bi-weekly)	

Level of Communication	Meeting/ Communication	Description/ Purpose	Format	Suggested Recipient / Participant	Suggested Frequency	Output
	Contract status meeting	Discuss status and resolve issues related to change approval, critical path contract actions	Face-to-Face or Telephone	Shipbuilder, ACO, PMR, DPMR, PCO	Weekly	Minimize production delays and program cost

SUPSHIP Project Management Communications Plan Template

The following Microsoft Word template will help automate the process of writing a communications plan. This template enables the project office to employ a standard format while uniquely tailoring the details of the communications plan to a specific project. A printed version of the template follows, but the electronic version is available for download from the SOM page of the SUPSHIP website.

Supervisor of Shipbuilding, Conversion and Repair

<LOCATION>

<PROJECT NAME>

COMMUNICATIONS PLAN

Version *<1.0>*

<mm/dd/yyyy>

VERSION HISTORY

[Use the table below to provide the version number, the author implementing the version, the date of the version, the name of the person approving the version, the date that particular version was approved, and a brief description of the reason for creating the revised version.]

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	*<Author name>*	*<mm/dd/yy>*	*<name>*	*<mm/dd/yy>*	*<reason>*

SEA 04Z Template Version: 1/14/2011

Note to the Author

[This document is a communications plan template for a SUPSHIP ship construction or ship repair project. The template includes instructions to the author, boilerplate text, and fields that should be replaced with the values specific to the project.

- *Blue italicized text enclosed in square brackets ([text]) provides instructions to the document author, or describes the intent, assumptions and context for content included in this document.*

- *Blue italicized text enclosed in angle brackets (<text>) indicates a field that should be replaced with information specific to a particular project.*

- *Text and tables in black are provided as boilerplate examples of wording and formats that may be used or modified as appropriate to the specific project. <u>These are offered only as suggestions to assist in developing the communications plan and are not mandatory formats.</u>*

When using this template for your project document, it is recommended that you follow these steps:

1. *Replace all text enclosed in angle brackets (i.e., <Project Name>) with the correct field values. These angle brackets appear in both the body of the document and in headers and footers. To customize fields in Microsoft Word (which display a gray background when selected):*
    a. *For Word 2003 and earlier, select File>Properties>Summary and fill in the Title field with the Document Name and the Subject field with the Project Name. For Word 2007/2010, select File>Show All Properties (right side) to edit these fields.*
    b. *Select File>Properties>Custom and fill in the Last Modified, Status, and Version fields with the appropriate information for this document. For Word 2007/2010, select File>Show All Properties (right side) to edit these fields.*
    c. *After you click OK to close the dialog box, update the fields throughout the document with these values by selecting Edit>Select All (or Ctrl-A) and pressing F9. Or you can update an individual field by clicking on it and pressing F9. This must be done separately for Headers and Footers.*
2. *Modify boilerplate text as appropriate to the specific project.*
3. *To add any new sections to the document, ensure that the appropriate header and body text styles are maintained. Styles used for the Section Headings are Heading 1, Heading 2 and Heading 3. Style used for boilerplate text is Body Text.*
4. *To update the Table of Contents, right-click and select "Update field" and choose the option- "Update entire table"*

5. *Before submission of the first draft of this document, delete this "Notes to the Author" page and all instructions to the author, which appear throughout the document as blue italicized text enclosed in square brackets.]*

TABLE OF CONTENTS

1 INTRODUCTION 5-106
1.1 Purpose and Objectives 5-106
1.2 Scope 5-106
2 STAKEHOLDER IDENTIFICATION AND ANALYSIS 5-106
3 PROJECT COMMUNICATIONS 5-106
3.1 Communications Matrix 5-106
3.1.1 Project Meetings 5-107
3.1.2 Project Reporting 5-107
3.1.3 Other Communications 5-107
APPENDIX A: REFERENCES 5-109

1 Introduction

1.1 Purpose and Objectives

[Provide the purpose and objectives of the communication management plan.]

To promote the success of the *<Project Name>* by meeting the information needs of project stakeholders. This Communications Plan defines the project's structure and methods of information collection, screening, formatting, and distribution, and outlines an understanding among project stakeholders regarding the actions and processes necessary to facilitate the critical links among people, ideas, and information necessary for project success.

The intended audience of this communications plan is the project office, program management office, shipbuilder, and other activities whose support is needed to carry out this communication plans.

1.2 Scope

[If not addressed in the Purpose and Objectives, identify the scope of communications covered by the plan, e.g., internal/external, government activities only, etc.]

This communications plan applies to communications between the SUPSHIP *<Project Name>* project office and organizations external to SUPSHIP *<location>.*

2 Stakeholder Identification and Analysis

The intended audience of the *<Project Name>* Communications Plan is the project office, program management office, shipbuilder, and other activities whose support is needed to carry out this communication plan.

[Insert the stakeholder analysis or provide a reference to where it is stored.]

Name	Title	Contact	Communication	Vehicle	Comments
<John Smith>	*<Manager>*	*<000-000-0000 joe@joe.com>*	*<Status Reports and Internal Project Status Meeting>*	*<Email,meeting, telcon, etc.>*	*<comments>*

3 Project Communications

3.1 Communications Matrix

[Insert the communication matrix or provide a reference to where it is stored. See SOM Ch 5, Appendix 5-B for a selection of sample communications.]

Vehicle	Target	Description Purpose	Frequency	Owner	Distribution Vehicle	Internal/ External	Comments
<Status Report>	*<All Stakeholders>*	*<One page communication of project progress and deliverable status>*	*<Weekly>*	*<Joe Smith>*	*<Email>*	*<Internal>*	*<comments>*

[The sections below may not be necessary if they have been addressed in the Communications Matrix.]

3.2 Project Meetings

[Insert the project meeting schedule or provide a reference to where it is stored.]

Meeting	Description Purpose	Frequency	Owner	Internal/ External	Comments/ Participants
<Status Meeting>	*<Communication of project progress and deliverable status>*	*<Weekly>*	*<Joe Smith office>*	*<Internal>*	*<comments>*

3.3 Project Reporting

[Insert the project reporting schedule or provide a reference to where it is stored.]

Meeting	Description Purpose	Frequency	Owner	Internal/ External	Comments/ Distribution List
<Status Report>	*<Communication of project progress and deliverable status>*	*<Weekly>*	*<Joe Smith>*	*<Internal>*	*<comments>*

3.4 Other Communications

[Insert the project reporting schedule or provide a reference to where it is stored.]

Vehicle	Description Purpose	Frequency	Owner	Internal/ External	Comments/ Distribution List
<Status Report>	*<Communication of project progress and deliverable*	*<Weekly>*	*<Joe Smith>*	*<Internal>*	*<comments>*

	status>				

Communications Plan approval

The undersigned acknowledge they have reviewed the *<Project Name>* Communications Management Plan and agree with the approach it presents. Changes to this communications plan will be coordinated with and approved by the undersigned or their designated representatives.

[List the individuals whose signatures are desired. Examples of such individuals are the Supervisor, Program Manager, Shipbuilder's Project Officer and Program Manager's Representative (PMR). Add additional lines for signature as necessary. Although signatures are desired, they are not always required to move forward with the practices outlined within this document.]

Signature: _____ Date: _____
Print Name: _____
Title: _____
Role: _____

Signature: _____ Date: _____
Print Name: _____
Title: _____
Role: _____

Signature: _____ Date: _____
Print Name: _____
Title: _____
Role: _____

APPENDIX A: REFERENCES

[Insert the name, version number, description, and physical location of any documents referenced in this document. Add rows to the table as necessary.]

The following table summarizes the documents referenced in this document.

Document Name and Version	Description	Location
<Document Name and Version Number>	*[Provide description of the document]*	*<URL or Network path where document is located>*

Appendix 5-C: Types of Delays and Methods for Determination

Delays in Performance

The Project Office must take timely and necessary action to avoid Government-caused delays in contract performance. These delays can have significant impact on the contractor's planned schedule and production processes with the potential for cost overruns, delayed delivery, contractor entitlement to equitable adjustments in the contract price, or result in substantiation of a contractor claim. In general, the contractor bears the risk of both time and cost for delays, but is excused for delays caused by factors for which the contractor is not responsible.

Excusable Delays

In most cases, the contractor must bear the cost impact of excusable delays. In a contractor's facility, the Government usually will compensate the contractor only for the cost of services provided for the benefit of the crew of the vessel, and no other costs. The Government, however, will compensate the contractor for both the time and cost impact of delays caused by the Government.

Generally, the contractor is not liable for any excess costs if failure to perform the contract arises from causes beyond the control and without the fault or negligence of the contractor. "Fault or negligence" deals with acts or omissions of the contractor which cause delay. Examples of events beyond the contractor's control and without the contractor's fault or negligence may include:

- Acts of God or of a public enemy. An "Act of God" has been defined as a "singular, unexpected, and irregular occurrence of a force of nature."
- Acts of Government in either its sovereign or contractual capacity:
    - Contractual Acts. For a contractor to be excused by an act of the Government in its contractual capacity, the contractor must show that delay resulted from the Government's failure to perform its express or implied contractual duties.
    - Sovereign Acts. Sovereign acts which delay the contractor's performance may be grounds for excusable delays. In general, however, when the Government's acts are for the general public good and are indirect in nature, the contractor is not excused for any resultant delay.
    - Strikes. In order to obtain an excusable delay for a strike, a contractor must prove that it acted reasonably by not wrongfully precipitating or prolonging the strike and took steps to avoid its effect. In the absence of a strike or other enumerated cause of delay, a contractor is generally not excused for labor difficulties.

- Unusually severe weather. Normally, proof that weather is unusually severe is accomplished through the comparison of the United States weather statistics for past periods in the area with those recorded during the period of performance. When weather conditions are abnormal and unusually severe in their effect on the particular type of contract work being performed, the contractor may be entitled to excusable delay. In cases where the nature of the work requires specific environmental conditions and when the work is delayed because of weather conditions, the delays are excusable to the extent that the weather conditions exceed the normal weather delays contemplated for the period of the performance.

- Fires

- Floods

- Epidemics

- Quarantine restrictions

- Freight embargoes

- Bomb threats or terrorist action

In order for a contractor to be entitled to an excusable delay, the matter of whether the contractor could have foreseen the cause of the delay is considered, regardless of any excusable factors. If a delay is caused by a subcontractor and if the delay is beyond the control of both the contractor and subcontractor and without the fault or negligence of either, the contractor is excused for the delay unless the subcontracted supplies or services were obtainable from other sources in sufficient time for the contractor to meet the required delivery schedule. Delays caused by sole source subcontractors, even those designated by the Government, do not qualify for excusable delays if the subcontractor is at fault. When the Government directs the installation of a sole source item, it represents only that the requirements of the contract can be met by using that item; however, such representation is predicated on the assumption that the item has been properly manufactured and timely delivered by the vendor and that it will be installed properly and timely by the contractor.

Non-Excusable Delays

Contractors are typically held responsible for subcontractor delays and delays caused by insufficient working capital. Subcontractor delays involve non-excusable delays caused by a shipbuilder's own subcontractors. A shipbuilder assumes a non-delegable duty to perform a construction contract, and it is generally no excuse to allege that a shipbuilder has been delayed by its own subcontractors. The shipbuilder can, of course, look to the subcontractor for any damages incurred as a result of such delay.

Neither does a lack of sufficient working capital constitute an excusable cause of delay. A shipbuilder is expected to have the financial ability to perform the contract. The shipbuilder's

delay or failure to perform resulting from its inability to obtain money is ordinarily inexcusable regardless of the reason; whether due to an economic downturn, general financial distress, or failure of a third party on which it relied upon in furnishing support.

Compensable Delays

A contractor's ability to recover increased costs resulting from delays will depend on the cause of the delay, the nature of its impact on the contractor, and the contractual provisions dealing with compensation for delays. Generally, compensable delays result from Government action or inaction, such as either changes in the work, the existence of a differing worksite condition than stated in the contract, an unreasonable suspension of work, or failure of the Government to perform its duties under the contract

Government Delay of Work

If the contracting officer orders the contractor to suspend or stop work, the contractor will almost always be entitled to an equitable adjustment in both contract price and delivery schedule to compensate for the impact on contract performance. In other situations, the Government will be at fault if it breaches its implied duty not to hinder or interfere with the contractor's performance or its implied duty to cooperate with the contractor. Generally, the Government will be at fault when it is responsible for:

- delays in making the worksite available
- delays caused by interference with the contractor's work
- delays in providing required Government reviews and approvals
- delays in providing funding
- delays in performing required inspection of work
- delays in issuing changes
- delays in furnishing GFP, GFM, GFE, or GFI
- delays which are unreasonable in duration
- delays caused by conflicting or defective Government specifications

Excusable Delay Relief

A contractor is not entitled to relief upon the mere occurrence of an event which qualifies as an excusable delay. Even though a contractor can establish that an event or occurrence was unforeseeable, beyond its control, and occurred without its fault or negligence, the contractor is not entitled to an excusable delay unless the contractor can prove that the time lost resulted in delay to the completion of the contract. The contractor must establish the

number of days of relief to which the contractor is entitled. Events may not be beyond the contractor's control if the contractor could have overcome the effects of the event, and further, when the event is considered foreseeable, the contractor may be held responsible for making alternative arrangements for performance.

The amount of equitable adjustment recoverable by a contractor is generally equal to the costs that were greater than those which would have been incurred without the compensable delay. Cost increases attributable to the delay, such as those associated with increased labor rates, time-related labor, equipment, insurance and overhead, if any, are usually accepted and negotiated. Acceleration costs are also recoverable against the Government if they are incurred in mitigation of the effects of a compensable delay. When reviewing a contractor’s request for delay or acceleration costs, particularly unabsorbed overhead, it is helpful to confer with legal counsel in order to ensure application of the appropriate criteria to the specific alleged entitlement.

Concurrent Delay

Generally, in a case where the Government and the contractor are each responsible for delay in completing the work, the Government is barred from assessing liquidated damages against the contractor and the contractor is precluded from recovering delay damages. Concurrent delay does not bar extension of time, but it does bar monetary compensation for, among others, daily fixed overhead costs because such costs would have been on account of the concurrent delay even if the Government responsible delay had not occurred.

Appendix 5-D: Configuration Management (CM)

Introduction

A critical design and engineering requirement during the design and construction process, for both the Government and contractor, is to have a ship configuration management program in place. The program should be in accordance with NAVSEAINST 4130.12B, Configuration Management (CM) Policy and Guidance, and reference (u), TMIN-SL130-AB-GYD-010/CMP, Configuration Management Guidance Manual. A configuration management program is required to assist the contractor and Government in maintaining an accurate and up-to-date account of the approved as well as proposed design changes to the hull structure, plus changes to installed components and systems configurations that do not comply with the previously approved required material listings and applicable drawings. This configuration control process must also interface with the weight control plan. SUPSHIP typically establishes a SUPSHIP Configuration Control Board (SCCB) that reviews and approves proposed design changes and engineering change proposals and requests for deviation and waiver as appropriate. The PM and the SUPSHIP Project Officer, via the SCCB and CHENG, must have the capability to track the status of proposed changes to the "as designed" configuration and the decisions related to them. Engineering changes often have the potential to impact the production process and may add time and cost to the project if they are approved for implementation. Once an initial detailed design drawing signature block is signed/ approved, any change or revisions to that drawing must also be approved as defined in the approved Configuration Management Plan or similar contractually required configuration management document. The final revision to any drawing should reflect the detailed "as released" configuration of each compartment within the ship upon delivery. Accurately documenting the configuration of the ship or craft is not only critical for future maintenance and repair, but in particular, it is vital as the baseline for maintaining the stability requirements for the ship and during damage control events.

General Terms

Comprehension of this section is greatly enhanced by an accurate understanding of the following terms. These terms are fully described in reference (v), MIL-HDBK-61A, Configuration Management Guidance (some active contracts may still refer to MIL-STD-973 that was canceled and replaced by MIL-HDBK-61A).

- Engineering Change Proposal (ECP)
- Engineering Report (ER)
- Deviation
- Waiver
- Configuration

Generally, ECPs, ERs, deviations, and waivers result in a Headquarters Modification Request (HMR) or Field Modification Request (FMR), which in turn result in formal modifications to the contract issued on an SF 30. This section addresses the change request process pertaining to ECPs, deviations, waivers, HMRs, and FMRs.

Change Approval Authority for ECPs, ERs, HMRs, and FMRs

Approval authority for ECPs, ERs, HMRs, and FMRs are outlined in reference (k) and should be governed by agreements in a Ship Project Directive (SPD) or MOA. The following sections provide general guidance.

General

All ECPs, ERs, HMRs, and FMRs will be approved only by duly authorized individuals acting within the scope of their authority. The recipients of these documents may act on them only when duly authorized individuals have signed them. This section establishes the requirement for written SUPSHIP delegation of authority to individuals in SUPSHIPs and SUPSHIP Detachment(s) to approve or disapprove ECPs, ERs and FMRs, which a SUPSHIP is authorized to approve or disapprove. A SUPSHIP may delegate more than one authority to an individual if personnel limitations required.

An HMR package consists of the HMR or ECP and any applicable drawings and/or applicable contract documentation and substitute specification pages. Both the HMR and the ECP are approved by duly authorized persons. The approved ECP is the basis for the HMR.

An FMR package consists of the FMR, the ECP/ER and, as necessary, drawings and/or applicable contract documentation and substitute specification pages. Both the FMR and the ECP are approved by duly authorized persons. The approved ECP is the basis for the FMR.

HMR Approval Authority

An HMR is the document required by the ACO as authority to implement an approved level III or higher ECP. Only individuals holding HMR approval authority may approve an HMR. HMRs received without an authorized signature are to be returned to the Program Manager.

FMR Approval Authority

An FMR may be approved and signed only by an individual in SUPSHIP who is delegated such approval authority in writing by the ACO. The SUPSHIP letter of authority may specify any desired limitation on authority to approve FMRs.

ECP Approval Levels

The greater the technical, cost or schedule impact of a proposed change, the higher the organizational level of approval.

Levels of Organization Approval Authority

As noted in NAVSEAINST 4130.12B, the SOM establishes the four levels of organizational authority:

Level I CNO

Level II COMNAVSEA

Level III Program Manager

Level IV SUPSHIP or Participating Manager

The following sections describe the standard change approval authority at each of the four organizational levels. SUPSHIPs are authorized to exercise level IV authority for all program managers.

Level I

The following ECPs require CNO approval:

- All proposed changes to the military characteristics of new construction ships or conversions. Military characteristics encompass all features that are operational in significance, as well as any items specified in the OPNAV instruction detailing the characteristics of the particular ship or class. This includes equipment set forth in the Approved Electronics Equipment List and the Weapons Installation Plan appendices to the characteristics.

- All proposed changes to technical specifications (except the correction of errors and inconsistencies) which would increase the end cost of a ship project in a particular fiscal year SCN program above the end cost published in the latest CNO-approved Ship Cost Adjustment (SCA) Report.

- All proposed changes to technical specifications (except the correction of errors and inconsistencies) which would delay delivery of a ship beyond the contract delivery date or the most recent NAVSEASYSCOM estimated delivery date, if later than the contract date.

Level II

The following ECPs require COMNAVSEA approval:

- All proposed changes where an organizational member of a Program Manager Configuration Control Board (CCB) or a change sponsor has filed a reclama to a change approval/disapproval action taken by a Program Manager.

- Proposed changes affecting more than one Program Manager where a common decision among all affected Program Managers cannot be reached.

Level III

The following ECPs require Program Manager approval:

- ECPs originated by a SUPSHIP, a Prospective Commanding Officer (PCO) or a ship acquisition contractor, including subcontractors, that:
    - affect contract delivery date
    - affect contract guarantees or incentives
    - reduce ship or subsystem performance, stability or primary damage control characteristics beyond specified limits
    - affect contract standardization requirements (e.g., arrangements, components, design requirements)
    - increase cost of operation or maintenance (e.g., affect life cycle cost, reliability, maintainability, interchangeability)
    - affect hull strength, safety, electromagnetic, or underwater acoustic compatibility
    - introduce new logistic support requirements (e.g., parts support and modifications to existing retrofit kits, support equipment, training requirements, personnel, facilities, technical manual)
    - require retrofit/backfit in delivered ships to maintain a specified class standardization requirement
    - affect an established ship or subsystem interface with an item of GFE
    - are PCO-originated and not within the budget established for PCO changes for a specific ship
    - change or modify nuclear ships' propulsion plant systems, compartment arrangements, or assigned compartment function as defined in NAVSEAINST C9210.4
    - change an entire system where such a change affects weight, or represents a departure from contract drawings, contract specifications or approved design criteria

- Those ECPs originated by a ship project participating manager, contractor(s), including subcontractors, or supporting Government activities that: affect any technical performance requirements specified in the SPD, including Navy standards in existence on the date of the SPD, whether directly referenced or not; affect an established ship or subsystem interface; affect delivery dates contained in the SPD; or require additional funds beyond those in the latest SPD.

- ECPs originated by all Navy activities other than the activities are addressed above.

Level IV

ECPs that may be approved at the SUPSHIP level include those ECPs originated by a ship construction or conversion contractor, including subcontractor, and those originated within a SUPSHIP organization by a PCO or by a trial board that:

- do not require higher level approval, as specified above

- are within the changes budget established by the Program Manager via the SPD or and MOA for the particular project

Level IV ECPs Which SUPSHIP May Consider Essential

The approval authorities for HMRs and FMRs may designate changes which are considered essential and cannot be deferred for post-delivery accomplishment. When the approval authority for an FMR designates a change as essential, the approval authority will prepare and sign a determination that includes a rationale and justification for the determination. Since essential changes may be issued by unpriced contract modifications in order to permit immediate start of work on the change before pricing, the rationale must include sufficient data to justify the essential category. The authority of the ACO to execute an unpriced modification is limited for fixed-price type contracts. The FMR approval authority is to submit the determination to the ACO. The following are examples of essential changes/ECPs.

The following sections cover field-initiated ECPs which may be approved at level IV and, if approved, may be designated essential by the FMR approval authority.

Correction of Specification Defects

Field changes in this category may be initiated and approved at level IV when a system or component does not operate in accordance with the specifications and where the Government is determined responsible for the deficiency.

The following are examples of changes in this category:

- Modification or replacement of CFM and installations of equipment to obtain correct operation when the deficiency results from an error or omission in the contract drawings or specifications. Such items would not fall within the scope of Section

042, General Administrative Requirements of the 1984 edition of the General Specifications for Ships of the U.S. Navy.

- Modification of the installation of GFE to make the equipment operate correctly when the deficient installation is the result of inaccurate information furnished by the Government on the equipment or installation.

- Modification to correct safety-related deficiencies in government specifications and specified systems/equipment.

- Modification of systems already turned over to ship's force where defects discovered in operation are determined to be the responsibility of the Government.

Submarine Non-Deviation (ND) Program

As a part of the Submarine Safety Program, NAVSEA Headquarters has designated as vital certain non-nuclear systems and areas of nuclear submarines for establishing deep-diving capabilities. Working drawings and other data on these systems and areas are furnished to the contractor and must be followed without deviation, unless deviations are approved by NAVSEA Headquarters (SEA 05/07/08/SDM).

Upon receipt of an ND drawing or drawing revision, the contractor may choose to request a deviation. If the deviation is approved, the contractor can proceed in the manner requested without further authority as long as the procedure meets the specifications.

Should the contractor elect not to request a deviation or should the request for a deviation be disapproved, the contractor must proceed in strict accordance with the ND drawing. If the ND drawing or portion conflicts with the specification, the SUPSHIP will advise Headquarters that a change in specifications is necessary. Changes in specifications may be required when the ND drawing or revision limits the contractor in the choice of material or the method of performing the work, and requires the contractor to incur additional costs which would not have been required under the contract before issuance of the ND drawing or drawing revision. The field activity should be alert that the reverse could also happen, by which the requirements could be lessened and the Government could be entitled to a reduction in contract price. In either case, the field activity will notify NAVSEA Headquarters (SEA 05/07/08/SDM) that a specification change is required.

Field changes in this category may be initiated and approved at level IV only under submarine contracts which contain a provision that the Government will furnish working drawings and other data for non-nuclear systems and areas vital to submarine safety.

Field-initiated changes are authorized and will be issued under the following circumstances:

- In order to maintain delivery schedules, the field activity has approved actions in the ND areas before the ND drawing is received. The approved ND drawing, when

received, negates the earlier action. An FMR can be issued to cover the work and material made obsolete.

- Work is already in progress under an approved ND drawing when a revised ND drawing is issued which requires considerable rework, additional work, or material. An FMR may be issued to cover the rework or the additional work and material.

- An ND drawing (original issue) requires a particular type or method of installation which is within the scope of the applicable ship specifications but which imposes a restriction resulting in increased contractor costs in comparison with another identified method. The alternate method is one which could have been used within the scope of the specifications but which was not acceptable under the ND drawing requirements.

Trial Board Items to be Accomplished before Delivery

A field change may be initiated and approved at level IV to cover an item reported by the Trial Board and determined to be Government-responsible by NAVSEA, and which must be accomplished prior to delivery. Each specific Trial Board item covered will be referenced in the contract modification.

Changes to Accomplish ORDALTs on NAVSEA Equipment

Field changes of this type may be initiated and approved at level IV to accomplish modifications to NAVSEA equipment that are authorized by ORDALTs.

Correction of GFM

A field change may be initiated and approved at level IV in order to correct defects in material provided by the Government.

Improvements to Government-Furnished Electronics Equipment

Field changes may be initiated and approved at level IV to accomplish improvements or modernization of Government-furnished electronics equipment pursuant to requirements contained in an electronics field change or in an electronics information bulletin, provided the article in the bulletin contains the reference to authority and the urgency of accomplishment and the funding source.

Contractor Preparation of Formal ECPs

A FMR may be initiated and approved at level IV when the contractor is requested to submit a formal ECP (regardless of whether or not it was preceded by a preliminary ECP) either under a contract containing a configuration clause or the change proposal clause providing the intent is to categorize the changed work, if approved, as essential. If the changed work is not to be considered essential, the FMR is to be processed as an optional FMR.

Changes in Provisioning or Allowances

A FMR may be initiated and approved at level IV to adjust the quantitative requirements for provisioning or allowances when the quantities to be changed are part of the configuration baseline.

Changes of Higher Tier Documents

A FMR may be initiated and approved at level IV when a specific authorization for such a change is contained in a NAVSEA or higher tier instruction or notice and is classified as essential by the authorization. If the change is not classified as essential, it will be considered as an optional change.

Changes Which SUPSHIP Shall Consider Optional

The approval authority for HMRs and FMRs will designate changes which can be deferred for post-delivery accomplishment as optional. The determination that a level IV change is optional establishes a requirement that the ACO must either implement the FMR by a priced contract modification or return it for cancellation.

Approved Value Engineering (VE) Projects

A VE change proposed by a contractor under a contract containing a VE clause may be approved at level IV after it is approved in accordance with the command's VE Program. VE changes so initiated will include only those in which the contractor will share in savings resulting from the change.

Correction of Design Deficiencies

The PCO, CO and ship's force bring to the ship acquisition process additional operational experience which provides constructive additions to the oversight capability of the SUPSHIP. Design deficiencies not identified during construction or conversion are often identified later because of this different perspective.

Habitability Improvements

The detailed ship specifications for construction or conversion provide specific requirements for fulfilling the CNO specified habitability standards for each design. These specifications, along with the approved allowance list for the ship, provide specific identification of material necessary to meet OPNAV-specified standards. Contract language may authorize the PCU to select color schemes where not previously directed, the selection of furniture or furnishings from approved catalogs or lists, and minor arrangement changes. Contractual changes that support habitability improvements desired by the PCO, CO and ship's force must be limited to the standards specified for the ship by CNO and the flexibility allowed by the ship specifications.

Industrial Assistance for Ship's Force (SF)

Requirements for industrial assistance to the ship's force arise where a ship's force work package is included as part of the total work package. The contract should detail the amount and scope of Assist Ship's Force (ASF) work. Occasionally, however, assistance not covered by the contract may be required. In this circumstance, a field-initiated change may be approved at level IV, provided:

- It would normally be expected to be approved as an alteration after delivery.
- The PM may limit funds, e.g., the price of the change, increase, or decrease is not in excess of $25,000 gross per ship. The change approval maximum of $25,000 per ship will be the initial maximum threshold at contract award. Depending on varying conditions during the ship engineering development and construction, and as conditions warrant, the SUPSHIP can request a desired threshold increase from the cognizant Program Manager, who will approve or disapprove the request.
- It will result in no extension of delivery.
- The price adjustment will be within the limit established below.

The Program Manager will establish a maximum accumulative price increase for each ship over which the SUPSHIP will have full authority. The maximum price increase is not established as a discretionary fund for the PCO or CO.

The Program Manager and SUPSHIP are responsible for execution of construction and conversion contracts. The PCO and CO may advise the commanders and be responsible for the performance of ship's force work. While the responsibility for avoiding excesses such as waste, unauthorized alterations, imposition of personal taste for its own sake, and abuse of property rests primarily with the Supervisor, the Program Manager and PCO or CO are also responsible for adhering to CNO guidance.

The use of a CO's discretionary allowance from SCN funding accounts is *prohibited*. Habitability items, such as furniture installed in accordance with the ship construction or conversion specifications, will not be removed or replaced solely to achieve a more aesthetically pleasing arrangement.

Funding for keel laying, launching, and commissioning ceremonial expenses for newly constructed or converted ships cannot be used for PCO or CO changes or assistance requests. Expenditures of SCN funds for assistance to ship's force are limited to augmenting the ongoing efforts of the ship's force with labor, ship assistance material, or equipment. It is inappropriate to purchase furniture or furnishings with such funds. *ASF funding will not be used for any alteration work, unless approved by the cognizant Program Manager or Supervisor and documented by an appropriate HMR or FMR*.

NAVSEA will review all PCO- or CO-identified design deficiencies, requests for assistance for ship's force, and habitability change requests concurrent with SUPSHIP review. The cognizant Program Manager will establish procedures for recording change requests and

their subsequent approval or disapproval. Changes accepted will be processed as FMRs or HMRs, as appropriate. The PCO or CO will be advised of the action taken on each request. A separate monetary allowance will not be established for accomplishing changes requested by the PCO or CO.

Contract changes will be processed in accordance with this chapter. The field activity will advise the PCO or CO of these procedures.

No Cost or Reduced Cost Changes

A field change in this category may be initiated and approved within level IV authority to avoid rip-out or rework or to authorize items which do not conform to the letter of the specifications, provided the change results in cost savings and the installation made is satisfactory for the intended purpose.

A field change may be initiated and approved to relieve the contractor from accomplishing certain specification requirements prior to ship delivery, as permitted by un-starred, contractor-responsible items listed in the Trial Board Report. This authority is to be used only when the accomplishment of the corrective work by the contractor will delay ship delivery and the delay is unacceptable to NAVSEA Headquarters. If execution of a priced supplemental agreement prior to the departure of the ship is not possible, a work scope understanding is to be reached with the contractor before ship departure. A field-initiated change may be approved at level IV to cover defects and deficiencies discovered during the guarantee period, when correction of such deficiencies or defects is not to be accomplished by the contractor under the contract.

The FMR will indicate which of the above types of changes is involved, since there usually is a limitation of liability for correction of defects during the guarantee period. Normally, the changes under the above authority are processed as waivers; however, when the change is to be processed as an ECP, it will be processed under this authority. This authority may be used to initiate and approve at level IV field changes involving later military specifications or a section of the contract specifications, which simplify machinery items or systems, but do not alter their essential operation. Normally, such changes are processed as deviations; however, if it is felt that the deviation should be a permanent change applicable to future procurements and, therefore, processed as an ECP, it will be processed under this authority.

Field changes covering variances in specifications requirements may be initiated and approved at level IV for a variety of purposes, including:

- editorial corrections to the specifications
- minor plan rearrangements
- amplification of specification wording
- deletion of specification unnecessary requirements

In determining whether to initiate a field change, the FMR approval authority will consider the estimated cost to the Government of processing the change. However, the estimated cost will not in itself constitute cause for non-acceptance. If a field change is initiated, the approval authority should consider if the change has applicability to future projects and notify the PM for inclusion in follow-on contracts.

Deviations

General

SUPSHIP can expect to receive contractor requests for deviations, especially when the contractor is procuring material and preparing working drawings. SUPSHIP, therefore, will establish local procedures, in accordance with the requirements of MIL-HDBK-61A or MIL-STD-973 (canceled, but still invoked in some contracts) or an acceptable industry standard that:

- recognizes situations where deviations may be involved
- requires compliance with the configuration baseline requirements, except where a deviation has been authorized
- provides for appropriate control of requests for deviations, to take timely action on such requests, and make an accounting on the status of all requests
- requires the contractor to submit an ECP instead of a request for deviation when, in the opinion of SUPSHIP, the deviation should be incorporated in the requirements for a future contract
- requires ACO review of requests for deviations *prior* to approval

SUPSHIP will reach an understanding with the contractor regarding the format and content of requests for deviations.

Requirements in this section are not considered contractual since they reflect the minimum data required for evaluation of a request for deviation.

Approval Authority of SUPSHIP

SUPSHIP may approve a request for a deviation and issue an FMR, if required, when the proposed nonconformance is within the level IV authority for ECPs and FMRs. In instances where the request for a deviation is the direct result of verbal or written direction to the contractor or SUPSHIP from outside the SUPSHIP office, SUPSHIP will send the request to the Program Manager cognizant of the contract for approval and issuance of an HMR, provided the deviation is approved and a contractual requirement is involved.

Only the personnel designated in writing to approve ECPs and FMRs may approve a request for deviation and issue an FMR, when required. Furthermore, only the personnel designated in writing as the approval authority for ECPs may disapprove a request for deviation.

Procedures for Processing Requests for Deviations

SUPSHIP is to review each request for deviation to ascertain whether:

- The information provided is complete and sufficient for an understanding of the proposed nonconformance.
- The designation as critical, major, or minor is proper. If improper, SUPSHIP will change the designation and notify the contractor.
- The request for deviation should be processed as an ECP. As a general rule, an ECP will be required when, in the judgment of the reviewer, the deviation should be incorporated in the requirements of a future procurement. Additionally, an ECP may be required for a major or critical deviation when only the ECP format will provide all information needed for a decision for approval or disapproval. If the decision is to process the deviation as an ECP, the request for a deviation is to be returned to the contractor for ECP preparation, the cost of which will be borne by the Government. Subsequently, the ECP is to be processed by SUPSHIP in the same manner as any other ECP.

If the deviation is to be approved and SUPSHIP is the approving authority, an FMR may be required to implement a deviation, depending upon the configuration clause in the contract.

If the request for deviation is not within the level IV approval authority, it should be endorsed to the Program Manager. The endorsement is to contain a recommendation as to approval of the request and the rationale for the recommendation. In addition, the endorsement will contain a date by which the Program Manager decision is to be received.

If approval of the request for deviation does not require the issuance of an FMR and subsequent execution of a contract modification (see above), such approval may be granted by either execution of Block 27 on DD Form 1694 or favorable endorsement on the contractor's request if a letter format is used. Such approval must be executed by an individual holding ECP approval authority only after the ACO has determined that a contract modification is not required to implement the deviation requested by the contractor. If the request is to be disapproved, disapproval can be accomplished by either the completion of Block 27 on DD Form 1694 or by negative endorsement on the contractor's request if a letter format is used.

A follow-up system will be established to ensure the receipt of replies from the Program Manager by the date specified in the SUPSHIP endorsement of level III or higher requests.

SUPSHIP may disapprove a request for a critical or major deviation. In such instances, a copy of the request, with SUPSHIP's disapproval, is to be furnished to the Program Manager. SUPSHIP is to furnish the cognizant TYCOM with a copy of each critical or major deviation for a commissioned ship undergoing conversion at the time the request is forwarded to the Program Manager.

All requests for deviations are to be processed as expeditiously as practical. For critical or major deviations, a thorough analysis will be made of any impact on delivery schedules, as well as costs, cited in the request for deviation. SUPSHIP will furnish the Program Manager with a copy of each authorized minor deviation. Copies of contract modifications authorizing deviations will be forwarded to the Program Manager.

Records

SUPSHIP is to maintain complete records, including appropriate control records, of all deviation requests and their disposition. Records of approved deviations are to be integrated into the SUPSHIP QA system as the basis for Government acceptance of the ship. A local instruction should define acceptance criteria.

Waivers

Excessive numbers of requests for waivers may indicate that there are defects in the contractor's processes that are leading to non-compliant work that may result in the requirement to increase surveillance of the ongoing processes/industrial procedures. The seriousness of the defect/non-compliant item is classified as minor, major or critical. SUPSHIP procedures should require that, when the incidence of requests for waivers is high, consideration should be given to conduct an audit of the contractor's processes and inspection procedures to ascertain if corrective action is required. The aim is to preclude a high incidence of major or critical requests for waivers, although requests for minor deviations also require consideration.

Processing requirements regarding deviations are generally applicable to waivers.

Appendix 5-E: Independent Work Progressing

Background

Ship construction projects are obviously large and complex projects encompassing tens of thousands of individual tasks and work packages. Shipbuilders will typically have a dedicated progressing group that tracks the status and progress of all open work packages in order to assess overall project progress against the Integrated Master Plan (IMP) and Integrated Master Schedule (IMS) (see Ch 7 – Earned Value Management). It is impractical for a SUPSHIP to create a similar group within its own organization for the sole purpose of developing an independent measure of shipbuilder progress. Moreover, FAR 42.1104 (Surveillance Requirements) states that "contract administration offices [SUPSHIPs] shall make maximum use of any reliable contractor production control or data management systems". For these reasons, SUPSHIPs rely primarily on the shipbuilder's EVMS for determining work progress SUPSHIPs rely primarily on the shipbuilder's EVMS for determining work progress and only perform independent work progressing when the shipbuilder's system proves inadequate.

Independent Work Progressing

Independent work progressing is the process of developing an independent, objective measure of a contractor's progress. It differs from EVM progress in that it is based on the government's observation of work performed rather than the approved progressing methods outlined in the company's EVM system description. Independent work progressing can be a useful tool for validating project progress when dictated by circumstances such as:

- EVMS not required by contract
- Shipbuilder's EVMS is not certified
- Shipbuilder's EVMS produces questionable data
- SUPSHIP questions progress reported by shipbuilder

Prior to implementing independent work progressing, SUPSHIP should analyze the shipbuilder's progressing system and collaborate with him to resolve issues concerning the methodology, assumptions and data used to develop progress estimates. SUPSHIP and DCAA also conduct surveillance of the shipbuilder's EVMS which provides the government with insight into deficiencies in the shipbuilder's system. Resolving these deficiencies can improve the government's confidence in the shipbuilder's progressing data and negate the need to conduct independent work progressing.

The Supervisor will determine when independent work progressing is necessary, as well as the scope of work to be assessed and the methodology to be employed. Care must be given in making these determinations in order to ensure that the process is efficient and meaningful and that the value to the government is commensurate with the effort expended. When independent work progressing is to be implemented, a plan should be developed to describe in detail the scope and methodology to be used.

The following sections provide two basic methodologies for conducting independent work progressing; one for progressing design contracts (or the design phase of design/build contracts) and one for the progressing of construction contracts. Each of these methods is a

simplistic representation and requires significant development before implementing independent progressing. Alternatively, a SUPSHIP may elect to employ an entirely different approach from the methodologies provided here. In all cases, however, it is important to have a clear understanding of the contractor's progressing system in order to ensure the government methodology provides a valid basis for comparison.

Independent Work Progressing of Design Contracts or the Design Phase of Design/Build Contracts

This progressing methodology is based on accomplishment of key phases and products of the design contract. The assessment includes physically checking the status of key milestones, phases and a sampling of design products, including: drawings, long-lead-time material, design specifications, zone disclosures, design reviews, modeling, extractions, or other breakdowns of work.

Example: The evaluation system is based on a "spot check" process for three distinct areas:

1) Drawing Status: Utilizing the shipbuilder's drawing schedule for total drawings by SWBS, randomly select a sample size based on the number of drawings reported to have been started.

Progress Criteria: Assign completion status based on accepted standard, such as:
a). Number of drawings sampled
b). Number of drawings reported started but no visible progress: 0%
c). Number of drawings where there is actual progress observed: 50%
d). Number of drawings signed/approved: 100%

Compile results for the sampled drawings to project overall progress for drawing development.

2) Long Lead Time Material (LLTM): Utilizing the shipbuilder's and government approved list of long lead item material, percent completed will be based on total purchase orders issued for LLTM items divided by the total number of required LLTM items on the list. (example: one purchase order issued for one of ten required LLTM items would be assessed as 10% complete).

3) Specification Package Development: The total number of specification packages completed divided by the total number of specification packages required.

Apply weighted values to each component of the contract (e.g., drawing development 70%, LLTM 10%, specification development 20%) to project overall progress.

Independent Work Progressing of Construction Contracts

This methodology employs assessment of independent, "event-driven" data. The process described below refers to a single construction phase that includes all construction, testing and trials. SUPSHIPs may choose to further divide construction into pre-/post- float-off phases, construction/testing phases, or some other phasing of work that is more suitable for a given construction contract.

Process for Determining Construction Progress
This process is based on:

1) Measuring unit construction based on weighted values for the unit and the associated construction tasks necessary to complete the unit and integrate it into modules or blocks.

2) Assigning progress values for:
   a) Achieving key milestones and major events
   b) Completing compartment close-out
   c) Completing testing and trials

3) Summing the progress values determined in steps 1 and 2

Table 5-G-A provides a generic construction progress model for a ship constructed in four modules with each module consisting of the identified number of units. Each unit is assigned a weighted value relative to its contribution to the completion of the completely assembled module. The key events associated with the construction of each unit are also assigned a value relative to the effort required to complete construction and integration of the unit into its module.

The lower portion of Appendix A shows a method for assessing the contribution to overall progress based on completion of ship testing and compartment close-out, as well as sample milestones and major events that would be assigned progress values based on completion.

Table 5-E-A: Generic Model for Estimating Overall Ship Progress

Module	Unit Number	Unit Weight	Startup for Fabrication	Complete Fabrication	Complete Blast & Prime	Complete Unit Fit-up	Complete Outfitting	Assembly Erection	Complete Unit Weld-out	Module Integration	SOS %	Total Complete
			0.1	0.15	0.05	0.1	0.2	0.2	0.15	0.05		
Module A												
A	100	0.2586207	0.02586	0.03879	0.01293	0.02586	0.05172	0.05172	0.03879	0.01293		
A	101	0.2586207	0.02586	0.03879	0.01293	0.02586	0.05172	0.05172	0.03879	0.01293		
A	102	0.2586207	0.02586	0.03879	0.01293	0.02586	0.05172	0.05172	0.03879	0.01293		
?	?	0.2586207	0.02586	0.03879	0.01293	0.02586	0.05172	0.05172	0.03879	0.01293		
?	?	0.2586207	0.02586	0.03879	0.01293	0.02586	0.05172	0.05172	0.03879	0.01293		
A	157	0.2586207	0.02586	0.03879	0.01293	0.02586	0.05172	0.05172	0.03879	0.01293		
Module B												
B	200	0.6896552	0.06897	0.10345	0.03448	0.06897	0.13793	0.13793	0.10345	0.03448		
B	201	0.6896552	0.06897	0.10345	0.03448	0.06897	0.13793	0.13793	0.10345	0.03448		
B	202	0.6896552	0.06897	0.10345	0.03448	0.06897	0.13793	0.13793	0.10345	0.03448		
?	?	0.6896552	0.06897	0.10345	0.03448	0.06897	0.13793	0.13793	0.10345	0.03448		
?	?	0.6896552	0.06897	0.10345	0.03448	0.06897	0.13793	0.13793	0.10345	0.03448		
B	228	0.6896552	0.06897	0.10345	0.03448	0.06897	0.13793	0.13793	0.10345	0.03448		
Module C												
C	300	0.3846154	0.03846	0.05769	0.01923	0.03846	0.07692	0.07692	0.05769	0.01923		
C	301	0.3846154	0.03846	0.05769	0.01923	0.03846	0.07692	0.07692	0.05769	0.01923		
C	302	0.3846154	0.03846	0.05769	0.01923	0.03846	0.07692	0.07692	0.05769	0.01923		
?	?	0.3846154	0.03846	0.05769	0.01923	0.03846	0.07692	0.07692	0.05769	0.01923		
?	?	0.3846154	0.03846	0.05769	0.01923	0.03846	0.07692	0.07692	0.05769	0.01923		
C	338	0.3846154	0.03846	0.05769	0.01923	0.03846	0.07692	0.07692	0.05769	0.01923		
Module D												
D	400	0.4166667	0.04167	0.06250	0.02083	0.04167	0.08333	0.08333	0.06250	0.02083		
D	401	0.4166667	0.04167	0.06250	0.02083	0.04167	0.08333	0.08333	0.06250	0.02083		
D	402	0.4166667	0.04167	0.06250	0.02083	0.04167	0.08333	0.08333	0.06250	0.02083		
?	?	0.4166667	0.04167	0.06250	0.02083	0.04167	0.08333	0.08333	0.06250	0.02083		
?	?	0.4166667	0.04167	0.06250	0.02083	0.04167	0.08333	0.08333	0.06250	0.02083		
D	447	0.4166667	0.04167	0.06250	0.02083	0.04167	0.08333	0.08333	0.06250	0.02083		

Module	
A	15%
B	20%
C	15%
D	20%
	70%

System Test	10	Nr Tests Comp / Nr Tests Sked
Major Events	10	e.g.: Keel laying, float-off, main engine L/O, dock trials, Aegis L/O, criticality, B/T, A/T
Compt Cose-out	10	Nr Compts Completed / Total Nr Compts
	30%	

Appendix 5-F: Sample Recurring Reports

Project Snapshot

Report Date

1. **Project Areas of Concern**
   - High level production/technical/contract issues
   - Key issues and impact
2. **Recently Completed Events**
   - Ship and/or other project events
3. **Upcoming Events**
   - Ship and/or other project events
4. **Critical Actions Awaiting Resolution**
   - Include internal and external stakeholder support

PAGE 1

HULL

List key project/hull personnel

Schedule	Cost	Quality	Optional
Cum / Cur / Cum chg SPI: 0.000 / 0.000 / (0.000)	Cum / Cur / Cum chg CPI: 0.000 / 0.000 / (0.000)		

Effective Date

- Positive Trend
- Level Trend
- Negative Trend

Equivalent Heads (reporting period)			
	Scheduled	Actual	Delta (+/-)
Current			
Previous			

Percent Complete (reporting period)			
	% Schedule	% Complete	Delta (+/-)
Current			-
Previous			-

Schedule Counts Optional (eg tests, work bills) (reporting pd)			
	Schedule To Complete	Actual Complete	Delinquent To Complete
Current			
Previous			

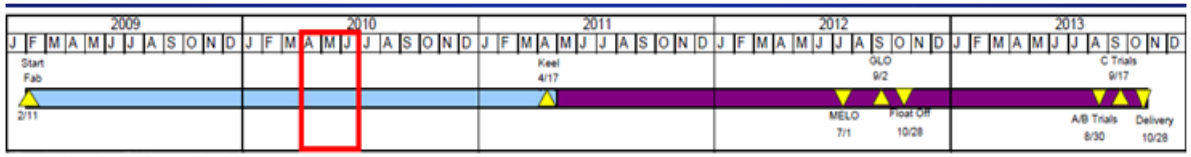
Schedule Counts Optional (eg tests, work bills) (reporting pd)			
	Schedule To Complete	Actual Complete	Delinquent To Complete
Current			
Previous			

Milestones/Key Events	Watch Items

PAGE 2

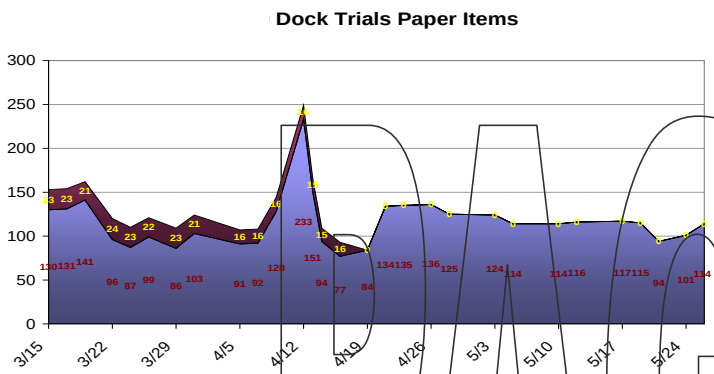
Hull picture or seal

Visual hull construction timeline (example below)

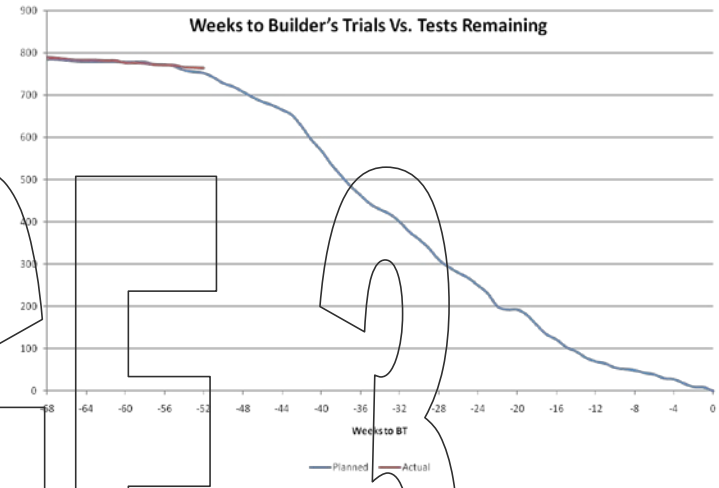


Hull

Phase Driven Design/Production/Test Metrics (example below)

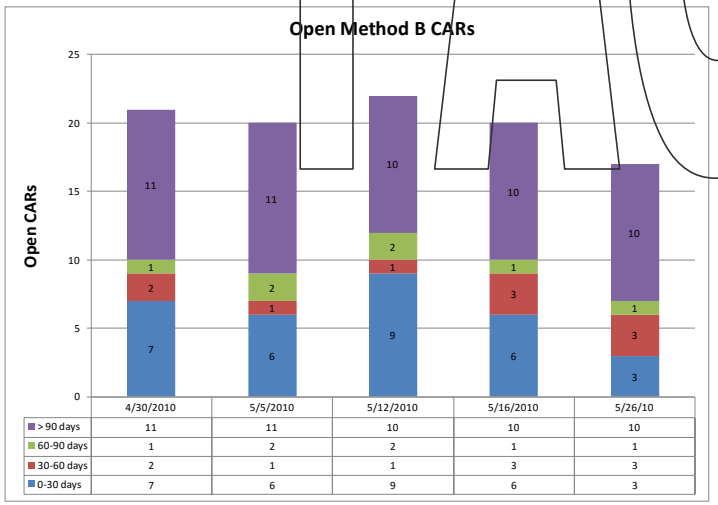


Phase Driven Design/Production/Test Metrics (example below)

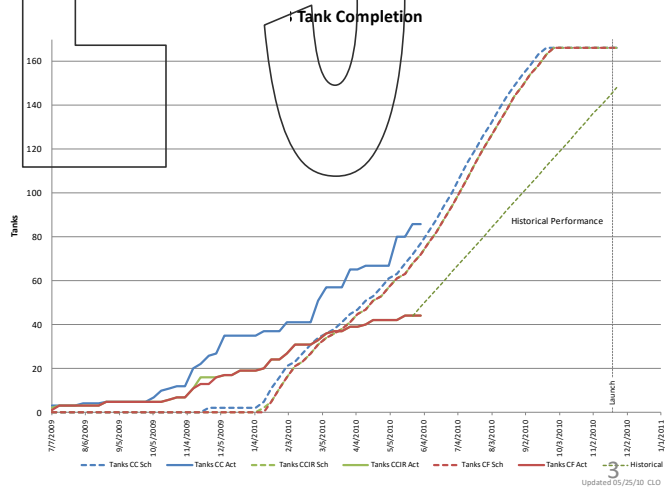


LEGEND

Phase Driven Quality Metric (example below)



Phase Driven Design/Production/Test Metrics (example below)



EVMS Status Report
Ship Name (Navy Hull Number)
Month Ending: Feb - 2010

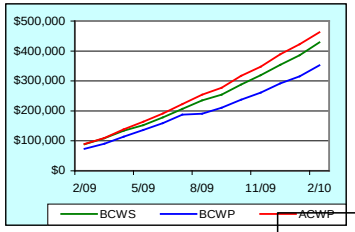
Vendor	Vendor		
Contract	Contract Number		
Prog Office	Program Office	Contract Type	Contract Type
Start Date	Contractual Start	Est End Date	Estimated Finish

	TOTAL CONTRACT (1)		TOTAL MAN HOURS (2)	
CPI	0.761	(up)	0.747	(no chg)
SPI	0.821	(no chg)	0.871	(down)
% SPENT	13.03%		12.64%	
% SCHEDULED	12.07%		10.84%	
% PROGRESS	9.91%		9.44%	
UB	$0		0	
MR	$83,514		1,259	
BAC	$3,551,138		39,534	
TAB	$3,634,652		40,793	
LRE	$3,634,652		40,793	
EAC	$4,531,766		48,636	
VAC-LRE	$0		0	
VAC-EAC	($897,114)		(7,842)	

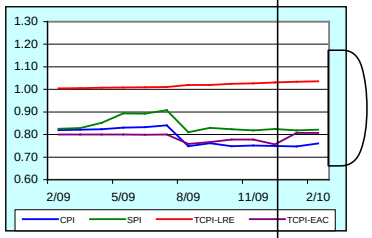
SUPSHIP Assessment

(1) Note: Dollars and man-hours are in thousands
(2) Labor Man-Hours include all direct charged man-hours

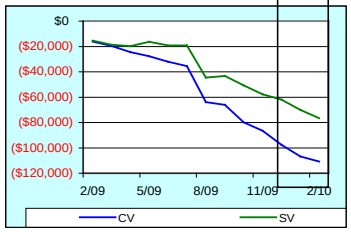
EVM Progress (1)



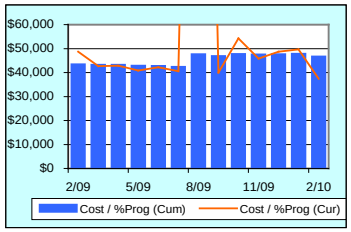
Indices (Cum) - Total Contract ($)



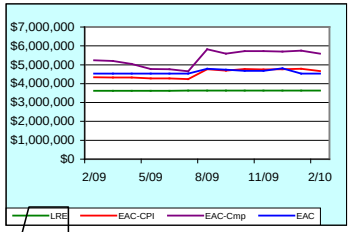
Variances(Cum) - Total Contract (1)



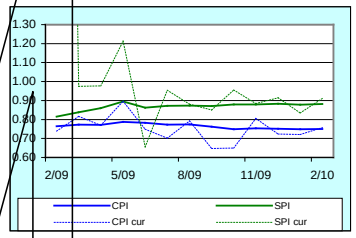
Cost per % Progress - Contract (1)



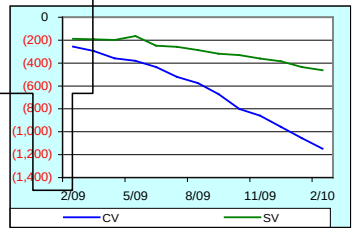
Estimates at Completion (1)



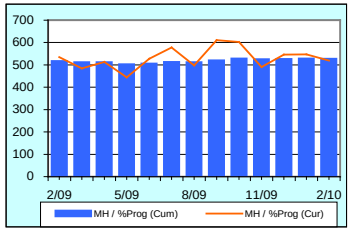
Indices (Cum) - Labor MHs (2)



Variances (Cum) - Labor MHs (1) (2)



MHs per % Progress (1) (2)



Appendix 5-G: Acronyms

ACO	Administrative Contracting Officer
AIT	Alteration Installation Team
AP	Acquisition Plan
APM	Assistant Program Manager
APUC	Average Procurement Unit Cost
ASF	Assist Ship's Force
ASN(RD&A)	Assistant Secretary of the Navy (Research, Development and Acquisition)
AT	Acceptance Trial
AT/FP	Anti-Terrorism/Force Protection
AU	Assessable Unit
B&P	Bid and Proposal
BOA	Basic Ordering Agreement
BT	Builder's Trials
BTA	Business Transformation Agency
CAR	Corrective Action Request
CAS	Contract Administration Service
CCB	Configuration Control Board
CCO	Chief of the Contracting Office
CCT	Customer Contracted Team
CDRL	Contract Data Requirements List
CFM	Contractor Furnished Material

CFR	Code of Federal Regulations
CHENG	Chief of Engineering
CM	Configuration Management
CMA	Crew Move Aboard
CNO	Chief of Naval Operations
COR	Contracting Officer’s Representative
COTR	Contracting Officer’s Technical Representative
CPARS	Contract Performance Assessment Reporting System
CPI	Cost Performance Index
CQI	Continuous Quality Improvement
CSMP	Consolidated Ships Maintenance Plan
CT	Combined/Super Trial
DAU	Defense Acquisition University
DAWIA	Defense Acquisition Workforce Initiative Act
DCAA	Defense Contract Audit Agency
DCMA	Defense Contract Management Agency
DD Form	Department of Defense Form
DFARS	Defense Federal Acquisition Regulation Supplement
DoD	Department of Defense
DoDINST	Department of Defense Instruction
DOT	Department of Transportation
DPM	Deputy Program Manager
DPMR	Deputy Program Manager’s Representative
ECP	Engineering Change Proposal

EOB	Expense Operating Budget
ER	Engineering Report
ERP	Enterprise Resource Planning
EV	Earned Value
EVMS	Earned Value Management System
FAR	Federal Acquisition Regulation
FCT	Final Contract Trial
FISC	Fleet Industrial Support Center
FMR	Field Modification Request
FTR	Final Test Report
GAO	Government Accountability Office
GFE	Government Furnished Equipment
GFI	Government Furnished Information
GFM	Government Furnished Material
GFP	Government Furnished Property
HMR	Headquarters Modification Request
IBR	Integrated Baseline Review
IC	Internal Control
IDP	Individual Development Plan
IEB	Incentive Evaluation Board
IMS	Integrated Master Schedule
INSURV	Board of Inspection and Survey
INSURVINST	Board of Inspection and Survey Instruction
IPTD	Integrated Project Team Development

IR&D	Independent Research and Development
ISIC	Immediate Superior in Command
ISO	International Organization for Standardization
J&A	Justification and Approval
JFFM	Joint Fleet Maintenance Manual
LAN	Local Area Network
LLTM	Long Lead Time Material
LOA	Light-Off Assessment
MAIT	Major Area Integration Team
MAT	Major Area Team
MCP	Management Control Program
MDAP	Major Defense Acquisition Program
MIC	Manager’s Internal Control
MICP	Manager’s Internal Control Program
MICP	Manager’s Internal Control Program
MIL-HDBK	Military Handbook
MIL-STD	Military Standard
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MSC	Military Sealift Command
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction
NCH	NAVSEA Contracts Handbook
NCPI	NAVSEA Performance and Compliance Inspection

ND	Non-Deviation
NOC	Notification of Change
NSA	Nuclear Support Agreement
NSA	Naval Supervising Activity
O&M,N	Operations and Maintenance, Navy
OMMS-NG/SNAP	Organizational Maintenance Management System-Next Generation/Shipboard Non-Tactical Automated Data Processing
OPCON	Operational Control
OPNAVINST	Chief of Naval Operations Instruction
ORDALT	Ordnance Alteration
PARM	Participating Acquisition Resource Manager
PAUC	Program Acquisition Unit Cost
PCO	Procuring Contracting Officer
PCO	Prospective Commanding Officer
PCU	Pre-Commissioning Unit
PD	Position Description
PEO	Program Executive Officer
PM	Program Manager
PMB	Performance Measurement Baseline
PMBOK	Project Management Body of Knowledge
PMR	Program Manager Representative
PMR	Program Manager’s Representative
POAM	Plan of Action and Milestones

POC	Point of Contact
PORSE	Post Overhaul Reactor Safeguard Examination
PPI	Past Performance Information
PRECOMUNIT	Pre-Commissioning Unit
QA	Quality Assurance
QPPC	Quarterly Production Progress Conference
QPPR	Quarterly Project Progress Report
REA	Request for Equitable Adjustment
RFP	Request for Proposal
RSE	Reactor Safeguard Examination
SACM	Submarine Availability Completion Program Manual
SC,N	Ship Construction, Navy
SCA	Ship Cost Adjustment
SCCB	SUPSHIP Change Control Board
SCCB	SUPSHIP Configuration Control Board
SCP	Specification Change Proposal
SDM	Ship Design Manager
SF	Ship’s Force
SFDI	Ship’s Force Deficiency Item
SOA	Statement of Assurance
SOE	Schedule of Events
SOW	Statement of Work
SPI	Schedule Performance Index
SPS	Standard Procurement System

SUBSAFE	Submarine Safety Certification Program
SUPSHIP	Supervisor of Shipbuilding, Conversion and Repair, USN
SWFT	SUPSHIP Workload Forecasting Tool
TAR	Technical Analysis Report
TCP	Test Change Proposal
TMIN	Technical Manual Identification Number
TOC	Theory of Constraints
TP	Test Procedures
TPR	Test Problem Report
TSM	Technical Support Management
TSTP	Total Ship Test Program
TYCOM	Type Commander
UCR	Unit Cost Reporting
VE	Value Engineering
VP	Vice President

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Chapter 6 – Cost Estimating

Table of Contents

6.1 Introduction 6-4

6.2 Types of Estimates 6-4
6.2.1 Pre-Contract Award Estimating 6-4
6.2.1.1 Cost Risk Analysis 6-5
6.2.2 Preliminary Cost Estimating 6-5
6.2.3 Contract Cost Estimate 6-5
6.2.4 Post-Contract Award 6-6
6.2.5 Estimate at Completion (EAC)/Predicted End Cost (PEC) 6-6
6.2.6 Contract Modifications 6-6

6.3 Classification of Estimates 6-7
6.3.1 Classification of Ship Repair Cost Estimates 6-7
6.3.1.1 Class A – Detailed Cost Estimate 6-7
6.3.1.2 Class C – Budget Quality Estimate 6-7
6.3.1.3 Class D – Feasibility Estimate 6-7
6.3.1.4 Class F – “Ballpark” Estimate 6-7
6.3.1.5 Class X – Directed or Modified Estimate 6-7
6.3.2 Classification of New Construction Cost Estimates 6-8
6.3.2.1 Class C – Budget Quality Estimate 6-8
6.3.2.2 Class D – Budget Quality Estimate (Conversion/Modernization/SLEP) 6-8
6.3.2.3 Class F – Feasibility Design (“Ball Park”) Estimate 6-8

6.4 Standard Estimating for Ship Repair and Modernization 6-8
6.4.1 Average Contractor 6-9
6.4.2 Elements of Standard Estimating 6-9
6.4.3 Standard Estimating Example 6-9

6.5 Estimating Environment 6-12
6.5.1 Environment Defined 6-12
6.5.2 Cost Accounting Standards 6-12
6.5.3 Other Factors Affecting the Contractor’s Estimating Environment 6-13

6.6 Cost Estimating Methods, Standardization, Standards, and Techniques 6-14
6.6.1 Variables 6-14
6.6.2 Standardization of Cost Estimates 6-14
6.6.2.1 Estimating Standards 6-15
6.6.3 Detailed Estimating Techniques 6-15
6.6.4 Use of Historical Data 6-16
6.6.4.1 Return Cost Statistics 6-16
6.6.4.2 Estimated Cost Statistics 6-17

6.6.4.3 Adjustment to Historical Cost Data 6-17
6.6.5 General Estimating Methods 6-17
6.6.5.1 Round Table Estimating 6-17
6.6.5.2 Comparison Estimating 6-17
6.6.5.3 Detailed Estimating 6-17
6.6.5.4 Parametric Cost Estimating 6-18

6.7 Estimating for Contract Modifications 6-19
6.7.1 Contractor Modifications 6-19
6.7.2 Acceleration 6-19
6.7.3 Disruption 6-20
6.7.4 Delay 6-20

Appendix 6-A: Standard Cost Estimate 6-21

Appendix 6-B: Acronyms 6-23

References

(a) NAVSEA 2005 Cost Estimating Handbook

(b) NAVSEAINST 7300.14B, Classification of Cost Estimates for Ships

(c) NAVSEAINST 4710.7A (cancelled), Standard Cost Estimating Form for Private Sector Overhaul and Repair Availabilities

(d) Joint Fleet Maintenance Manual (JFMM)

Tables

Table 6-1: Sample Contractor Charts of Accounts for Direct Labor 6-11

Chapter 6 – Cost Estimating

6.1 Introduction

The purpose of this chapter is to provide SUPSHIP personnel with background information regarding the preparation of government cost estimates. This chapter supplements the Federal Acquisition Regulation which establishes the requirements for an independent Government cost estimate to be used in the evaluation of bids and proposals. Cost estimates form the basis for major program acquisition decisions and for management decisions by Fleet, NAVSEA, and Program Office customers in the planning, programming, and budgeting of new construction, repair, and modernization work. Additionally, contracting activities require cost estimates for new procurements prior to issuing a solicitation, for modifications to a contract after award, for resolution of entitled claims, and to close out contracts that have been terminated.

6.2 Types of Estimates

There are six occasions when estimates may be required in conjunction with ship construction and repair contracts. These include:

1. Pre-Contract Award
2. Preliminary Cost
3. Contract Cost
4. Post-Contract Award
5. Predicted End Cost (PEC)/ Estimate at Completion (EAC)
6. Costs for Contract Modifications

6.2.1 Pre-Contract Award Estimating

For new ship acquisition programs, the NAVSEA Cost Engineering and Industrial Analysis Group (NAVSEA 05C) is responsible for developing cost estimates and for supporting both the Program Manager (PM) and the NAVSEA Contracts Directorate (NAVSEA 02) in proposal evaluation. Reference (a), the NAVSEA 2005 Cost Estimating Handbook, provides an explanation of the overall process of developing cost estimates for major acquisition programs.

Pre-award estimating can be associated with either competitive or non-competitive procurements. Estimating non-competitive procurements is less complex because the identity of the contractor is known prior to award. Estimating for competitive awards is more complex because of the uncertainties associated with contractor labor rates, capabilities, and

other cost factors. In both cases, the general approach to preparing labor hour and material estimates is the same.

Estimating total costs for a “first of a kind” major construction program are based on Cost Engineering principles that include detailed cost risk analysis. NAVSEA utilizes an analysis process that examines the finite elements of a program to identify all key cost risk factors, such as those associated with the complexity of the design, availability, demand for material (steel, aluminum) and equipment in the international market place, integration of state of the art technology into system operations, and workload in potential bidder’s facilities. Included also is an analysis of the overall experience of the shipbuilding industry in constructing emerging naval architectural innovations.

6.2.1.1 Cost Risk Analysis

Cost Risk Analysis is performed by NAVSEA 05C Cost Engineers to quantify the uncertainty and variability (risks) associated with major acquisition (ACAT 1) programs. The results of this detailed analysis:

- enable informed investment decisions based on levels of confidence and the probability of success
- support program margin and shortfall assessment
- identify the variables that account for significant risk in the project
- assist in determining the cost risk that the Navy decision authority is willing to accept

6.2.2 Preliminary Cost Estimating

The preliminary cost estimate is the estimate that is prepared in advance of a contract award. It may be developed by the government or solicited from a contractor. It is prepared in terms of labor and material quantities required, without reference to labor rates. Contingencies for growth and other uncertainties are not considered in the estimate. The rates to be applied to the labor estimate are dependent on the competitive environment. In the case of non-competitive procurements, the rate used is that applicable to the contractor who will do the work. In the case of competitive procurements, a composite rate must be determined based on a prorated average for the anticipated solicitation area.

6.2.3 Contract Cost Estimate

Prior to award of a contract, the Contracting Officer must be satisfied that the contract price is fair and reasonable. An integral part of this process is comparing and analyzing the contractor's price to an independent estimate prepared by the Government. This estimate is referred to as the Independent Government Estimate for the contract or the "Contract Cost Estimate". It is determined by applying the appropriate composite rate, adjusted to reflect current market conditions, to the preliminary labor estimates and current material prices to

required material quantities. The sum of the labor and material estimates is the Contract Cost Estimate. The original Contract Cost Estimate is retained as a part of the contract file.

6.2.4 Post-Contract Award

After contract award, the Contract Cost Estimate is adjusted to reflect the successful contractor's current labor rates. The contracting officer will determine the current Other Direct Labor Factor (ODLF) applicable to the contractor and apply it to the contractor's current Forward Pricing Rates to determine the labor rate to be used in establishing the Final Cost Estimate. This labor rate, in lieu of the competitive composite rate, is applied to the Preliminary Cost Estimate to calculate the Final Cost Estimate. The difference between the Final Cost Estimate and the contract award price represents the potential profit or loss of the contractor that should be maintained throughout the performance period, as stated in the Doctrine of Equitable Adjustment. A contractor that "buys-in" to a contract (submits a bid lower than his estimated cost or with little or no profit in order to win the bid) should not be allowed to recover the loss through excessive prices in contract modifications after award. Likewise, the Government must not attempt to reduce the contractor's potential profit by allowing insufficient consideration for changes after award.

6.2.5 Estimate at Completion (EAC)/Predicted End Cost (PEC)

The Estimate at Completion (EAC) is the estimated cost to complete all work for a new construction contract or project. Although EACs are routinely generated by the contractor (see Chapter 7, Earned Value Management System), SUPSHIPs evaluate these estimates and will, when appropriate, develop independent EACs for the program office and NAVSEA headquarters.

The Predicted End Cost (PEC) is the estimated cost of all work in a ship repair availability. The PEC equals the Award Price or Base Cost plus the estimated cost of other items that are not covered by the Award Price/Base Cost. Other items may include fees, growth, new work, Government-Furnished Material (GFM), messing and berthing, and boat repairs. Advance planning funds or funds that are provided to other activities should not be included in the estimate. The PEC does not establish financial obligations on customers, but rather is the Government's estimate of what the repair project is most likely to cost.

6.2.6 Contract Modifications

Estimates for contract modifications can vary widely in their level of detail and accuracy based on the intended purpose. A Program Manager or Type Commander may simply need a rough order of magnitude (ROM) estimate in order to make a decision on a contract modification, while a more accurate estimate would typically be required for a Technical Advisory Report (TAR) associated with a contract modification. In general, the level of detail required for a contract modification estimate is dictated by the requirements of the ACO to ensure the government is paying a fair and reasonable price for the contract modification.

6.3 Classification of Estimates

The following sections address the classifications that are commonly used for estimating costs for ship repair work and those that are used for new construction, conversion, major modernization and Service Life Extension Programs (SLEP).

6.3.1 Classification of Ship Repair Cost Estimates

6.3.1.1 Class A – Detailed Cost Estimate

A Class A estimate is an extensive cost estimate based on detailed engineering drawings, material lists, and man-hours by required skills and trades. The level of detail addressed in a Class A estimate should be to the maximum extent feasible. It is comparable to a fixed-price offer developed by a naval shipyard or a manufacturing estimate prepared in private industry. Variance is not expected to exceed 10 percent.

6.3.1.2 Class C – Budget Quality Estimate

Class C estimates are generally considered to be the best cost estimate attainable for new construction and modernization/repair. It is the recommended cost estimate developed by a field activity for use in budget submissions. They are normally prepared prior to award of a contract. Variance is not expected to exceed 15 percent.

6.3.1.3 Class D – Feasibility Estimate

Class D estimates are required prior to completion of the design or preparation of detailed specifications, reflecting the uncertainty associated with having incomplete information available for estimating purposes. It is usually exploratory in nature and is prepared to perform trade-offs and cost analysis. Variance is not expected to exceed 20 percent.

6.3.1.4 Class F – “Ballpark” Estimate

Class F estimates are known as "ballpark" estimates. This is a quick cost estimate prepared in the absence of design and cost information and is based on gross approximations. It is calculated by escalating previous costs to current dollars, using empirical costs for similar work, and adding factors for expected changes in design, processes, procedures, and other economic considerations. They may be acceptable when higher-level estimates are not possible due to insufficient time or incomplete information. Variance is not expected to exceed 40 percent.

6.3.1.5 Class X – Directed or Modified Estimate

A Class X estimate is an estimate provided by other Government activities or as directed by higher levels of authority. It is generally a total cost restriction without a developed design, engineering, or a detailed cost estimate. A directed estimate is also a modification of any previous cost estimate, Classes A through F, to conform to budget reductions or restrictions on cost which is not based on a change in the scope of work required.

6.3.2 Classification of New Construction Cost Estimates

See reference (b), NAVSEAINST 7300.14B, Classification of Cost Estimates for Ships for additional information regarding this topic.

6.3.2.1 Class C – Budget Quality Estimate

This is the highest quality cost estimate attainable in the planning, programming, and budgetary process for a new construction ship. A Class C estimate is the recommended classification of cost to be used for budget submittals to Congress, NAVCOMPT, and OSD/OMB for the current budget year.

6.3.2.2 Class D – Budget Quality Estimate (Conversion/Modernization/SLEP)

For a conversion, major modernization, or SLEP cost estimate to conform to this classification, the detailed scope of work requirements shall include the description and weights of equipment or systems to be removed, relocated, or added, as well as a list of proposed ship alterations (SHIPALTs), GFM, and an adequately defined repair package. Because of the uncertainties related to this type of work, the Class C estimate is not used until after contract award.

6.3.2.3 Class F – Feasibility Design ("Ball Park") Estimate

Class F estimates are those costs prepared by using design information resulting from ship feasibility studies. The ship feasibility study produces at least a rough, one digit SWBS (Ship Work Breakdown Structure) group of weights, and only general guidance with respect to major electronics and weapons equipment. Costs that fit this classification also involve those derived by inflating to current dollars a previous cost for a similar ship and making gross adjustments for expected changes in design, program requirements, or program cost factors.

6.4 Standard Estimating for Ship Repair and Modernization

The standard estimating procedures was established by reference (c), NAVSEAINST 4710.7A (cancelled), Standard Cost Estimating Form for Private Sector Overhaul and Repair Availabilities. These procedures were established in order to ensure a common basis and consistent application of SUPSHIP estimating methodology for ship repair and modernization. The requirements of reference (a) are not applicable to estimates for ship construction, but they do provide insight into considerations for developing Government estimates.

Reference (d), the Joint Fleet Maintenance Manual (JFMM), Volume VII, Chapter 5, provides detailed information and procedures concerning preparation of estimates for ship repair and modernization work.

6.4.1 Average Contractor

In a competitive procurement, the identity of the contractor cannot be determined until after contract award. Therefore, some assumptions must be made about the contractor in order to define the estimating environment. For estimating purposes, the assumption is made that an average contractor under average conditions will perform the work. This assumption, however, also leads to problems since it is difficult to define an "average" contractor, i.e., one that possesses average facilities, equipment, tools, workforce, etc. To address this problem, NAVSEA directed that estimates for competitive procurements be prepared on Appendix 6-A (excerpt from NAVSEAINST 4710.7A). This instruction, together with the "average contractor" and "average condition" assumptions, defines the framework for standard estimating for competitively awarded availabilities. To ensure the validity of estimates, labor rates applied to labor estimates must be consistent. This requirement derives from the basic accounting requirement that estimating systems be consistent with applicable accounting systems.

6.4.2 Elements of Standard Estimating

Appendix 6-A supports estimating for 13 labor elements and an additional element for quality assurance personnel. An update to this form is used for repair planning via the Master Spec Catalog (MSC) and includes two additional direct labor elements: firewatches and supervisors. Although these labor elements can be categorized as the “hard-core” direct labor elements, they may not correspond exactly with a contractor’s labor categories. Table 6-1 shows general descriptions of labor categories that may be found in any shipyard. The titles in the formal contractor chart of accounts will vary from contractor to contractor; however, the work performed by personnel in those labor categories is always charged as direct labor. For this reason, these labor elements are defined as "hard-core" labor elements in discussions regarding estimating systems. In standard estimating, the hard-core labor elements are the only labor elements estimated by the estimator. All other labor required to perform the work being estimated is considered to be overhead labor or "other direct labor." Neither overhead nor other direct labor is estimated by the estimator. These two elements, "overhead" and "other direct labor," are accounted for by applying factors for overhead and other direct labor to the total hard-core labor estimate.

6.4.3 Standard Estimating Example

Contractors are required to estimate work requirements using a method or system consistent with their accounting system. It has been shown through audits of contractors' accounting systems that the hard-core labor elements identified in Appendix 6-A are always charged as direct labor. It is also true that all contractors have other direct labor elements in their chart of accounts that must be considered in estimating work to be performed. Table 6-1 shows two sample charts of accounts for contractor direct labor. In these two samples, an asterisk denotes those direct labor elements that are comparable to the standard estimating hard-core labor elements. Although the determination of which labor categories are hard-core is a matter of judgment, any contractor labor category judged to be comparable to a labor category listed in Table 6-2, is designated as a hard-core labor element. The remaining

labor categories are included in the term "other direct labor." The factors to be applied to Government estimates are based on an actual audit of the contractor's accounting system. For example, based on past accounting data for all direct labor charges in a contractor's accounting system, other direct labor requirements are computed as a percentage of the direct labor charges covered by the hard-core direct labor elements. For example, if a Government estimate of 100 man-hours was comparable to 140 man-hours in the contractor's estimating system, the other direct labor factor would be computed to be 40 percent of the hard-core charges. The key to achieving equity in estimating for a particular estimating system is to determine the appropriate factors to be applied to the Government estimate. The fundamental principle in standard estimating is to estimate only those direct labor elements necessary to complete the task requirements, such as those listed in Appendix 6-A. Those labor elements that are not included in the hard-core estimate (i.e., overhead and other direct labor) are considered in the contractor's Forward Pricing Rate. For this reason, it would be improper to estimate the cost of supervision, scheduling, material handling, fire watches, or any other labor factor that is already included in the contractor's Forward Pricing Rate.

Table 6-1: Sample Contractor Charts of Accounts for Direct Labor

Contractor A		Contractor B	
*Machinist	Mechanical	* Inside Machinist	Estimating
*Shipfitter	Marine Engineering	* Outside Machinist	Purchasing
* Chipper and Burner	Program Planning	*Pipe Covering	Contract
* Crane Service	Program Management	*Pipefitting	Planning
*Welder	Financial Analysis	*Sheetmetal	Temporary Services
* Carpenter	Graphic Services	*Electrical	Material Support
*Painter	Technical Illustrators	* Carpentry	Laboratory Services
* Installation and Testing	Plant Protection and	*Paint	Industrial Engineer
*Pipefitting and Covering	Firewatches	*Laborer and Sandblaster	Progressing
*Sheetmetal Worker		*Welding	Clerical Support
*Quality Assurance		*Cleaning Services	Program Management
Material Handler		* Staging	Accident Prevention
Procurement Personnel		*Shipfitting	Production Support
Change Control		*Mold Loft	Material Receipt
Cost Estimator		*Nondestructive Testing	Scheduling
Secretary and File Clerk		* Inspection	Production Control
Naval Architecture		Technical Support	Material
Electrical Engineering		Drafting	Firewatches

***Hard-core labor elements**

Table 6-1: Standard Cost Estimating Form Labor Categories

Shipfitter	Pipefitter
Sheetmetal	Insulation/Lagger
Welder/Burner	Carpenter/Shipwright
Inside Machinist	Electronics/Ordnance
Outside Machinist	Painter/Sandblaster
Boilermaker	Rigger/Laborer
Electrician	Quality Assurance and NDT

6.5 Estimating Environment

6.5.1 Environment Defined

An estimating environment includes both the estimating system and the collection of facilities, tools, equipment, materials, labor, skills, procedures, environment, and other factors that may impact the cost of performance. Knowledge of the estimating environment is one of the fundamental prerequisites for effective estimating. In a Naval Shipyard, this requirement is met as a natural consequence of the way business is conducted in that facility. In the private sector, the estimator may be estimating for work that will be awarded competitively to a contractor whose identity is not known. Where contracts are sole-sourced, the estimator does have the opportunity to adjust the estimating to match the contractor's estimating environment.

6.5.2 Cost Accounting Standards

Most contractors will prepare cost estimates using an estimating system consistent with the contractor's accounting system. For large commercial contractors subject to Cost Accounting Standards (CAS), the contractor is required to use an estimating system consistent with the methods used for recording or accounting for costs and to submit a formal CAS Board Disclosure Statement showing the chart of accounts used for all direct and indirect costs and the methods used to account for those costs.

Small contractors and other contractors not subject to CAS are required to use an accounting system which meets generally acceptable accounting standards. The Defense Contract Audit Agency (DCAA) periodically audits contractor's records to determine whether or not their actual practices of estimating costs are consistent with the accounting system.

In the case of corporations and other businesses that operate two or more companies or operating geographically separated facilities, the estimating systems used in all locations will generally fall under the same accounting system. The charts of accounts used to identify direct and indirect cost centers and accounting practices are essentially the same at all locations; however, estimates from one of the contractors may not be valid in any of the other company contractors, since estimating is a function of more than the accounting system. The facilities, tools, and equipment available to the workforce may vary widely from one location to another. If one site uses a state-of-the-art end-prep machine to machine piping joints for welding and another uses a hand grinding tool, the estimates of labor hours required may vary by as much as 400 percent for the exact same scope of work. Likewise, the use of precise numerically controlled machine tools is more efficient than the use of manually operated machine tools. Generally speaking, the use of new, modern facilities improves performance when compared to performance in older, obsolete facilities. In a contractor's accounting system, however, the cost of new, modern facilities and state-of-the-art machinery and tooling will increase the indirect cost factors used to determine the billing rate applied to direct labor hours. No two contractors have the same collection of facilities, tools, or equipment available for performance. Therefore, there may be differences in estimates among contractors owned by the same company.

6.5.3 Other Factors Affecting the Contractor’s Estimating Environment

Contractor estimating is a function of the labor skills available, the experience of the work-force and the workload. Highly skilled employees can perform more efficiently than unskilled employees, but at a higher wage rate. A contractor workforce experienced in construction or modernization of a particular ship class benefits from the learning experience and can perform more efficiently on subsequent ships of the same class. Other considerations, such as the maritime market and level of work backlog, also play an important role in estimating for competitive procurements. For example, market conditions may dictate a contractor estimate that can be significantly at variance with the estimate of actual costs. If the market is saturated, i.e., all contractors are at capacity or are operating with a significant backlog of work, a contractor does not need additional work. The addition of more work under these conditions may be very disruptive to ongoing work and the disruptive effects would have to be considered in estimating the costs of more work. Under these conditions, contractors may also seek higher profits to compensate for the added disruption. Therefore, any precise estimate of total costs based on work scope and labor rates would be overridden by an increase to account for the market being at full capacity. Conversely, when there is not enough work to keep all contractors busy, the marketplace becomes more competitive. Under this condition, contractor management will normally undercut well-conceived estimates in order to remain competitive. A basic principle of estimating is that an estimate prepared for any one contractor will not be valid for any other contractor. The estimator must know the estimating environment that is used and estimates must be prepared to reflect the total environment of where the work is to be performed.

6.6 Cost Estimating Methods, Standardization, Standards, and Techniques

6.6.1 Variables

A number of estimating methods and techniques have evolved which are applicable only under particular conditions. Cost estimates must take into consideration the current estimating environment, market conditions, weather, and any other factors that influence the labor hours and material costs associated with a cost estimate. In preparing detailed cost estimates for work activities, the estimator shall always use the best information available. Where standards are available and applicable, they should be used. Where the estimator lacks experience or knowledge of the work being estimated, it is essential that other sources of information be examined. These sources include the following:

- Master Specification Catalog
- other estimators who have longer service or experience
- engineered labor standards prepared by naval or private contractors
- material catalogs from industry vendors
- contract files for similar work packages
- personal records made from past jobs or negotiations
- other Government agencies that have performed similar work
- personal observations made during job execution
- "Rules of Thumb"
- historical data

6.6.2 Standardization of Cost Estimates

Estimates should be standardized to the maximum extent possible. When estimating work items to be used in a competitive environment, previous estimates used for the same item should be modified only after a careful justification and then only to reflect changes in scope or changes in the estimating system. When a previously used work item is tailored to meet a new work item, the previously used estimate should also be tailored to meet the new requirements.

For ship repair and modernization work, estimators should utilize the proven Standard Work Templates (SWT) found in the Navy Maintenance Database (NMD)/Master Specification Catalog whenever possible. The estimator should use an applicable Class Standard Work Template if possible to prepare a work item addressing an authorized Ship Work Line Item Number (SWLIN). If an applicable Class Standard Work Template is unavailable, an applicable SWT should be tailored to the SWLIN item requirements. If an SWT is unavailable, a Local Work Template (LWT) should be tailored to the SWLIN requirements. As a last resort, the planner should develop an original work item, using current standard phraseology and applicable Category II NAVSEA Standard Items (SI).

6.6.2.1 Estimating Standards

Estimating standards are established by relating labor and material costs to specific characteristics of products or services delivered. The use of estimating standards is designed to save time in estimating and is particularly effective in estimating the costs of recurring work. Estimating standards are used to estimate the cost of a single material item required for the work in question or the cost of a single labor operation (e.g., welding rods per ton of steel, labor hours per linear foot of weld, gallons of paint per square feet, or surface area, etc.). More complex estimating standards may also be used to estimate the costs of groups of materials or components, or broader classes of labor operations. Estimating standards must be consistent with the estimating system used to develop estimates. Standards derived from industry-wide statistics are generally applicable industry-wide. Standards that include contractor-specific procedures are applicable only in that contractor's estimating system. The use of such standards is limited to the environment where the standard was developed. When estimating for changes where the contractor is known, any approved engineering standards applicable at the contractor's plant should be used by both the contractor and the Government in developing estimates for the work. Large numbers of Engineered Standards and other standards have been developed by both naval and private contractors. Many of these standards contain basic charts and tables that depict labor and material allowances for various work elements. These allowances are then modified by unique factors to reflect skill levels of workers, facilities, tools available, etc. Some of these standards can be adapted for use in any contractor's facility, provided appropriate factors are used to modify the standard allowances.

6.6.3 Detailed Estimating Techniques

Inherent in the concept of detailed estimating is a requirement that the estimator know how the work being estimated is to be accomplished. The "how" of work accomplishment often varies from one contractor to another and it may also vary with time, workload, and other considerations. The method of accomplishing the work must be consistent with the applicable estimating system. Detailed estimating requires that an estimate for hard-core labor and material for each activity of work required be developed and added to obtain the total hard-core item estimate. This type of estimate can be referred to as a detailed estimate because the work required is broken down into as many detailed activities as needed to facilitate the estimating. A detailed estimate is built from the bottom up, starting with the

lowest element of work required and building on it until the total job is estimated; the greater the level of detail, the greater the possible refinement.

6.6.4 Use of Historical Data

When historical data has established a standard allowance in labor and material for a work item, that standard shall normally be used when estimating that work item. The estimated cost will change, however, because labor rates and the price of materials change with time. The labor-hours and material quantities should remain constant, except for changes in work scope, the estimating system, or the estimating environment. The use of such historical standards should be validated with each use to ensure that new technology and work practices have been properly considered and that they are representative of the actual cost elements being estimated. When collecting and analyzing cost data, care should be used to distinguish between estimated costs and return or actual reported costs. When using return costs in historical files, an effort should be made to make adjustments to eliminate the excess costs that can be attributed to inefficiencies or other factors that are unique to the availability and the way the work package was executed. Use of return cost data in historical files without appropriate adjustment causes inefficiencies in performance to be extrapolated needlessly into future cost estimates. For this reason, historical files based on estimated costs are generally preferred over files based on return cost. Historical files can incorporate both estimated and return cost, but any return cost used should be properly adjusted.

6.6.4.1 Return Cost Statistics

It is easy to accept a running average of historical return costs as the best estimate of future costs for the same or similar requirements, although this practice may not always give the best results. This estimating technique may easily incorporate prior inefficiencies that have persisted unchecked. Worse yet, historical files based on return costs run an even greater risk of perpetuating erroneous estimates because of inaccuracies in reporting those costs and a lack of consistency in execution. The actual cost of performance of a job is a function of time as much as it is the hard-core cost elements of labor and material. Collecting actual cost data in a contractor cost accounting system is a requirement for all ship repair contractors and naval shipyards, but the data collected does not always reflect the actual work accomplished. This can happen when workers erroneously charge labor to the wrong job order number or to the wrong contract. In private sector availabilities executed under fixed price contracts, return costs reported on departure reports are usually based on a prorated share of the contract price plus the negotiated costs of applicable contract modifications. The basis for the pro-ration is the Government estimate of each work item. Thus, a return cost based on a substantial buy-in by a contractor could be significantly different from return costs from a sole source negotiation or at a time when the market is saturated. For these and other reasons, return costs should be used with care in developing standard estimates for future work.

6.6.4.2 Estimated Cost Statistics

The best estimate of future costs is the statistical mean of a number of independent estimates for the same requirements. Even in the case of standard estimates derived from independent estimates, the standard shall be reviewed periodically to challenge its validity in all cost elements estimated.

6.6.4.3 Adjustment to Historical Cost Data

When collecting completion cost data for historical files, costs for acceleration, delay, and disruption should be subtracted before entering the cost figures into the files. These costs are unique to a specific availability and should not be extrapolated for use in future availabilities.

6.6.5 General Estimating Methods

Shipyards responding to Navy procurements prepare estimates in different ways. Four of the most common methods of estimating are round table, comparison, detailed estimating, and parametric cost estimating/"rules of thumb"/cost estimate relationships.

6.6.5.1 Round Table Estimating

Representatives of shipyard departments such as engineering, production, and material purchasing, may develop a cost estimate based on experience, knowledge of the work required, and knowledge of market conditions. These estimates are usually completed with no detailed drawings or bills of material and with limited information concerning the work specifications. Standard costs are usually available for a major portion of the work. This type of estimating is speedy and inexpensive.

6.6.5.2 Comparison Estimating

With comparison estimating, department representatives and a cost estimator compare previously accomplished work elements to the work being considered. A new estimate is developed from the known costs of these similar work elements. This method is often used when requirements for the new work are very similar to those of a known work element and the new estimate needs few changes.

6.6.5.3 Detailed Estimating

In a thorough, detailed analysis of each element of the required work, detailed estimating produces requirements for labor, tooling, material, and additional capital items. The application of labor rates, material prices, and overhead to the calculated requirements translates the estimate into dollars. This type of estimating provides complete calculations, records, and quotations available for future use.

6.6.5.4 **Parametric Cost Estimating**

Parametric cost estimating is broadly defined as a technique employing one or more Cost Estimating Relationships (CERs) for the estimating of costs associated with work to be performed. In this sense, CERs represent the relationships between the cost of materials, labor, or services and the products delivered or work performed. Simple CERs can be derived arithmetically from historical data. For example, examine the cost of quality assurance in performing machine shop work. If historical records show that the costs of quality assurance over the last six months of operations amount to 10 percent of the total effort expended in the direct labor pool, then it would be safe to use a CER which projects the cost of quality assurance as 10 percent of the total effort required in operations over the next six months, unless some changes are anticipated which may impact the overall cost of performance. It is difficult to use sophisticated CERs in ship repair estimating because of the non-recurring nature of most ship repair work. CERs are more useful in estimating manufacturing and construction costs as opposed to repair, overhaul, or modernization costs. This does not mean, however, that simple CERs cannot be used effectively. They are used frequently, but they are generally referred to as "Rules of Thumb." Experienced estimators who have observed and recorded the results of prior estimates and adjusted them for changing conditions have developed many "Rules of Thumb" over the years. "Rules of Thumb" allow for estimates to be made on the basis of such concepts as cost per pound or hours per foot or unit. As with all CERs, "Rules of Thumb" are subject to change; therefore, should be used in an informed manner. When changes occur in technology, procedures, or other areas of cost affecting a CER, it should be modified to reflect the impact.

The first step in developing a CER is to determine its need and usefulness. Applications for CERs can be readily identified through logical reasoning and hypothesizing about the factors affecting the costs of performance. Once a need has been identified, the next step in developing the CER is determining what will be estimated and how it will be estimated. If labor hours are the desired items to be estimated, which categories of labor will be included? Is there a fixed ratio of one category to another? Which labor categories are to be excluded? The next step is to determine which factors will be used to estimate or drive the CER. All significant factors that cause costs to be incurred should be considered, including specific material quantities and prices, applicable procedures or processes, and environmental costs. Of these factors, isolate those that make the most significant cost contribution. The number of factors selected should be the smallest number possible to make the CER understandable and effective in producing the required estimates. Next, obtain historical data on both the cost variable being estimated and all the driving factors selected for use in the CER. The data collected must be consistent with the CER parameters isolated for analysis and must be extensive enough to represent a broad sampling of the costs expected under conditions when the CER would apply. After that, the data must be analyzed to determine the relationships that exist and the usefulness of those relationships in determining a CER. Then the relationship that best describes the data used is selected. The CER is quantified for use by providing a description of the CER, the independent variable or variables that are used, and the method to predict the cost of the dependent variable.

CERs may be presented in many forms, such as graphs, tables, or charts. They may be based on relationships from simple straight-line (one-to-one correspondence) to complex multivariable non-linear relationships. CERs, like most tools used in estimating, must be tempered by good judgment and with consideration of current conditions. New processes, technology, or other factors may make CERs obsolete. It is necessary, therefore, that estimators have some knowledge of the factors involved in CER development and employ CERs appropriately.

6.7 Estimating for Contract Modifications

6.7.1 Contractor Modifications

For contract modifications, including Master Agreement Job Order modifications, and for non-competitive procurements, estimates must include allowances for known conditions in the estimating environment. The scope of the modification estimate must include:

- consideration of additions and deletions required by the change
- impact on completed work by the change
- current status of materials made obsolete by the change

The cost estimate must consider the means of performing the work, the completion date, and other factors impacting performance such as delay, disruption, or acceleration. These cost elements must be identified, quantified, and included in any cost estimate. In considering the means of performance, due consideration must be given to the contractor's normal operating procedures. The estimate should be prepared based on the methods, procedures, facilities, equipment, and employees available to the contractor. In such a sole source environment, it is unfair to the contractor to negotiate changes on any basis other than those that impact on the costs of performance by the contractor. Estimates for changes must be prepared based on the way the contractor would perform the work, considering current workload as well as contractor inefficiencies and disruptions that may result from the change. The estimate must also consider the timing of the work to be done. Change work authorized early in an availability is generally less disruptive, and therefore less costly, than change work authorized later in the availability.

6.7.2 Acceleration

Acceleration should be considered in developing estimates for contract modifications that increase the scope of work. Simply defined, acceleration is a speeding up of the work in an attempt to complete performance earlier than otherwise anticipated. Acceleration consists of such items as increased manning, added shift work, overtime, rescheduling of workforce, new hires, additional subcontracting, etc. Acceleration, when required, must be considered in any estimate for changed work in a job order. Acceleration costs will nearly always be incurred when significant growth or new work is added to a work package that is to be completed in the original contract performance period. A contract is also "accelerated" if the

original performance period is decreased without an accompanying decrease in the scope of work. When acceleration is required, it must be identified in the contract modification (scope of work) and estimated as any other work element is estimated.

6.7.3 Disruption

Disruption costs should also be considered in developing cost estimates for contract modifications. It is the cost of the man-hours, materials, and other costs that are expended to offset inefficiencies experienced as a result of Government-caused or contractor-caused changes, or other departures from the original schedule that includes the effect of changed work on unchanged work. It is also the process by which the above inefficiencies in the performance of contract work are created. Disruption, when it can be identified, must be quantified and accounted for in the contract modification estimate. As with most estimating, quantifying disruption is an inexact process and there are few official guidelines available for assistance. The real requirements to be kept in mind are that it must be considered in determining the scope of work and, if present, the contractor must be compensated for disruption attributable to the change. Disruption attributable to the contractor's past performance, without regard to the change, must not be considered.

6.7.4 Delay

When a contract change affects the completion of the contract, a contractor may request additional compensation for this delay. Delay can also be an element of the contractor's cost estimate when other Government action or inaction causes a delay to the contractor's efforts. Delay is defined as that period of time a contractor is required to perform beyond the planned delivery or completion date, due to contractually remediable Government action or inaction (e.g., changes, stop work orders, suspension, or late or defective GFM). Delay must also be considered whenever any time-oriented event affects the length of, or causes, a suspension in scheduled contract work. As with any other cost element, it must be identified, quantified, and accounted for in the cost estimate. Delay attributable solely to the contractor's execution of the job order is not considered in any estimate for a contract modification.

Appendix 6-A: Standard Cost Estimate

STANDARD COST ESTIMATE *(Previous edition obsolete)* *(NAVSEAINST 4710.7A)*
NAVSEA 4710/7 (REV. 6-81)
S/N 0116-LF-047-1035

☐ ORIGINAL ☐ AMENDMENT ☐ REVISION PART I

SURVEYOR	ORIG. CODE					

TRADE

WORK ITEM PARAGRAPH/ CATEGORY STD ITEMS	SHIPFITTERS	SHEETMETAL	WELDERS BURNERS	INSIDE MACHINIST	OUTSIDE MACHINIST	BOILERMAKER	ELECTRICIAN	PIPEFITTER	INSULATOR LAGGER	CARPENTER SHIPWEIGHT	ELEX/ ORDANCE	PAINTERS SANDBLASTERS	RIGGER LABORER	QA/NDT	MAN HR/DAY	CFM MAT'L
CHECKPOINTS REPORTS																
SUB TOTALS																

NOTES

1. EST WORKING DAYS REQ'D
2. ARE ALLOWANCE CHANGES INVOLVED? ☐ YES ☐ NO
3. LIST ITEM, SWLIN OR JCN NOS. THAT INTERFACE WITH THIS ITEM
4. REMARKS

LABOR TOTAL	$	HR. DAY	$
CFM MAT'L			$
SUB CONTRACTOR			$
MFR. REP			$
TOTAL EST CONTRACTOR			$

EST GROWTH	MD/MHR	MD/MHR	MAT'L	TOTAL
		$	$	$

GFM (NSA)	$
SHIP/HULL NO	

5. JSN/SWLIN

TITLE			
DATE	COAR NO	ITEM NO	MOD NO

PAGE_____ OF_____

APPENDIX A (reverse side)

STANDARD COST ESTIMATE
NAVSEA 4710/7 (REV. 6-81)
S/N 0116-LF-047-1035

PART II

REPORTS REQUIRED

PARAGRAPH	TYPE OF REPORT (BRIEF)	REPORT DUE

CONTRACTOR FURNISHED MATERIAL ESTIMATE

PARA.	MATERIAL DESCRIPTION	QUANTITY	UNIT COST	TOTAL
			TOTAL $	

SUB CONTRACTOR ESTIMATE

PARA.	SERVICE	MD/MHR	S/MD/MHR	MATL	TOTAL
				TOTAL $	

TITLE	COAR NO.	ITEM NO	MOD NO

PAGE_____ OF _____

Appendix 6-B: Acronyms

ACAT	Acquisition Category
ACO	Administrative Contracting Officer
CAS	Cost Accounting Standards
CER	Cost Estimating Relationship
DCAA	Defense Contract Audit Agency
EAC	Estimate at Completion
GFM	Government Furnished Material
JFMM	Joint Fleet Maintenance Manual
LWT	Local Work Template
MSC	Master Specification Catalog
NAVCOMPT	Navy Comptroller
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction
NMD	Navy Maintenance Database
ODLF	Other Direct Labor Factor
OMB	Office of Management and Budget
OSD	Office of the Secretary of Defense
PEC	Predicted End Cost
ROM	Rough Order of Magnitude
ShipAlts	Ship Alterations
SI	Standard Item
SLEP	Service Life Extension Program

SWBS	Ship Work Breakdown Structure
SWLIN	Ship Work Line Item
SWT	Standard Work Template
TAR	Technical Advisory Report

Chapter 7 – Earned Value Management

Table of Contents

7.1 Introduction 7-4

7.2 Policy and Directives 7-4

7.3 Roles and Responsibilities 7-5
7.3.1 DoD Executive Agent 7-5
7.3.1.1 EVM Center 7-5
7.3.2 Component EVMS Focal Point 7-6
7.3.3 Procuring Activity 7-6
7.3.4 SUPSHIP Contract Management Office 7-8
7.3.5 Defense Contract Audit Agency (DCAA) 7-8

7.4 EVMS Guidelines Concept 7-8
7.4.1 EVMS Guidelines 7-9
7.4.1.1 Key Attributes of EVMS 7-9
7.4.1.2 ANSI/EIA Standard 748 Guidelines 7-10

7.5 EVM Overview 7-10
7.5.1 Basic EVM Description 7-11
7.5.2 Components and Processes of an Earned Value Management System 7-11
7.5.2.1 Statement of Work (SOW) 7-12
7.5.2.2 Work Breakdown Structure (WBS) 7-12
7.5.2.3 Contractor Program Organization 7-12
7.5.2.4 Program Schedule 7-13
7.5.2.5 Budget Allocation and Resource Planning 7-14
7.5.2.5.1 Establishing Control Accounts (CA) and Control Account Budgets 7-14
7.5.2.5.2 Performance Measurement Baseline (PMB) 7-15
7.5.2.5.3 Integrated Baseline Review (IBR) 7-16
7.5.2.5.3.1 IBR Policy and Guidance 7-16
7.5.2.6 Accounting Considerations 7-17
7.5.2.7 Earned Value Methodologies 7-17
7.5.2.7.1.1 Planning and Control of Level-of-Effort Activities 7-18
7.5.2.8 Performance Measurement and Analysis 7-19
7.5.2.8.1 Significant Variances 7-19
7.5.2.8.1.1 Schedule Variance (SV) 7-19
7.5.2.8.1.2 Cost Variance (CV) 7-20
7.5.2.9 Estimates at Completion (EAC) 7-21
7.5.2.10 Revisions and Data Maintenance 7-21
7.5.2.10.1.1 Customer-Directed Changes 7-22
7.5.2.10.1.2 Traceability to Previous Budgets 7-22
7.5.2.10.1.3 Control Internal Changes to the PMB 7-22
7.5.2.10.1.4 Over Target Baselines (OTBs) and Over Target Schedules (OTS) 7-23

7.6 Contract Requirements 7-23
7.6.1 Evaluation 7-23
7.6.2 Contract Award 7-23
7.6.3 Post-Contract Award 7-24
7.6.3.1 EVMS System Validation 7-24
7.6.3.2 Integrated Baseline Review (IBR) 7-25

7.7 EVM Surveillance and Maintenance 7-25
7.7.1 Surveillance Policy 7-25
7.7.2 Surveillance Responsibilities 7-26
7.7.2.1 Contractor 7-26
7.7.2.2 Program Management Office 7-26
7.7.2.3 Earned Value Management Support Staff (EVMSS) 7-26
7.7.2.4 SUPSHIP 7-27
7.7.2.5 Production Surveillance 7-27
7.7.2.6 DCAA Field Audit Office (FAO) 7-27
7.7.3 The Surveillance Process 7-28
7.7.4 Surveillance of Subcontractors and Other Prime Contractor Locations 7-28
7.7.5 Surveillance of Non-Validated Systems 7-29
7.7.6 EVM System Changes 7-29
7.7.7 Reviews for Cause (RFC) 7-29
7.7.8 Deficiencies in Validated EVM Systems 7-29

Appendix 7-A: Introduction to EVM 7-31

Appendix 7-B: EVMS Criteria 7-35

Appendix 7-C: EVMS Guidelines-Process Matrix 7-38

Appendix 7-D: Graphical Representation of EVMS Terms 7-39

Appendix 7-E: Sample Memorandum of Agreement 7-42

Appendix 7-F: Glossary 7-46

Appendix 7-G: Acronyms 7-50

References

(a) Federal Acquisition Regulations (FAR)

(b) OMB Circular A-11 Part 7

(c) Defense Federal Acquisition Regulations Supplement

(d) American National Standards Institute/Electronic Industries Alliance (ANSI/EIA) Standard 748, Earned Value Management Systems

(e) NAVSEAINST 7000.4G, Earned Value Management

(f) DoD Earned Value Management Implementation Guide (EVMIG)

(g) USD Memorandum of 23 April 2007, DCMA Earned Value Management (EVM) Roles and Responsibilities

(h) DCMA Concept of Operations for Earned Value Management Systems

(i) ASN(RDA) memo of 9 Apr 2007, Center of Excellence for Earned Value Management (CEVM)

(j) NAVSEANOTE 5400, “Cost Engineering and Technical Authority Policy” of 13 Apr 04

(k) National Defense Industrial Association (NDIA) Earned Value Management Intent Guide

(l) MIL-STD-881C, Work Breakdown Structures for Defense Material Items

(m) DoDINST 5000.02, Operation of the Defense Acquisition System

(n) DoD Directive 5105.36, Defense Contract Audit Agency

(o) DCMA EVMS Standard Surveillance Operating Manual (SSOM)

Chapter 7 – Earned Value Management

7.1 Introduction

This chapter provides information regarding the principles of Earned Value Management (EVM), DoD's requirements for EVM, the criteria used to approve a contractor's Earned Value Management System (EVMS), and the responsibilities of SUPSHIPs and other activities regarding Earned Value Management. For personnel unfamiliar with EVMS, Appendix 7-A provides a basic introduction to the topic. Also note that a Glossary is provided to define commonly used EVMS terminology.

Earned Value Management (EVM) has proven its value over many years. Effective implementation and application of Earned Value Management Systems by contractors ensures that they possess and use an adequate management system that integrates cost, schedule, and technical performance. This approach provides better overall planning and control discipline on Government contracts. A properly employed, compliant EVMS provides the Program Manager (PM) and SUPSHIP with valid cost, schedule, and technical progress information needed for effective decision-making, risk-management, and contract administration.

7.2 Policy and Directives

In accordance with reference (a), FAR 34.2, and as required by reference (b), OMB Circular A-11 Part 7, an Earned Value Management System is required for major acquisitions for development. DFARS Subpart 234.201, reference (c), imposes the following EVMS requirements for DoD contracts:

a. For cost or incentive contracts and subcontracts valued at $20 million or more, the EVMS shall comply with the guidelines in American National Standards Institute/Electronic Industries Alliance (ANSI/EIA) Standard 748, reference (d).

b. For cost or incentive contracts and subcontracts valued at $50 million or more, the contractor shall have an EVMS that has been determined by the cognizant Federal agency to be in compliance with the guidelines in ANSI/EIA-748.

c. For cost or incentive contracts subcontracts valued at less than $20 million:

   (1) The application of EVM is optional and is a risk-based decision.

   (2) A decision to apply earned value management shall be documented in the contract file.

   (3) A cost-benefit analysis is conducted following the procedures at DFARS PGI 234.201 (1)(iii).

d. For firm-fixed price contracts and subcontracts of any dollar value:

   (1) The application of EVM is discouraged.

(2) Procedures at DFARS PGI 234.201 (1) (iv) should be followed for obtaining a waiver before applying EVM.

Note: EVM is not required on contracts, subcontracts, intra-government work agreements, and other agreements less than 12 months in duration, including options.

Reference (e), NAVSEAINST 7000.4G – Earned Value Management, establishes NAVSEA policies, procedures, and responsibilities for the implementation of Earned Value Management in NAVSEA procurements. Reference (f), the DoD Earned Value Management Implementation Guide (EVMIG), provides uniform procedures which have been approved by DCMA and coordinated with the Services.

7.3 Roles and Responsibilities

The responsibility for EVM in DoD is shared by five organizations:

- DoD EVM Executive Agent (DCMA)
- Component EVMS Focal Point
- Procuring Activity
- SUPSHIP/Contract Management Office
- Contract Auditor

The following sections discuss the general responsibilities associated with each of these activities. Section 7.7 provides a more detailed list of those responsibilities associated with EVMS surveillance.

7.3.1 DoD Executive Agent

Reference (g), USD Memorandum of 23 April 2007, directs the formal designation of the Defense Contract Management Agency (DCMA) as the EVMS Executive Agent for the Department of Defense. The Executive Agent is responsible for ensuring the integrity and effectiveness in application of processes related to earned value management. Additionally, in accordance with DFARS 242.302 (S-71), DCMA is responsible for reviewing earned value management system (EVMS) plans and for verifying initial and continuing contractor compliance with DoD EVMS criteria (see Appendix 7-B).

7.3.1.1 EVM Center

DCMA has established the EVM Center to enhance the level of EVM support the Agency provides to its DoD and non-DoD customers. The EVM Center's role is to oversee and advise DCMA and DoD management on the status of EVM implementation and sustainment. Additionally, the Center facilitates maximum use of EVM by industry and the Government. Reference (h), the DCMA Concept of Operations for Earned Value Management Systems, lists twenty responsibilities of the EVM Center, including:

- Responsibility to execute and oversee the roles and responsibilities of DoD Executive Agent for EVMS in conformance with DoD EVMS policy, as delegated.

- Responsibility for the development, control, and implementation of the DoD Earned Value Management Implementation Guide (EVMIG).

- Responsibility for the interpretation of DoD EVMS Criteria, including issues on guideline applications and system review requirements. Those differences which cannot be resolved between interested parties within the government and the contractor are to be appealed to the EVM Center for resolution.

- Exercising authority to the Administrative Contracting Officer (ACO) to execute the Advance Agreement or issue the Letter of Acceptance that recognizes acceptance of the contractor EVMS with the final determination of adequacy coming from the EVM Center. The EVM Center may ultimately recommend withdrawal of the Government's previously recognized compliant EVMS to the ACO.

7.3.2 Component EVMS Focal Point

Each Service establishes a focal point to serve as a point of contact for coordination and exchange of information on earned value management. The EVMS focal point is responsible for effective policy implementation within their service, including ensuring consistency with DoD policy. In accordance with reference (i), ASN(RDA) memo of 9 Apr 2007, the Navy's EVM focal point is the Navy Center for Earned Value Management (CEVM) within the ASN(RDA) office.

7.3.3 Procuring Activity

The DoD Earned Value Management Implementation Guide (EVMIG), section 2.1.3.4, defines the Procuring Activity as being composed of the Program Management Office (PMO), the contracting organization, and the integrated component activities that support the PMO. For shipbuilding programs, this will most often consist of the PEO/PM and NAVSEAs 02 and 05. The Program Manager and the PMO have the responsibility to help ensure that all solicitations and contracts contain the correct EVMS and Integrated Master Schedule (IMS) requirements, tailored as appropriate for the specific nature of the program in accordance with DoD policy. The PM and PMO also have the responsibility to conduct the Integrated Baseline Review (IBR), perform integrated performance analysis, use this performance data to proactively manage the program, and accurately report performance to decision makers.

NAVSEAINST 7000.4G assigns the following responsibilities to NAVSEA codes and the Program Manager:

Deputy Commander for Ship Design Integration & Engineering (NAVSEA 05)

1. Through NAVSEA 05C, act as the Command focal point for EVM and all related matters. NAVSEA 05C is the warranted Technical Authority for Cost Engineering. The Single Process Owner (SPO) for Cost Engineering Policies and Processes is the Subject Matter Expert (SME) for the implementation and utilization of Earned Value Management.

2. Designate NAVSEA 05C Team Leaders to support respective PMs in the life cycle of EVM and assist in the conduct of Integrated Baseline Reviews (IBR) for ACAT I, ACAT II, and other selected programs. Additionally, NAVSEA 05C will assist the Contract Administration Office (CAO) in the determination of contractor systems compliance with ANSI/EIA-748.

3. Through NAVSEA 05C, assist the PM in developing an Estimate at Completion (EAC) required for the Defense Acquisition Executive Summary (DAES) report..

Deputy Commander for Contracts (NAVSEA 02)

1. For contracts requiring EVM, and with PM and NAVSEA 05C coordination, invoke EVMS in solicitations and contracts.

2. When appropriate, use past performance of contractors based on EV data as an evaluation criteria for all competitively negotiated acquisitions.

Program Manager

1. Include appropriate EVM requirements in acquisition plans and Statements of Work for RFPs/contracts that require EVM, tailoring such requirements as necessary for the management of the program.

2. Negotiate a Memorandum of Agreement (MOA) with SUPSHIP to define management system surveillance duties and analysis on shipbuilding contracts containing EVM requirements.

3. Include NAVSEA 05C and USD (AT&L) Central Repository (as appropriate) on the DD Form 1423, Contract Data Requirements List (CDRL), for distribution of Contract Performance Reports (CPRs), Integrated Master Schedule (IMS), and Contract Funds Status Reports (C/FSRs).

4. Make full use of CPRs, IMS, C/FSRs and other reports in managing and evaluating contractor performance.

5. Include NAVSEA 05C on Contract Award Reviews/Contract Implementation Reviews

6. Include the designated NAVSEA 05C Team Leader in the planning and performance of an IBR.

7. Conduct an IBR within 6 months of contract award (see paragraph 7.5.2.5.3).

8. Encourage EVM and analysis training for all Program staff and participation at program reviews.

9. Maintain adequate documentation regarding implementation of EVM (e.g. results of IBRs and MOAs). The program office shall be the normal repository for such information.

7.3.4 SUPSHIP Contract Management Office

The Contract Management Office (CMO), also known as the Contract Administration Office (CAO), is the office that is assigned to administer contractual activities at a specific contractor facility. Although EVMIG section 2.1.3.5 states that the cognizant CMO is a part of DCMA, SUPSHIPs perform the role of the CMO for contracts awarded major shipbuilders under their cognizance (see Federal Directory of CAS Components). In accordance with NAVSEAINST 7000.4G and the EVMIG, SUPSHIPs are responsible for:

a. Negotiating and executing an Advance Agreement or Letter of Acceptance between the Government and the contractor specifying that the contractor will maintain and use the contractor's accepted EVMS as an integral process on the current as well as future contracts.

b. When necessary, and following the procedures of EVMIG section 2.3.5, withdrawing contractor EVMS validation.

c. Establishing a Joint Surveillance Team comprised of the contractor, SUPSHIP, Program Office, and DCAA personnel, and developing a formal surveillance plan for each program having an EVM requirement in accordance with the MOA requirements of the Program Manager. Active surveillance will commence upon contract award and shall be ongoing during negotiations with the PM regarding MOA development and/or update.

d. Monitoring compliance with the contractor's accepted EVMS. SUPSHIP will report any contractor failure to comply with major items of that EVMS to NAVSEA 05C, the cognizant PM, and DCMA.

e. Providing members and administrative support to on-site review teams.

f. Maintaining adequate documentation of certification, monitoring, and surveillance activities of the contractor. The SUPSHIP shall be the normal repository for such information.

7.3.5 Defense Contract Audit Agency (DCAA)

The Defense Contract Audit Agency (DCAA) is responsible for conducting audit reviews of the contractor's accounting system policies, procedures, and activities. The contract auditor assigned by DCAA participates in surveillance and earned value management reviews.

7.4 EVMS Guidelines Concept

EVMS guidelines were established on the premise that the Government cannot impose a single EVMS for all contractors due to variations in organizations, products, and working relationships. The guidelines establish a framework within which an adequate integrated cost, schedule, and technical management system fits. The EVMS guidelines are not prescriptive, but simply describe the desired outcomes of integrated performance management.

The EVMS guidelines have been published as the ANSI/EIA Standard 748, Earned Value Management Systems. DoD adopted ANSI/EIA-748 in August 1998 for application to major defense

acquisition programs. Industry periodically reviews the standard, and Revision B was published in 2007 without change to the basic guidelines. If the ANSI/EIA-748 standard is changed or updated, DoD will review and determine if the document still meets the Government's requirements.

7.4.1 EVMS Guidelines

EVMS guidelines are intended to be objective and applicable to large, risky, cost-based Government programs. The purpose of the guidelines is to provide the contractor and the Government with accurate data to monitor execution of a program and to:

- Preclude the imposition of specific cost and schedule management control systems by providing uniform evaluation guidelines to ensure contractor cost and schedule management control systems are adequate.
- Provide an adequate basis for responsible decision-making by both contractor management and DoD component personnel by requiring that contractors' internal management control systems produce data that:
    - Indicate work progress
    - Properly relate cost, schedule, and technical accomplishment
    - Are valid, timely, and able to be audited
    - Provide DoD component managers with information at a practical level of summarization
- Encourage DoD contractors to adopt management control systems and procedures that are most effective in meeting requirements and controlling contract performance.
- Provide a baseline requirement against which industry standards, both national and international, may be evaluated for authorization by the Under Secretary of Defense (Acquisition, Technology, and Logistics) (USD (AT&L)) as substitutes for DoD EVMS guidelines.

7.4.1.1 Key Attributes of EVMS

EVM systems that comply with the ANSI/EIA Standard 748 facilitate:

- thorough planning of all program work scope to completion
- integration of work scope, schedule, and cost objectives into a single baseline plan
- baseline establishment at the beginning of the contract
- baseline control throughout the contract
- objective measurement of work accomplishment at levels where the work is being performed

- summarized reporting for management decision-making
- early identification of problems and the corrective actions needed to mitigate the resulting risk
- development of estimates of final technical, schedule, and contract costs
- visibility into subcontractor performance

7.4.1.2 ANSI/EIA Standard 748 Guidelines

Standard 748 is composed of 32 EVMS guidelines grouped in the following five major categories:

- organization
- planning, scheduling, and budgeting
- accounting considerations
- analysis and management reports
- revisions and data maintenance

Appendix 7-B is an excerpt of the EVMS System Surveillance Section of the DCMA Guidebook that provides a complete list of the 32 EVMS criteria organized within these five categories. Appendix I of the EVMIG, provides a detailed discussion and evaluation guide for these criteria. It is organized by management process, however, not by the five categories used in the ANSI/EIA-748 standard. Appendix 7-C of this chapter provides a Guidelines-Process Matrix that shows how the 32 guidelines are organized within the five categories of the standard and how they relate to the nine management processes used for EVMS evaluation. Reference (k), the National Defense Industrial Association (NDIA) Earned Value Management Intent Guide, provides more in-depth information regarding the meaning and intent of these 32 guidelines and is intended for industry use in the implementation of an Earned Value Management System.

7.5 EVM Overview

Earned Value Management (EVM) is a program management tool that integrates technical, cost, and schedule parameters to measure contract performance against a baseline plan. EVM provides SUPSHIP and the Program Manager (PM) with contractor cost, schedule, and performance information which:

- relates time-phased budgets to specific contract tasks
- objectively measures work progress
- properly relates cost, schedule, and technical accomplishments

- allows for informed decision-making and corrective action
- is valid, timely, and able to be audited
- allows for statistical estimation of future costs
- supplies managers with status information at the appropriate level
- is derived from the same management systems used by the contractor to manage the contract

7.5.1 Basic EVM Description

The basic requirements for effective implementation of an EVMS include:

1. Defining and organizing all work necessary to complete the project. This typically includes determining the scope of work required by the contract and organizing it into a Work Breakdown Structure (WBS).
2. Planning the work elements of the WBS to determine the time and estimated costs required to perform the work.
3. Developing a project network that integrates the scope of work, schedule, and cost objectives into a time-phased baseline plan that spans the duration of the project.
4. Defining “earning rules” for measuring the accomplishment of the WBS work elements. A variety of different earning rules may be applied within the same EVMS based on the nature of the work.
5. Periodically determining the project’s earned value by applying the earning rules to each work element and summing the earned value of all work.
6. Comparing the earned value against the baseline plan to determine cost and schedule variances.
7. Analyzing significant variances to determine their cause, to forecast impact, and to determine appropriate corrective action.

Refer to Appendix 7-C for a depiction of an EVMS chart and the associated EVMS terminology.

7.5.2 Components and Processes of an Earned Value Management System

Implementation of EVMS for large-scale projects, such as the construction of Navy surface ships and submarines, requires considerable contractor effort and rigorous application of EVMS guidelines and processes if it is to provide accurate information concerning contract performance. The following sections describe the components and processes commonly found in an EVMS supporting major DoD programs.

7.5.2.1 Statement of Work (SOW)

The SOW for the program should reflect all work to be performed. The SOW communicates the work scope requirements for a program and should define the requirements to the fullest extent practicable. It is a basic element of control used in the processes of work assignment and establishment of program schedules and budgets.

7.5.2.2 Work Breakdown Structure (WBS)

The WBS is a direct representation of the work scope defined in the program SOW. It is an essential element of an Earned Value Management System used to provide the structure for identifying and categorizing the work to be performed. It is a hierarchal breakdown of the material, services, and operations that must be obtained or completed, by both government and commercial activities, in order to achieve the objectives of an acquisition program. It provides the framework for program and technical planning, cost estimating, resource allocation, performance measurement, technical assessment, status reporting, and EVMS data collection and reporting.

A preliminary top-level WBS is developed by the Program Manager and systems engineering staff early in the planning phase of acquisition programs utilizing reference (l), MIL-STD-881C – Work Breakdown Structures for Defense Material Items. The Program WBS is included as part of the solicitation and used by the successful contractor to develop a more detailed Contract Work Breakdown Structure (CWBS), when required by Data Item MGMT-81334D, which includes all product elements (hardware, software, data, or services) for which the contractor is responsible. The same WBS must be used on both the Contract Performance Report and the Cost and Software Data Reports.

7.5.2.3 Contractor Program Organization

It is important for the organization to be defined at the onset of the program so that work assignments are identified and responsibilities are clear. A company will organize as required for the optimal management of its business. This includes decisions such as the use of work teams or functional organizations and staffing by direct (project-oriented) or matrix management. This process includes identification and coordination of subcontracted work as well as internal efforts. A program organization is dynamic and may change as the program evolves.

The Organizational Breakdown Structure (OBS) reflects the way the program is organized. To assign work responsibility to appropriate organizational elements, any WBS and organizational structure must be interrelated with each other; that is, organizational responsibility must be established for identified units of work. The assignment of lower level work segments to responsible lower level managers provides a key control point for management purposes and cost collection. This is called the control account (CA). A CA thus represents a defined work scope (with the associated charge number or numbers) given to a single organizational unit (and single manager or team leader) for work performance. EVMS guidelines (See section 7.4.1 and Appendix 7-B) require that a control account be assigned to a single Control Account Manager (CAM) or team leader with responsibility for managing that account.

When effort is to be subcontracted out, the applicable subcontractor is identified and related to, or integrated with, the appropriate WBS element(s) and/or organization charged with acquiring the subcontracted item.

7.5.2.4 Program Schedule

The program schedule is the time-oriented plan for accomplishment of work scope requirements on a program. Schedule planning and control, along with work scope definition, are necessary prerequisites for basic program management and effective cost control. The scheduling process begins during original program definition and overall schedule plans are typically established during the pre-planning for a program.

For DoD acquisition programs, program scheduling takes the form of the Integrated Master Plan (IMP) and the Integrated Master Schedule (IMS). The IMP and IMS provide a systematic approach to program planning, scheduling, and execution. The primary purpose of the IMP and its supporting detailed schedule, the IMS, is their use by the Government and contractor team as day-to-day tools for planning, executing, and tracking program technical, schedule, and cost status.

The IMP is an event-based plan consisting of a hierarchy of program events, with each event being supported by specific accomplishments, and each accomplishment associated with specific criteria to be satisfied for its completion. The IMP is normally part of the contract and thus contractually binding. The IMP is a narrative explaining the overall management of the program.

The IMS is an integrated, networked schedule containing all the detailed discrete work packages and lower level tasks or activities necessary to support the events, accomplishments, and criteria of the IMP (if applicable). The events, accomplishments, and criteria are duplicated in the IMS. Detailed tasks are added to depict the steps required to satisfy the criterion. The IMS is directly traceable to the IMP and includes all the elements associated with production, modification, and delivery of the end product. It must also be traceable to the Contract Work Breakdown Structure (CWBS), the contract Statement of Work (SOW), and the EVMS. Durations are entered for each discrete work package and lower level tasks, along with predecessor and successor relationships, as well as any constraints that control the start or finish of each work package or lower level task. The result is a fully networked schedule that supports critical path analysis.

During contract execution, the IMP and IMS provide a framework for insight into the contractor's performance. When properly integrated with EVMS, the IMP and IMS should enable the Government and contractor to:

- identify and assess actual progress versus planned progress
- monitor the program critical path and help develop workarounds to problem areas
- assess program maturity
- assess the status of risk management activities based on the inclusion of the program risk mitigation activities in the IMP and IMS

- assess the progress on selected Key Performance Parameters (KPPs) and Technical Performance Measures (TPMs)
- provide an objective, quantitative basis for the contractor's performance assessment rating and award fee
- help develop and support "what-if" scenarios and to identify and assess candidate problem workarounds
- provide better insight into potential follow-on efforts that were not part of the original contract award, for example, the contractor should be able to more clearly define the activities, new interfaces, and other clarifying information necessary for a potential program increment or contract option

Refer to the Integrated Master Plan and Integrated Master Schedule Preparation Guide for more detailed information on the IMP and IMS.

7.5.2.5 Budget Allocation and Resource Planning

Before work can proceed, scope and budget must be authorized to the responsible organizations. The contractor's PM is given an internal authorization to proceed with contract work. Budgets and work scope then are divided among the program's organizations via formal work authorizations that communicate work assignments. All authorized work must be associated with a corresponding budget. This provides a documented trail of work authorization from the program office that clearly assigns program work requirements to the responsible organizations.

The process of work authorization, the approvals necessary, and the form will vary based on individual company policies and procedures. Work authorizations do not need to duplicate the SOW nor WBS dictionary, and can refer to that document for work scope definition. Work authorizations should describe the work to be performed in as much detail as needed for the CAM to understand the work to be accomplished. The company will decide on the flow of the work authorizations and the approvals that are needed. The authorizations may be communicated electronically or on paper. Work authorizations must be issued, before work is due to begin, for improved control and advance planning.

7.5.2.5.1 Establishing Control Accounts (CA) and Control Account Budgets

All CAs must contain a budget, schedule, and scope of work and should realistically represent the manner in which work is assigned and budgeted to organizational units. A resource plan must be developed for every Control Account and Summary Level Planning Package (SLPP - see section below). The resource plan is the time-phased budget that is developed in accordance with assigned work scope and schedule requirements.

Each CA is allocated a budget that reflects the resources necessary to complete the assigned effort. Budgets established at the CA level must be planned by element of cost and may be stated either in dollars, hours, or other measurable units. When units other than dollars are used, the company must determine the appropriate point of responsibility in their control system for rate application for

financial analysis and reporting. In all cases, it is necessary to use rates that will provide a valid Performance Measurement Baseline (PMB). When there are significant changes in the anticipated labor, overhead, or other rates, internal re-planning of remaining portions of the PMB is usually necessary.

The rates used in determining budgets will also be used for computation of earned value data. In general, the budget process should provide for:

- direct budgets allocated to organizations performing the planned work
- indirect budgets allocated to specific organizations having responsibility and authority for controlling indirect costs
- identification of any Management Reserve (MR) or Undistributed Budget (UB)

7.5.2.5.2 Performance Measurement Baseline (PMB)

The assignment of budgets to scheduled segments of work produces a plan against which actual performance can be measured. This is called the Performance Measurement Baseline. The PMB is a time-phased summation of:

- all Control Accounts (CA)
- Summary Level Planning Packages (SLPP)
- applicable indirect budgets
- any Undistributed Budget (UB)

Control Accounts may include both Work Packages (WP) and Planning Packages (PP). A Work Package is simply a task, activity, or grouping of work that has been planned and budgeted. A Planning Package is a budget holding account within a Control Account for future work for which it is not yet practicable to plan the work at the work package level.

Indirect costs (or overhead) consist of those costs for common or joint objectives that are not readily subject to treatment as direct costs. Indirect budgets are the budgeted indirect (or overhead) costs associated with Control Accounts, SLPP, and Undistributed budgets.

Summary Level Planning Packages are employed when it is impractical to plan authorized work in Control Accounts. A SLPP may be used to establish a high level holding account for a budget that is identified to some work scope, but which is not yet allocated to a Control Account. Budget and work should be identified to higher WBS or organizational levels for subdivision into Control Accounts at the earliest opportunity, and certainly before the work actually begins. Because a SLPP is associated with specific work scope, it should not be confused with a Management Reserve (MR) or Undistributed Budget (UB).

It should be noted that PMB includes only the budgeted amount associated with specific scope. For this reason, Management Reserve (MR) is not included in the PMB because it is an amount withheld

from the total budget for management control purposes and is not designated for the accomplishment of specific work. Undistributed Budget (UB) is included because it is a temporary holding account for specific work scope that has not yet been planned in detail at the control account or SLPP level.

An effective PMB possesses the following attributes:

- accurately represents all authorized work, and only authorized work, on the contract
- includes a realistic network schedule baseline
- includes a realistic time phased distribution of budget/resources to the baseline schedule

In addition to these attributes, an effective PMB requires a consistent commitment from both the contractor and the Government to enforce proper baseline change procedures and periodic review of the remaining baseline to ensure that it remains executable.

7.5.2.5.3 Integrated Baseline Review (IBR)

The Integrated Baseline Review (IBR) is a joint assessment led by the PM and supported by SUPSHIP and the contractor to verify the realism and accuracy of the PMB. This involves verifying the technical content of the baseline and assessing the realism and accuracy of the related resources. The IBR is a tool that should be used as necessary throughout the life of the contract. Key benefits of the IBR are:

- joint understanding of program risks
- management insight into the planning assumptions and the resource constraints of the baseline
- comparison of expectations so that any differences can be addressed early in the planning phase
- correction of baseline planning errors and omissions
- in-depth understanding of developing variances and improved early warning of significant variances
- targeting of resources to address challenges and mitigate risks
- mutual commitment by the joint team to manage to the baseline
- more executable programs

7.5.2.5.3.1 IBR Policy and Guidance

Reference (m), DoDINST 5000.02, Operation of the Defense Acquisition System, implements 48 CFR Part 242 and 252 which require the PM and technical staff to conduct an IBR on any contract

requiring EVM compliance. Occasions for the Government to require integrated baseline reviews include:

- as early as practicable, and no later than 180 days after contract award
- after the exercise of significant contract options
- with the incorporation of major modifications or as otherwise agreed upon

IBRs are also performed at the discretion of the PM or when major events occur within the life of a program. These events may be a significant shift in the content and/or time-phasing of the PMB. An IBR should also be conducted whenever an Over Target Baseline (OTB) or Over Target Schedule (OTS) is implemented.

Refer to the EVMIG for more detailed information regarding the IBR. Additional guidance is also contained in a guide prepared by a joint OSD/NDIA team, The Program Manager's Guide to the Integrated Baseline Review Process. While this is not a detailed how-to guide, it does describe the key attributes of the IBR and establishes a framework for improving consistency of the IBR across DoD.

7.5.2.6 Accounting Considerations

An EVMS itself is not an accounting system. It does, however, rely on actual cost data from the contractor's accounting system for accurate reporting of program costs and measurement of contract performance. The establishment of work orders and other aspects of the accounting process must be coordinated with the establishment of Control Accounts and other aspects of the budgeting process so that direct comparison and analysis can be performed.

The accounting system must be capable of accounting for all resource expenditures on an "applied" basis (i.e., on an "as-used" or "as-consumed" basis). This requirement is fairly straightforward in the categories of direct labor (where time cards or other time measurement devices are used) or other direct charges (where services are typically charged on a per-unit basis, such as per man-hour of direct effort).

Acceptable costing techniques should be used to fully account for all material purchased for the program. To ensure effective performance measurement of material takes place, the contractor's accounting system should accurately accumulate material costs to the appropriate Control Account. Where actual costs are not available in a timely manner, estimated costs should be applied and adjustments made when actual costs are available.

7.5.2.7 Earned Value Methodologies

There are a number of basic earned value methodologies applicable to discrete work package efforts (efforts with definable scope and objectives that can be scheduled and on which progress can be objectively measured). Three basic methodologies are:

- valued milestones

- standard hours
- management assessments (only when these objective methods are not feasible)

There are many variations and combinations of these techniques. Also, quantitative formulae may be used to compute earned value for cases such as work in progress or inventory materials. These formulae, such as the PERT method for material, can cause data distortions (e.g., Negative BCWS) if not properly maintained. While this method may be appropriate for small value consumables, it is not an acceptable method for performance measurement of high value material that can be treated as discrete material items.

The valued milestone method involves the assignment of budget to specific work objectives (schedule milestones). That value is earned as the milestones are completed. It is important for the milestones to be natural and meaningful points of accomplishment.

The use of standard hours methodology (“equivalent units” is a similar process) is common in manufacturing accounts. Budget is time-phased in relation to the standard hour plan and should reflect the actual physical accomplishment of tasks within the work package. Earned value is accrued in proportion to the standard hour status as earned standards are sold/credited in the shops.

Management assessment may be used to determine the percentage of work completed for a task or group of tasks only when an objective method to determine the percentage is not feasible. Earned value is then calculated by applying that percentage to the total budget for the work. Management assessment may include the use of metrics for work measurement. Durations for these work packages should be kept short to minimize any distortions caused by their subjective nature.

The objective earned value methods (valued milestones or standard hours) are always preferred, but each method has its own merits and a company should use the most objective methods that best suit its management needs.

For short duration Work Packages (i.e., those of two months duration or less), other earned value methods are acceptable, such as percent complete, 0/100, and 50/50. In the 0/100 technique, 100% of the budget may be reported as earned when the Work Package is closed. In the 50/50 technique, 50% of the budget is earned when the Work Package is started and the remaining 50% is earned when the WP is closed.

7.5.2.7.1.1 Planning and Control of Level-of-Effort Activities

Level-of-Effort (LOE) is work scope of a general or supportive nature for which performance cannot be measured or is impractical to measure. Resource requirements are represented by a time-phased budget scheduled in accordance with the time the support will likely be needed. For discrete WPs, accomplishment can be measured based on the completed pieces of work, but LOE is "measured"' through the passage of time. Since the earned value for LOE is equal to the budget for the same time period, the performance data provided is simply a comparison of budgeted to actual cost.

LOE activity should be separately identified from discrete work packaged effort to avoid distorting that which is measurable. Some general guidelines for LOE are:

- The amount of LOE activity will vary among performing organizations, but it should be held to the lowest practical level.
- LOE budgets should be separately substantiated and planned as direct labor, material/subcontract, or other direct costs. LOE activity should be budgeted on a time-phased basis for control and reporting purposes.
- When LOE and discrete effort are mixed within the same CA, the CAM must ensure visibility into the performance of the discrete effort.
- LOE may be re-planned if the work will not occur when planned or will slip past planned (not contract) milestones. This avoids artificial cost variances.

7.5.2.8 Performance Measurement and Analysis

Earned value is a direct measurement of the quantity of work accomplished. Earned value is a value-added metric that is computed on the basis of the resources consumed compared to the accomplished work scope.

Earned value analysis evaluates program performance and facilitates problem identification for more effective management action. It also permits segregating schedule and cost problems for early and improved visibility of program performance. Management actions will typically involve lower level analysis of problems and implementation of corrective actions to restore or improve contract performance. Continued EV analysis permits analysis of these corrective actions to assess their effectiveness.

See Appendix 7-D for a graphical representation of EVMS terms and performance measurements.

7.5.2.8.1 Significant Variances

Reasonable selection criteria should be established to ensure proper analysis of significant problems and not cause an excessive burden on the CAM and mid-level managers. The selection criteria should ensure all significant variances are analyzed and any external reporting requirements are supported. Although the frequency and nature of external reports is dictated by the contract, the frequency and style of reports for *internal* management is a company option. Unless otherwise specified in contracts, standardized reports and formats may be used for customer reports on subcontracts or Government contracts per mutual agreement, provided that CPR formats 1-4 are submitted in the ANSI X12 Transaction Set 839 or equivalent.

7.5.2.8.1.1 Schedule Variance (SV)

Comparing the earned budget (the value of work accomplished) during a given period of time to the value of work scheduled (planned budget) during the same period of time provides a valuable indication of schedule status in terms of dollars' worth of work accomplished. It represents the

quantity, i.e., the value, of the work that is ahead of or behind schedule. In essence, it is an "accomplishment" variance.

Although the SV metric provides early insight into detail schedule conditions and overall schedule performance, it should not be the sole source for determining the contractor's performance to schedule. Schedule variance does not clearly indicate whether scheduled milestones are being met since some work may have been performed out of sequence or ahead of schedule. Neither does SV indicate whether a completed activity is a critical event or if delays in an activity's completion will affect the completion date of the contract. A formal time-phased scheduling system, therefore, must be used to provide the means of determining the status of specific activities, milestones, and critical events. Additionally, other techniques, such as critical path analysis, may be better indicators of long-range time projections. However, a trend analysis of the changes in the SV metric can provide a valid and useful indication of current performance and near term projections, as well as early identification of incipient cost problems.

7.5.2.8.1.2 Cost Variance (CV)

Cost performance is determined by comparing the actual cost of the work accomplished to the earned value for the same work scope, i.e., the budgeted cost of the work accomplished. The resultant metric is the Cost Variance (CV). The CV is a true measure of cost performance as it compares the actual cost incurred to the value of work accomplished. It thus eliminates the distortions inherent in a simple comparison of actual costs to a total budget.

Analysis of this difference reveals the factors contributing to the variances. These may include:

- poor initial estimate for the task
- technical difficulties that require additional resources
- cost of labor or materials different than planned
- differences between planned and actual rates
- incorrect or inadequate selection of the earned value methodology
- personnel efficiency different than planned (rate analysis and analysis of prime costs, i.e., labor hours, may be segregated to isolate rate changes and efficiency factors)

Variance At Completions (VAC) represents the amount of expected overrun (negative VAC) or under-run for the contract. It can be determined by taking the difference between the Budget At Completion (BAC) and the Estimate At Completion (EAC) [VAC = BAC – EAC]. Because it can be calculated at the Control Account level, in addition to the total contract level, it can serve as a useful metric for focusing management attention on the sources of cost performance problems. While this performance analysis involves examination of what has occurred, the focus should be on the control of current actions and assessment of future plans. The assessment of future plans should project when the remedial actions will be completed and its impact on schedule and EAC.

7.5.2.9 Estimates at Completion (EAC)

An Estimate at Completion (EAC) is determined by estimating the Cost to Complete (CTC) the contract and adding it to total costs incurred to date. A comprehensive EAC should be periodically developed at the CA level using all available information to arrive at the best possible estimate. This is done by:

- evaluating the efficiency achieved by performing organizations for completed work and comparing it to remaining budgets
- establishing a schedule forecast that reflects the expected timeframe for completing the remaining work
- considering all remaining risk areas on the program versus cost avoidance possibilities
- ensuring the most current direct and indirect rate structure is used to value the projected resources
- applying this analysis to future efforts to derive the most accurate estimate

The EAC should be the most likely estimate of the total costs for all authorized program efforts and should be time-phased in accordance with the expected completion dates on program schedules. The basis for the EAC and the reasons for changes from the last estimate should be identified.

Comparisons of this estimate to budgets for the associated effort must be made frequently enough for management to ensure program performance and resource availability will not be adversely impacted. Monthly maintenance of the CA level EAC by the CAM ensures that the EAC continuously reflects a valid projection of program costs.

The schedule for establishment and maintenance of EAC data depends on program management needs and overall company or corporate financial review requirements. A company should conduct periodic (at least annual) comprehensive EAC reassessments. Alternatively, a company should establish an on-going process of EAC review and maintenance. In either case, significant EAC changes should be incorporated whenever they are identified.

7.5.2.10 Revisions and Data Maintenance

Changes in major programs are inevitable. This discussion addresses the controlled process whereby programs incorporate formal changes, conduct internal re-planning, and adjust past, present, and future information to accommodate changes. The keys are timeliness and control. The budget will change as contract changes are authorized and incorporated or as internal re-planning actions are taken. Rate changes and economic price adjustments may also be made as appropriate. Changes to budgets in the current or past accounting periods should only be made for the correction of errors or the effects of contract negotiation.

Revisions to program plans must be carefully controlled. The PMB should reflect the current program management plan for accomplishment of program objectives. It must be up-to-date and

should include all authorized changes. It is equally important that unauthorized changes are not introduced. Incorporating changes should not precipitate the elimination of existing cost and schedule variances (sometimes referred to as “single point adjustments”). If the maintenance of baseline plans is compromised, the information on management reports will be degraded.

7.5.2.10.1.1 Customer-Directed Changes

Customer-directed changes to the program can impact virtually all aspects of the internal planning and control system, such as organization structures, work authorizations, budgets, schedules, and EACs. The incorporation of authorized changes should be made in a timely manner and strictly controlled. This will ensure the PMB can be accurately maintained.

7.5.2.10.1.2 Traceability to Previous Budgets

The original budget established for the program should constitute a traceable basis against which program growth can be measured. The starting point or base on which these original budgets are built is the program target cost. This value increases or decreases only as a result of authorized changes. For definitized changes, the program target cost changes by the negotiated amount. For authorized work that has not been negotiated, the program target cost increases by the amount of cost estimated for that effort. Where a specified Not-to-Exceed (NTE) amount has been established, the program target cost will only increase by this amount unless both parties mutually agree to a different amount for performance measurement purposes. After negotiations, the program target cost is adjusted to reflect the negotiation results. Adequate records of all changes should be maintained to provide the basis for reconciliation back to the original budgets assigned during the baselining process.

7.5.2.10.1.3 Control Internal Changes to the PMB

Future plans may significantly vary from the original baseline, and the PM may choose to realign scope, schedule, or budget. Some examples of when it may be appropriate to do internal re-planning (i.e., within the program target cost or approved TAB) include:

- changes resulting from a Preliminary Design Review (PDR) or a Critical Design Review (CDR) that modify future requirements
- a major shift in the resource profile to accomplish the remaining effort
- funding restrictions or modifications that affect future resource availability
- rate changes that are significant enough to warrant re-planning

Internal re-planning is intended for in-scope changes to future budgets. The objective of internal re-planning is to reflect a revised program plan. Changes to near-term effort (scheduled to start in the next accounting period) must be minimized.

Changes in the funding projections for a program may affect both the schedule and the cost for a program. The movement of budget to meet a new funding profile requires a reassessment of the

schedule for the associated work. There may also be cost impact due to rate differences in the affected time periods.

7.5.2.10.1.4 Over Target Baselines (OTBs) and Over Target Schedules (OTS)

During contract execution, the contractor may conclude that the budget and schedule for performing the remaining work is decidedly insufficient and no longer represents a realistic plan. At this point the contractor should prepare and submit a request to implement an OTB and/or OTS.

An Over Target Baseline (OTB) is a PMB that has been formally reprogrammed to include additional performance management budget in excess of the contract's negotiated cost. An OTB increases the performance budget without modifying the work scope or other constraints of the contract.

An Over Target Schedule (OTS) condition is created when the contractor re-plans the schedule to a schedule that exceeds the contract milestones or delivery dates. This new schedule also becomes the basis for the performance budgets. While it is possible to have an OTS without a corresponding increase in cost, normally an OTS is accompanied by increased costs and therefore by an OTB.

Implementing an OTB or OTS is a major management decision for the contractor and requires Government approval at the start of the process. Consequently, the PM should fully understand the concepts and processes. The PM should consider the factors discussed below when considering whether an OTB or OTS is appropriate for the contract and when evaluating the contractor's request.

See section 2.5.2.5 of the EVMIG for additional information.

7.6 Contract Requirements

7.6.1 Evaluation

Evaluation of the contractor proposed EVMS and the nine EVM management processes is normally undertaken as part of the proposal evaluation process. This evaluation is an assessment to determine if the contractor's system meets the ANSI/EIA-748 guidelines.

7.6.2 Contract Award

The contract award phase is primarily a PCO/Program Office function that would include SUPSHIPs upon request. When EVM is required in a contract, the following sections of the contract will include EVM related requirements:

- Section C - Includes EVM in Statement of Work
- Section I - Includes EVMS FAR and DFAR Clauses
- Section J - Includes EVMS Data Items
    - Contract Performance Report (CPR)

  - Integrated Master Schedule (IMS)
  - Contract Work Breakdown Structure

- Section L - Includes EVMS descriptions in proposal
- Section M - Includes EVMS as an evaluation factor

The Statement of Work (SOW) tasks, FAR/DFAR contract clauses, and the CDRL items require the contractor to:

- use and maintain an EVMS that meets the ANSI/EIA-748 guidelines
- notify the Government of any EVMS changes
- provide the Government with access to EVMS pertinent records and data
- require EVMS on selected subcontractors
- support a Government – Contractor Integrated Baseline Review (IBR)

7.6.3 Post-Contract Award

Although the EVMIG describes a variety of post-contract award activities, including functions associated with contract administration, delivery, and contract close-out. The five primary EVM elements associated with post-contract award are:

- Contract Award Review/Contract Implementation Review
- EVM System Validation
- EVM System Surveillance
- Integrated Baseline Review
- Program Management Reviews

7.6.3.1 EVMS System Validation

DoD policy requires EVMS validation for all DoD EVM contracts of $50 million or greater. For shipbuilding contracts, this responsibility would typically fall on DCMA. EVM validation determines that the EVMS:

- meets the intent of the ANSI/EIA-748 guidelines
- accomplishes the nine EVM management processes
- is being used appropriately on the contract

7.6.3.2 Integrated Baseline Review (IBR)

The IBR is a joint risk assessment of the EVM Performance Measurement Baseline (PMB) conducted by the Government PM, SUPSHIP, and the contractor. DoD acquisition policy and NAVSEAINST 7000.4G require PMs to conduct IBRs on EVM contracts:

- within six months of contract award
- upon exercise of significant contract options
- upon incorporation of major modifications
- as otherwise agreed

7.7 EVM Surveillance and Maintenance

EVM surveillance is the process of assessing a contractor's EVMS to ensure that it continues to comply with ANSI/EIA -748 guidelines, and that the contractor is following its own EVMS processes and procedures. Surveillance ensures that the contractor's EVMS:

- provides timely and reliable cost, schedule, and technical performance measurement information summarized directly from the contractor's internal management system
- complies with the guidelines
- provides timely indications of actual or potential problems
- maintains baseline integrity
- provides information that depicts actual conditions and trends
- provides comprehensive variance analysis at the appropriate levels including proposed corrective action in regard to cost, schedule, technical, and other problem areas
- discusses actions taken to mitigate risk and manage cost and schedule performance

7.7.1 Surveillance Policy

In accordance with the EVMIG, surveillance of management control systems is required for all contracts that require EVMS compliance with ANSI/EIA-748. EVMS surveillance begins at contract award and extends throughout the life of the contract. Government surveillance, including access to all pertinent contractor records and data, is implemented in the contract through the inclusion of DFARS clause 252.242-7004.

7.7.2 Surveillance Responsibilities

A number of organizations are involved in the surveillance of the contractor's EVMS. These include the contractor, the PMO, the Earned Value Management Support Staff (EVMSS), SUPSHIP (CMO), and the DCAA Field Audit Office (DCAA FAO).

7.7.2.1 Contractor

The contractor is ultimately responsible for maintaining an EVMS that is compliant with ANSI/EIA-748.

7.7.2.2 Program Management Office

The responsibilities of the PMO include:

- Negotiating and updating the MOA with SUPSHIP (see paragraph below)
- Keeping SUPSHIP informed of actions and matters which could affect EVMS surveillance
- Assisting in the resolution of problems cited in surveillance reports by providing required support to SUPSHIP
- Reviewing, evaluating, and analyzing usefulness of the surveillance reports, and where necessary, stating required changes to the reporting practices
- Obtaining assistance from the cognizant SUPSHIP or DCMA EVM Center in resolving surveillance issues

The MOA is a negotiated agreement between the PMO and the SUPSHIP that identifies the key individuals, specific responsibilities, priorities, reporting requirements, and working relationships. The MOA may also be negotiated by SUPSHIPs and DCMA CMOs where multiple prime contractors or major subcontractors are involved. The MOA describes the activities necessary to achieve and maintain effective program surveillance. It should be executed at the beginning of the contract and reviewed on an annual basis. A sample MOA is included as Appendix 7-E and can be found as Appendix A of the EVMIG.

7.7.2.3 Earned Value Management Support Staff (EVMSS)

The Earned Value Management Support Staff (EVMSS) is the Procuring Activity's subject matter experts responsible for providing technical support to PMOs. For shipbuilding contracts procured by NAVSEA, the EVMSS is NAVSEA 05C, the Cost Engineering and Industrial Analysis Division, with assistance from SUPSHIP personnel for programs under their cognizance. The EVMSS can assist the PMO with input to the MOA, provide guidance in analyzing CPRs, support IBRs, and support risk assessments. The EVMSS may also participate as members of an Integrated Surveillance Team.

7.7.2.4 SUPSHIP

As the CMO, SUPSHIP is responsible for overall EVMS in accordance with DFARS 242.302(S-71) and is responsible for system surveillance activities to ensure the contractor's system continues to comply with the ANSI EVMS guidelines. In accordance with the EVMIG, EVM personnel within SUPSHIP having EVMS surveillance responsibilities are as follows (titles may vary among SUPSHIPs):

- The EVMS Specialist is assigned the overall responsibility for surveillance of the contractor's EVMS. This includes evaluation of contractor proposed changes to the system. The EVMS Specialist should be cognizant of the procuring activity EVMSS who can provide assistance in resolving surveillance issues.

- The Program Support Team (PST) members are assigned responsibility for accomplishing surveillance in their respective functional or organizational area.

- The Program Integrator (PI)/Support Program Integrator (SPI) serves as the SUPSHIP focal point on major program contracts (or designated major/critical subcontracts).

- The Administrative Contracting Officer (ACO) is designated as the agent of the Government responsible for assuring that the contractor complies with the contract. The ACO is a member of the PST.

See section 7.3.4 for additional SUPSHIP responsibilities concerning EVMS surveillance.

7.7.2.5 Production Surveillance

Production Surveillance is a function of contract administration used to determine/validate contractor physical progress, assess quality of workmanship, assess compliance with technical requirements, and identify any factors that may delay performance (see FAR 42.11). While the contractor is responsible for timely contract performance, the Government must maintain adequate surveillance of contractor performance to protect its interests. Production surveillance involves Government review and analysis of contractor performance plans, schedules, controls, and industrial processes, as well as the contractor's actual performance under them. The ACO is responsible for determining the extent of surveillance required. See section 5.5 of this manual (Project Management – Work Progressing) for more information.

7.7.2.6 DCAA Field Audit Office (FAO)

Reference (n), DoD Directive 5105.36, assigns DCAA to "perform all necessary contract audits for the Department of Defense and provide accounting and financial advisory service regarding contracts and subcontracts…as appropriate." These include providing advice to SUPSHIP on the acceptability of incurred costs and estimates of costs to be incurred. Additional responsibilities include verifying the adequacy of the contractor's accounting, financial management, and estimating systems and procedures. DCAA Field Audit Offices, in partnership with the SUPSHIP and the DoD Executive Agent for EVMS, has the following responsibilities:

- reviewing the contractor's accounting system for compliance with the EVMS and contract provisions including verification that there is consistency with related budgeting and work authorization systems

- determining the accuracy and reliability of the financial data contained in the contract cost reports prepared from the contractor's systems

- reporting any significant unresolved deficiencies in the contractor's EVMS

- coordinating the appropriate EVMS surveillance requirements into routine DCAA audit programs and procedures with the SUPSHIP and DCMA EVM Center

- advising the EVMS Specialist regarding DCAA surveys of contractor systems and other audits which may bear on EVMS acceptability or surveillance

7.7.3 The Surveillance Process

Surveillance should be based on recurring evaluation of internal management control practices and samples of internally and externally reported data to ensure the validity of the contractor's performance data provided to the Government. The surveillance process should focus on major system activities and problem identification to ensure the greatest return for resources expended. A risk based approach, as described in the DCMA Guidebook (EVMS System-Level Surveillance), should identify specific areas for increased focus and surveillance. See also the DCMA EVMS Standard Surveillance Operating Manual (SSOM), reference (o).

If deficiencies are discovered in the contractor's compliance with ANSI/EIA-748, the SUPSHIP should document the problem and then notify the contractor of the problem along with any corrective action required. The SUPSHIP follows up to ensure the deficiency is resolved in a timely manner. EVMS problems that cannot be resolved with the contractor are reported to the ACO for resolution.

SUPSHIP reviews the Contract Performance Report (CPR) and related EVM data on a recurring basis or as agreed in the MOA with the PM. SUPSHIP provides the PM with an independent and complete assessment of the accuracy and timeliness of CPR information as agreed to in the MOA. These reports specifically highlight issues that could affect contract milestones or areas of considerable cost, schedule, or technical risk.

7.7.4 Surveillance of Subcontractors and Other Prime Contractor Locations

Subcontracts and other locations or divisions of the prime contractor that fall under EVM requirements may require surveillance by another SUPSHIP or a DCMA CMO. The SUPSHIP having cognizance of the prime contract would then delegate surveillance responsibility to the responsible SUPSHIP or CMO. When a subcontractor is required to comply with the EVM criteria, the prime contractor is responsible for surveillance of the subcontractor; however, the government has the right to also conduct subcontractor surveillance through the EVM DFAR flow-down.

SUPSHIP EVMS surveillance is normally limited to evaluating the effectiveness of the prime contractor's management of the subcontractor. However, there may be occasions when the PM or a

prime contractor requests, through the ACO, that the Government perform limited or complete EVMS surveillance. Such support administration is not to be construed as a discharge of the prime contractor's contractual obligations and responsibilities in subcontract management. Such assistance should generally be provided only when:

- The prime contractor is unable to accomplish the required surveillance because it would jeopardize the subcontractor's competitive position or proprietary data is involved.
- A business relationship exists between the prime contractor and subcontractor not conducive to independence and objectivity, as in the case of a parent-subsidiary or when prime and subcontractor roles of the companies are frequently reversed.
- The subcontractor is sole source and the subcontract costs represent a substantial portion of the prime contract's costs.

7.7.5 Surveillance of Non-Validated Systems

Surveillance of non-validated EVM systems is conducted in the same manner as for validated systems, per the processes and responsibilities noted in the previous sections. The primary reason for performing surveillance on non-validated systems is to ensure that the contractor implements a system that is compliant with ANSI/EIA-748 and that the resulting data is valid. Surveillance of non-validated systems should not be expanded nor construed to imply Government validation. See EVMIG, section 2.3.8, for a discussion on handling deficiencies found during surveillance of non-validated systems.

7.7.6 EVM System Changes

The contractor is contractually obligated to maintain the company's EVMS in conformance with ANSI/EIA-748. Continuing innovations and improvement of the contractor's system are encouraged; however, such changes to the EVMS need to be approved by the DoD Executive Agent for EVMS, as described in the EVMIG, section 2.3.4, unless waived by the contracting officer in accordance with FAR 52.234-4 or other contract clause provisions.

7.7.7 Reviews for Cause (RFC)

After formal acceptance of a contractor's EVMS, no further system review is conducted unless there is a serious need determined by the Government. The decision to conduct a review may occur when conditions warrant, e.g., solving a major system application problem identified by the SUPSHIP or PM on a specific contract. The key element in the decision process is whether the output of the processes meets the intent of the guidelines and is usable for decision-making. SUPSHIP should consult DCMA EVM Center prior to initiating a Review for Cause. EVMIG section 2.3.5 provides additional information concerning RFCs.

7.7.8 Deficiencies in Validated EVM Systems

Deficiencies may be uncovered either in the EVM system processes or in the consistency and discipline of the validated processes. These deficiencies may be discovered during routine

surveillance or during analysis of performance data. SUPSHIP should notify and consult with the PCO and EVMSS (SEA05C) if major deficiencies are identified. EVMIG section 2.3.6 provides additional information regarding the process for correcting deficiencies and restoring compliance. This process is designed to provide the contractor an opportunity to correct deficiencies prior to formal withdrawal of the company's EVMS validation. Additionally, NAVSEA ltr Ser 04X13B/120 of 26 July 2001 requires a SUPSHIP to submit a "Bellringer" report in the case of "disapproval of, or intent to disapprove contractor administrative systems."

Appendix 7-A: Introduction to EVM

In its simplest form, development of an EVMS consists of four steps:

1. Define the work. This is typically done in a hierarchal arrangement called a work breakdown structure (WBS). The importance of this step is to ensure that the WBS is a comprehensive list of all the elements of work to be performed, that work be uniquely identified in only one work element, and that the level of detail in the WBS is appropriate for the size and complexity of the project.

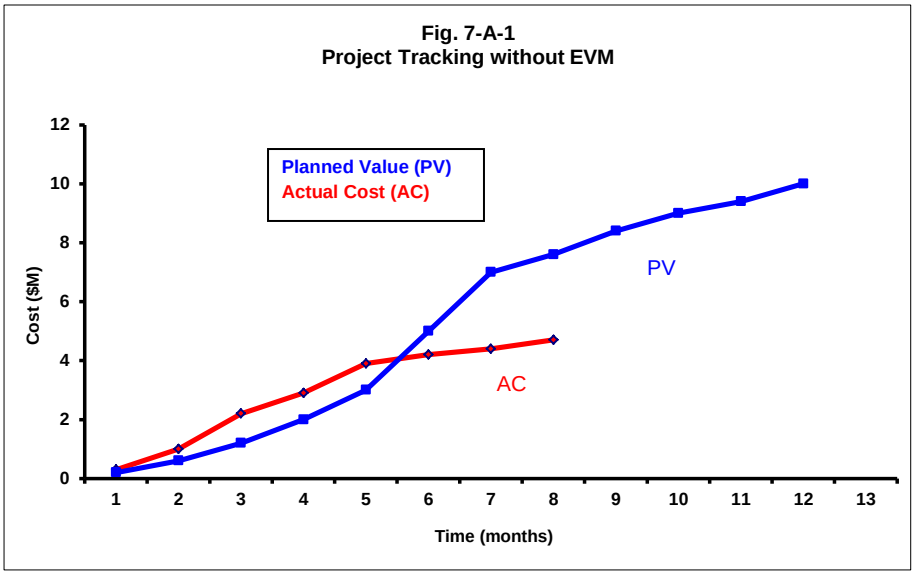
2. Assign a Planned Value (PV) to an appropriate level of work as defined in the WBS. For large projects, the summation of all work element PV's will total the project PV which is usually the total project budget. A time-phased plot of PV forms the performance baseline for measuring performance.

3. Define "earning rules" for the work elements. A variety of different earning rules may be applied within the same EVMS, or a single earning rule may be employed, such as the 50/50 rule, to all work elements. Using the 50/50 rule, 50% credit is earned when an element of work is started and the remaining 50% is earned upon completion.

4. At periodic intervals, sum the "earned value" of all work performed and measure this earned value against the baseline. From this earned value metric, cost and schedule variances can be determined and analyzed against the performance baseline. These basic variance measurements permit the identification of significant drivers, forecast future cost and schedule performance, and develop actions to correct project deficiencies.

<u>A Graphical Example of EVM</u>

To gain a basic understanding of EVM, it is useful to first consider a graphical example of project management performed without the benefit of EVM. Figure 7-A-1 depicts a project that has been planned in detail, including a time-phased spending plan shown as the blue Planned Value (PV) line. It also shows the cumulative costs incurred as the red Actual Cost (AC) line. With the data available, it appears the project was over budget through month 5, and under budget for months 6 through 8. In terms of budget alone that may be true, but what is missing from this chart is an indication of how much work has been performed. If the project was completed at month 8, then clearly the project is both under budget and ahead of schedule, but if the project was only 20% complete at month 8, then the project is almost certainly behind schedule and over budget. In order to know for sure, there needs to be a measure of how much work has been performed. This is the information provided by EVM.



Consider now the same project, this time including a measure of technical performance, i.e., the amount of work accomplished. Various methods may be used for calculating Earned Value depending on the nature and complexity of a project, but for the purposes of this example, we will assume it is calculated as the percentage of work elements completed times total budget for the entire project (Budget at Completion - BAC). Figure 7-2 shows the Earned Value curve along with the Planned Value curve from figure 7-1. This chart shows the schedule performance aspect of EVM. At 8 months into the project, the Earned Value of approximately $6M equates to the planned progress at approximately 6.5 months. This equates to a Schedule Variance based on time of roughly 6 weeks behind schedule. Similarly, Schedule Variance can also be expressed in a dollar value by comparing the difference between the Planned Value and the Earned Value at 8 months into the project. This shows that we planned to have almost $2M more work accomplished than has actually been completed.

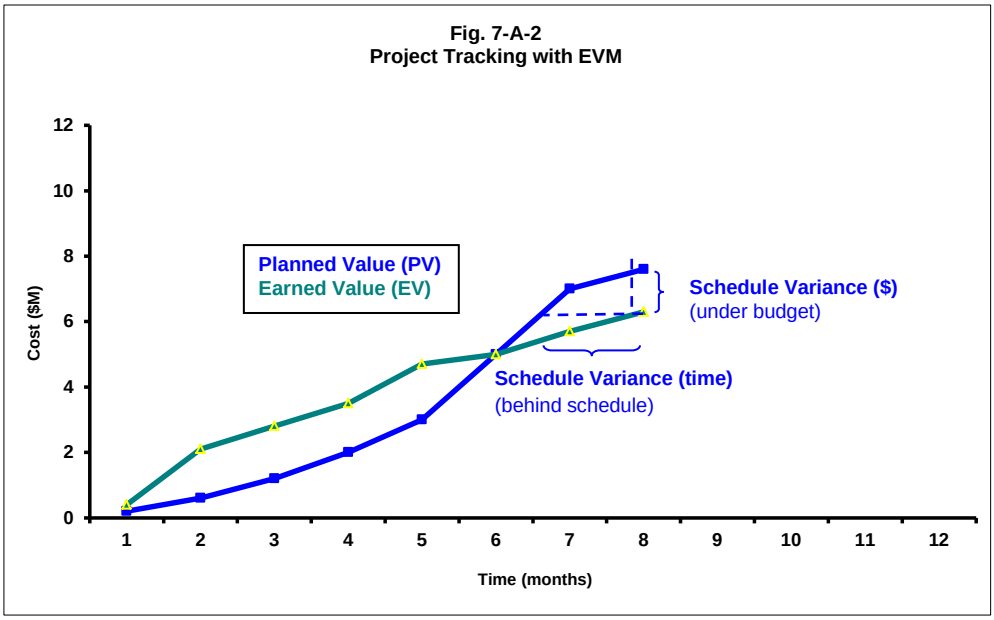
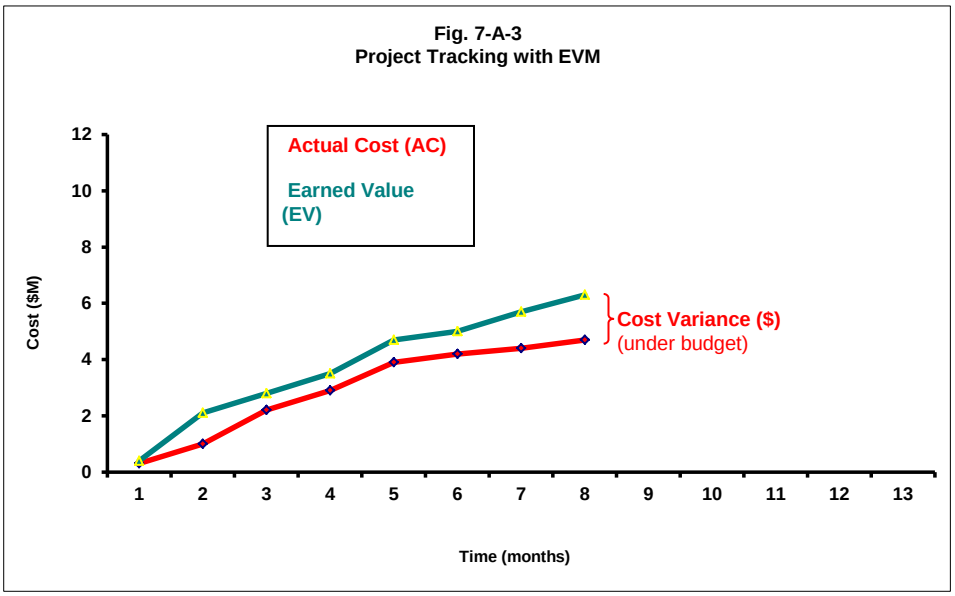
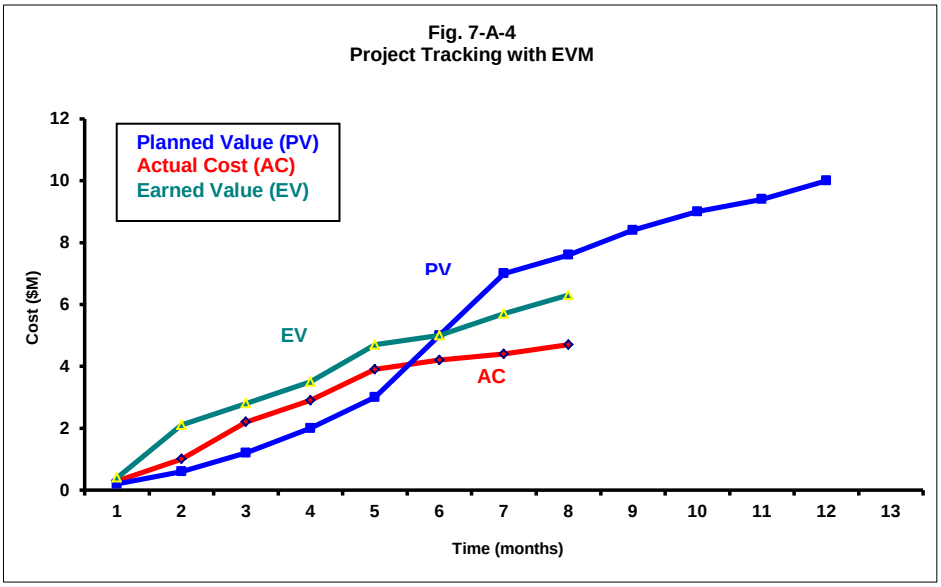


Figure 7-A-3 shows the same Earned Value curve along with the Actual Cost data from Figure 7-A-1. From this graph we can see that the Cost Variance can be determined by subtracting the Actual Cost from the Earned Value at 8 months into the project, or roughly $2M under budget for the amount of work completed.



Finally, figure 7-A-4 shows a typical EVM graph showing all 3 curves. The best way to interpret these 3-line charts is to focus on the Earned Value curve and compare it to the Planned Value curve to determine schedule performance and to the Actual Cost curve for Cost Performance. It can be seen from this illustration that a true understanding of cost and schedule performance is largely dependent on the ability to objectively measure technical performance (work progress).



Appendix 7-B provides a more detailed graphical example including a description of the terms and abbreviations commonly used in EVMS.

Appendix 7-B: EVMS Criteria

(From DCMA Guidebook, EVMS System Surveillance)

Organization

1. Define the authorized work element for the program. A work breakdown structure (WBS), tailored for effective internal management control, is commonly used in this process.

2. Identify the program organizational structure including the major subcontractors responsible for accomplishing the authorized work, and define the organizational elements in which work will be planned and controlled.

3. Provide for the integration of the company's planning, scheduling, budgeting, work authorization, and cost accumulation processes with each other, and as appropriate, the program work breakdown structure and the program organizational structure.

4. Identify the company organization or function responsible for controlling overhead (indirect costs).

5. Provide for integration of the program work breakdown structure and the program organizational structure in a manner that permits cost and schedule performance measurement by elements of either or both structures as needed.

Planning and Budgeting

6. Schedule the authorized work in a manner which describes the sequence of work and identifies significant task interdependencies required to meet the requirements of the program.

7. Identify physical products, milestones, technical performance goals, or other indicators that will be used to measure progress.

8. Establish and maintain a time-phased budget baseline, at the control account level, against which program performance can be measured. Budget for far-term efforts may be held in higher level accounts until an appropriate time for allocation at the control account level. Initial budgets established for performance measurement will be based on either internal management goals or the external customer negotiated target cost, including estimates for authorized but undefinitized work. On government contracts, if an over-target baseline is used for performance measurement reporting purposes prior notification must be provided to the customer.

9. Establish budgets for authorized work with identification of significant cost elements (labor, material, etc.) as needed for internal management and for control of subcontractors.

10. To the extent it is practicable to identify the authorized work in discrete packages, establish budgets for this work in terms of dollars, hours, or other measurable units. Where the entire control account is not subdivided into work packages, identify the long-term effort in larger planning packages for budget and scheduling purposes.

11. Provide that the sum of all work package budgets plus planning package budgets within a control account equals the control account budget.

12. Identify and control level of effort activity by time-phased budgets established for this purpose. Only that effort which is immeasurable or for which measurement is impracticable may be classified as level of effort.

13. Establish overhead budgets for each significant organizational component of the company for expenses which will become indirect costs. Reflect in the program budgets, at the appropriate level, the amounts in overhead pools that are planned to be allocated to the program as indirect costs.

14. Identify management reserves and undistributed budget.

15. Provide that the program target cost goal is reconciled with the sum of all internal program budgets and management reserves.

Accounting Considerations

16. Record direct costs in a manner consistent with the budgets in a formal system controlled by the general books of account.

17. When a work breakdown structure is used, summarize direct costs from control accounts into the work breakdown structure without allocation of a single control account to two or more work breakdown structure elements.

18. Summarize direct costs from the control accounts into the contractor's organizational elements without allocation of a single control account to two or more organizational elements.

19. Record all indirect costs which will be allocated to the contract.

20. Identify unit costs, equivalent unit costs, or lot costs when needed.

21. For EVMS, the material accounting system will provide for:

- accurate cost accumulation and assignment of costs to control accounts in a manner consistent with the budgets using recognized, acceptable, costing techniques
- cost performance measurement at the point in time most suitable for the category of material involved, but no earlier than the time of progress payments or actual receipt of material
- full accountability of all material purchased for the program including residual inventory

Analysis and Management Reports

22. At least on a monthly basis, generate the following information at the control account and other levels as necessary for management control using actual cost data from, or reconcilable with, the accounting system:

a) Comparison of the amount of planned budget and the amount of budget earned for work accomplished. This comparison provides the schedule variance.

b) Comparison of the amount of the budget earned and the actual (applied where appropriate) direct costs for the same work. This comparison provides the cost variance.

23. Identify, at least monthly, the significant differences between both planned and actual schedule performance and planned and actual cost performance, and provide the reasons for the variances in the detail needed by the program management.

24. Identify budgeted and applied (or actual) indirect costs at the level and frequency needed by management for effective control, along with the reasons for any significant variances.

25. Summarize the data elements and associated variances through the program organization and/or work breakdown structure to support management needs and any customer reporting specified in the contract.

26. Implement managerial actions taken as the result of earned value information.

27. Develop revised estimates of cost at completion based on performance to date, commitment values for material, and estimates of future conditions. Compare this information with the performance measurement baseline to identify variances at completion important to company management and any applicable customer reporting requirements including statements of funding requirements.

Revisions and Data Maintenance

28. Incorporate authorized changes in a timely manner, recording the effects of such changes in budgets and schedules. In the directed effort prior to negotiation of a change, base such revisions on the amount estimated and budgeted to the program organizations.

29. Reconcile current budgets to prior budgets in terms of changes to the authorized work and internal replanning in the detail needed by management for effective control.

30. Control retroactive changes to records pertaining to work performed that would change previously reported amounts for actual costs, earned value, or budgets. Adjustments should be made only for correction of errors, routine accounting adjustments, effects of customer or management directed changes, or to improve the baseline integrity and accuracy of performance measurement data.

31. Prevent revisions to the program budget except for authorized changes.

32. Document changes to the performance measurement baseline.

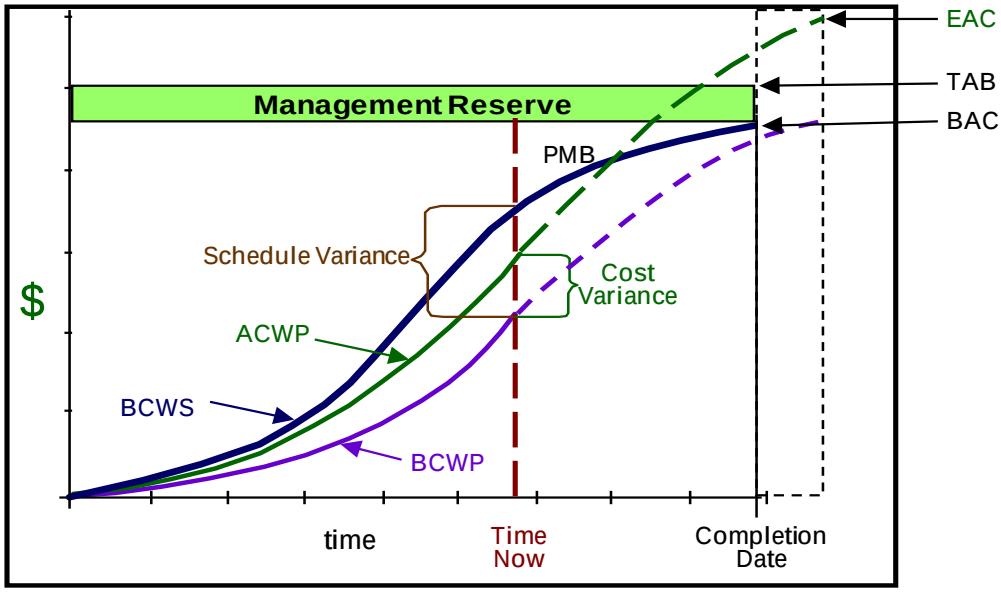
Appendix 7-C: EVMS Guidelines-Process Matrix

ANSI/EIA-748 Guidelines		PROCESS GROUPING								
		ORGANIZING	SCHEDULING	WORK/BUDGET AUTHORIZATION	ACCOUNTING	INDIRECT MANAGEMENT	MANAGERIAL ANALYSIS	CHANGE INCORPORATION	MATERIAL MANAGEMENT	SUBCONTRACT MANAGEMENT
ORGANIZATION										
2-1a	Define authorized work	X								
2-1b	Identify Program Organization Structure	X								
2-1c	Company integration of EVMS subsystems with WBS and OBS	X								
2-1d	Identify organization/function for overhead (DCAA)					X				
2-1e	Integrate WBS & OBS, create control accounts	X								
PLANNING, SCHEDULING & BUDGETING										
2-2a	Sequential scheduling of work		X							
2-2b	Identify interim measures of progress, i.e. milestones, products, etc.		X							
2-2c	Establish time-phased budget (DCAA)			X		X				
2-2d	Identify significant cost elements within authorized budgets			X						
2-2e	Identify discrete work packages			X						
2-2f	All work package budgets & planning packages sum to control acct			X						
2-2g	Identify and control LOE budgets			X						
2-2h	Establish overhead budgets by organization element (DCAA)					X				
2-2i	Identify management reserve and undistributed budget			X						
2-2j	Reconcile program target cost goal with sum of all internal budgets			X						
ACCOUNTING CONSIDERATIONS										
2-3a	Record direct costs from accounting system (DCAA)				X					
2-3b	Summarize direct costs into WBS without allocation (DCAA)				X					
2-3c	Summarize direct costs into OBS without allocation (DCAA)				X					
2-3d	Record indirect costs (DCAA)					X				
2-3e	Identify unit costs, equivalent units costs or lot costs (DCAA)				X					
2-3f	Accurate material cost accumulation by control accounts; EV measurement at right time; full accountability of material (DCAA)								X	
ANALYSIS AND MANAGEMENT REPORTS										
2-4a	Control account monthly summary, identification of CV and SV (DCAA)				X		X			
2-4b	Explain significant variances						X			
2-4c	Identify and explain indirect cost variances (DCAA)					X				
2-4d	Summarize data elements and variances thru WBS/OBS for mgmt						X			
2-4e	Implement management actions as result of EVM analysis						X			
2-4f	Revise EAC based on performance data; calculate VAC (DCAA)					X	X			
REVISIONS AND DATA MAINTENANCE										
2-5a	Incorporate authorized changes in timely manner							X		
2-5b	Reconcile budgets with prior budgets							X		
2-5c	Control retroactive changes (DCAA)				X			X		
2-5d	Prevent all but authorized budget changes							X		
2-5e	Document changes to PMB							X		

Legend

X Key Process — Cross Process Area

Appendix 7-D: Graphical Representation of EVMS Terms



Terminology

BCWS	Budgeted Cost of Work Scheduled accomplished	Value of work planned to be
BCWP	Budgeted Cost of Work Performed	Value of work accomplished
ACWP	Actual Cost of Work Performed	Cost of work accomplished
PMB	Performance Measurement Baseline	Contract time-phased budget plan
EAC	Estimate At Completion	Estimate of total cost for contract
TAB	Total Allocated Budget	Sum of all budgets for work on contract
BAC	Budget At Completion	Total budget for contract
TCPI	To Complete Performance Index	Efficiency needed from “time now” to achieve an EAC

Variances

Cost Variance	CV = BCWP – ACWP	CV% = CV / BCWP x 100%
Schedule Variance	SV = BCWP – BCWS	SV% = SV / BCWS x 100%
Variance at Completion	VAC = BAC – EAC	

Indices (>1 is favorable; <1 is unfavorable)

Cost Efficiency CPI = BCWP / ACWP

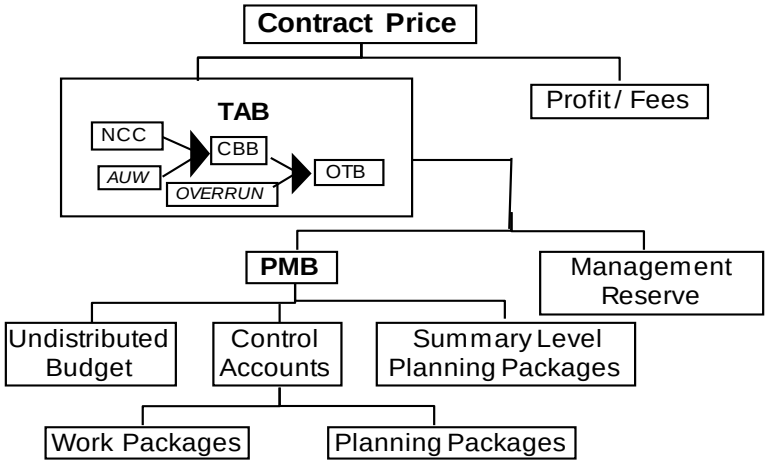
Schedule Efficiency SPI = BCWP / BCWS

Estimate at Completion

EAC = Actuals to Date + (Remaining Work / Efficiency Factor)

EAC_{Cost} = ACWP + [(BAC – BCWP) / CPI] = BAC / CPI

EAC_{Sked} = ACWP + [(BAC – BCWP) / SPI]



TERMINOLOGY

NCC	Negotiated Contract Cost	Contract price less profit / fee(s)	
AUW	Authorized Unpriced Work	Work contractually approved, but not yet negotiated / definitized	
CBB	Contract Budget Base	Sum of NCC and AUW	
OTB	Over Target Baseline	Sum of CBB and recognized overrun	
TAB	Total Allocated Budget	Sum of all budgets for work on contract = NCC, CBB, or OTB	
BAC	Budget At Completion	Total budget for total contract thru any given level	
PMB	Performance Measurement Baseline	Contract time-phased budget plan	
MR	Management Reserve	Budget withheld by Ktr PM for unknowns / risk management	
UB	Undistributed Budget	Broadly defined activities not yet distributed to CAs	
CA	Control Account	Lowest CWBS element assigned to a single focal point to plan & control scope / schedule / budget	
WP	Work Package	Near-term, detail-planned activities within a CA	
PP	Planning Package	Far-term CA activities not yet defined into WPs	
BCWS	Budgeted Cost for Work Scheduled	Value of work planned to be accomplished	= PLANNED VALUE
BCWP	Budgeted Cost for Work Performed	Value of work accomplished	= EARNED VALUE
ACWP	Actual Cost of Work Performed	Cost of work accomplished	= ACTUAL COST
EAC	Estimate At Completion	Estimate of total cost for total contract thru any given level; may be generated by Ktr, PMO, DCMA, etc. = $EAC_{Ktr\ /\ PMO\ /\ DCMA}$	
LRE	Latest Revised Estimate	Ktr's EAC or EAC_{Ktr}	
SLPP	Summary Level Planning Package	Far-term activities not yet defined into CAs	
TCPI	To Complete Performance Index	Efficiency needed from 'time now' to achieve an EAC	

EVM POLICY: DoDI 5000.2, Table E3.T2 . EVMS in accordance with ANSI/EIA-748 is required for cost or incentive contracts, subcontracts, intra-government work agreements, & other agreements valued ≥ $20M (Then-Yr $). EVMS contracts > $50M (TY $) require that the EVM system be formally validated by the cognizant contracting officer. Additional Guidance in Defense Acquisition Guidebook and the Earned Value Management Implementation Guide (EVMIG). EVMS is discouraged on Firm-Fixed Price, Level of Effort, & Time & Material efforts regardless of cost.

EVM CONTRACTING REQUIREMENTS:

Non-DoD FAR Clauses – Solicitation – 52.234-2 (Pre-Award IBR) or 52.234-3 (Post Award IBR)
Solicitation & Contract – 52.234-4

DoD(≥ **$20M) DFAR Clauses** - 252.242-7001 for solicitations and 252.242-7002 for solicitations & contracts

Contract Performance Report – DI-MGMT-81466A * 5 Formats (WBS, Organization, Baseline, Staffing & Explanation)
Integrated Master Schedule – DI-MGMT-81650 * (Mandatory for DoD EVMS contracts)
Integrated Baseline Review (IBR) - Mandatory for all EVMS contracts
* See the EVMIG for CPR and IMS tailoring guidance.

EVM Home Page = https://acc.dau.mil/evm eMail Address: EVM.dau@dau.mil
DAU POC: (703) 805-5259 (DSN 655)
Revised December 2006

Appendix 7-E: Sample Memorandum of Agreement

BETWEEN CMO AND THE COMPONENT PROGRAM MANAGER

WITH RESPECT TO

SURVEILLANCE OF INTEGRATED MANAGEMENT SYSTEMS

(IMPORTANT NOTE: This Memorandum of Agreement (MOA) is for guidance purposes only. It is intended to provide assistance in ascertaining that all of the appropriate aspects of Earned Value Management System (EVMS) surveillance are encompassed in the preparation of a specific surveillance plan. It is not intended that this MOA provide a mandatory, required format in any respect.)

1. Purpose

The purpose of this MOA is to establish the responsibilities of the (component PM) and the (Contract Management Office) with respect to EVM surveillance under all contracts issued by the (component PM). The agreement is based upon the policy and objectives of Part 2 Section 3 of the EVMS Implementation Guide and the DCMA Instruction/DCMA Guidebook.

2. Scope

This agreement describes the responsibilities and working relationships between the CMO and the PM, and the activities necessary to assure continuing effective contractor control, use, and reporting of cost, schedule, and technical performance within the purview of the EVMS requirements. This agreement is applicable to all (component PM) contracts performed at (Company), located in _____, which incorporate EVMS requirements.

3. Responsibilities

a. Program Manager:

(1) Provide overall management of the acquisition program, including support of the surveillance team, to assure continued contractor compliance with the EVMS.

(2) Provide routine feedback to the CMO on quality and utility of system surveillance efforts.

(3) Ensure that the CMO is kept fully-informed of pertinent program events, to include appropriate communications between the PM and the contractor. Program awareness is necessary so that the CMO may be fully-effective and responsive in providing the required support at all times.

(4) Request any problem analysis required beyond the scope of this MOA. Such requests are addressed to the CMO.

(5) Provide required specialized technical support needed for effective accomplishment of the EVMS surveillance program as requested.

b. CMO:

(1) Provide overall assurance that the contractor's integrated management system continues to meet the requirements of the EVMS guidelines.

(2) Develop and implement a joint surveillance plan which provides the details for accomplishing system surveillance and maintenance consistent with this MOA.

(3) Ensure the surveillance plan is a living document and continues to provide a framework for effective EVMS surveillance.

(4) Provide specialized support or problem analysis as agreed to in this MOA.

(5) Keep the PM advised of the status of contractor's integrated management system and EVMS related activities.

(6) Maintain records and submit reports as required by this MOA.

(7) Review and evaluate within 30 days of submittal, all proposed contractor integrated management system changes to determine EVMS compliance. If an ACO waiver to pre-approval of changes is granted, review changes and establish surveillance to ensure system integrity is maintained.

(8) Provide team member support, as available, for Integrated Baseline Reviews when requested by the procuring activity.

(9) Perform periodic evaluations of contract estimates at completion. Generate, when appropriate, independent EACs for submission to the program office and higher headquarters.

(10) Develop “Rules of Engagement” to effectively resolve EVM issues with the contractor and program office.

4. Surveillance Plan Framework

Details to be mutually determined by the PM and CMO in coordination with DCAA may include all or part of the following:

a. Assure continuity, consistency, quality, and usefulness of the system in operation. This includes the following:

(1) Assuring contractor commitment to EVM as a business practice, including effective surveillance.

(2) Assuring that the contractor's accepted integrated management system is, in fact, being used by the contractor to manage the program (e.g., attendance at routine contractor management program status meetings).

(3) Evaluating contractor generated changes to the system to ensure continued compliance with the guidelines.

(4) Assuring that system discipline and integrity are maintained.

b. Monitor the contractor's corrective actions resulting from surveillance findings and concerns.

c. Perform continuous analysis of the contractor’s EVMS to ensure system integrity. Frequency and level of detail are to be consistent with contract risk (e.g., compare CPI vs. TCPI for WBS element EACs, compare schedule variance vs. time based schedules for schedule accuracy).

d. Inform the contractor and PM of any uncorrected deficiencies which affect overall integrity of the contractor's system.

e. Receive, evaluate, reconcile, and process external contractor performance and financial reports, e.g., Contract Performance Reports, Contract Funds Status Reports, Integrated Master Schedule, Contractor Cost Data Reporting, etc. Verify that data is submitted in accordance with the reporting requirements.

5. Records Maintenance

The CMO establishes and maintains a central file for all pertinent data and correspondence regarding the EVMS requirements. The CMO assures that the file contains updated regulatory and guidance material pertaining to the program. The file, as a minimum, contains copies of all correspondence with the contractor and PM, system description, changes to the system, memoranda of meetings, monthly surveillance reports/activities, reconciliation of appropriate reports from the Contract Data Requirements List, and deficiency situations requiring corrective actions. Surveillance records are maintained until program completion and then forwarded for inclusion in the official contracts file. Electronic files are acceptable and encouraged.

6. Surveillance Review Meetings Among PM, CMO, and DCAA

This section provides for both scheduled and unscheduled joint meetings pertaining to the EVMS surveillance program.

7. Terms of Agreement

This agreement is effective upon signature by all parties. It is intended to remain in force for the duration of the specified contract(s); however, the terms of this agreement are subject to change at any time by mutual consent of the parties hereto.

APPROVED:

_____

CMO Director Date

APPROVED:

_____

Component Program Manager Date

Appendix 7-F: Glossary

Actual Cost – The costs actually incurred and recorded in accomplishing work performed.

Actual Date - The date on which a milestone or scheduled work task is completed.

Apportioned Effort – Effort that by itself is not readily measured or divisible into discrete work packages, but which is related in direct proportion to the planning and performance on other measured effort.

Authorized Unpriced Work – The value of authorized work on the contract that has not yet been definitized.

Authorized Work – Effort (work scope) on contract or assigned by management.

Budget At Completion (BAC) – The total authorized budget for accomplishing the program scope of work. It is equal to the sum of all allocated budgets plus any undistributed budget. (Management Reserve is not included.) The Budget At Completion will form the Performance Measurement Baseline as it is allocated and time-phased in accordance with program schedule requirements.

Contract Budget Base (CBB) – The Negotiated Contract Cost plus the cost of any Authorized Unpriced Work.

Control Account – A management control point at which budgets (resource plans) and actual costs are accumulated and compared to earned value for management control purposes. A control account is a natural management point for planning and control since it represents the work assigned to one responsible organizational element on one program work breakdown structure element.

Cost Variance – A metric for the cost performance on a program. It is the algebraic difference between earned value and actual cost (Cost Variance = Earned Value – Actual Cost). A positive value indicates a favorable position and a negative value indicates an unfavorable condition.

Critical Path – In a schedule network, the sequence of discrete work packages, planning packages, and lower level tasks and activities in the network that has the longest total duration through to a milestone (e.g., critical path to undocking) or to project completion.

Direct Costs – The costs of resources expended in the accomplishment of work which are directly charged to the affected program.

Discrete Effort – Tasks that are related to the completion of specific end products or services and can be directly planned and measured. (Also may be known as work packaged effort.)

Due Date – The date by which a milestone or task is scheduled to be completed.

Earned Value – The value of completed work expressed in terms of the budget assigned to that work.

Estimate At Completion (EAC) – The current estimated total cost for program authorized work. It equals actual cost to a point in time plus the estimated costs to completion (Estimate To Complete).

Estimate To Complete (ETC) – Estimate of costs to complete all work from a point in time to the end of the program.

Estimated Cost – An anticipated cost for specified work scope.

Estimated Completion Date – The date on which a scheduled milestone or task is currently expected to complete.

Indirect Cost – The cost for common or joint objectives that cannot be identified specifically with a particular program or activity. Also referred to as overhead cost or burden.

Internal Replanning – Replanning actions for remaining work scope. A normal program control process accomplished within scope, schedule, and cost objectives of the program.

Level of Effort – Unmeasured effort of a general or supportive nature usually without a deliverable end product. Examples are supervision and program administration.

Management Reserve – An amount of the total budget withheld for management control purposes rather than being designated for the accomplishment of a specific task or set of tasks.

Milestone – A schedule event marking the due date for accomplishment of a specified effort (work scope) or objective. A milestone may mark the start, an interim step, or the end of one or more activities.

Near Critical Path – In a schedule network, a sequence of lowest float or slack paths of discrete work packages, planning packages, and lower level tasks and activities that has the longest total duration nearest to the critical path.

Network or Network Schedule – A schedule format in which the activities and milestones are represented along with interdependencies between activities. It expresses the logic of how the program will be accomplished. Network schedules are the basis for critical path analysis, a method for identification and assessment of schedule priorities and impacts.

Organizational Structure – The hierarchal arrangement for the management organization for a program, graphically depicting the reporting relationships. The organizational structure will be by work team, function, or whatever organization units are used by the company.

Other Direct Costs – Usually the remaining direct costs, other than labor and material, such as travel and computer costs.

Over Target Baseline – Replanning actions involving establishment of cost or schedule objectives that exceed the desired or contractual objectives of the program. An over-target baseline is a recovery plan, a new baseline for management when the original objectives cannot be met and new goals are needed for management purposes.

Performance Measurement Baseline – The total time-phased budget plan against which program performance is measured. It is the schedule for expenditure of the resources allocated to accomplish program scope and schedule objectives, and is formed by the budget assigned to control accounts and applicable indirect budgets. The Performance Measurement Baseline also includes budget for future effort assigned to higher Work Breakdown Structure levels (summary level planning packages) plus any undistributed budget. Management Reserve is not included in the baseline as it is not yet designated for specific work scope.

Performing Organization – The organization unit that applies resources to accomplish assigned work.

Planning Package – A logical aggregation of work, usually future efforts that can be identified and budgeted, but which is not yet planned in detail at the work package or task level.

Program Budget – The total budget for the program including all allocated budget, management reserve, and undistributed budget.

Program Target Cost – The program cost objective based on the negotiated contract costs, or the management goal value of the authorized work, plus the estimated cost of authorized unpriced work.

Resource Plan – The time-phased budget which is the schedule for the planned expenditure of program resources for accomplishment of program work scope.

Responsible Organization – The organizational unit responsible for accomplishment of assigned work scope.

Schedule – A plan that defines when specified work must be done to accomplish program objectives on time.

Schedule Traceability – Compatibility among schedule due dates, status, and work scope requirements at all levels of schedule detail (vertical traceability) and between schedules at the same level of detail horizontal traceability.

Schedule Variance – A metric for the schedule performance on a program. It is the algebraic difference between earned value and the budget (Schedule Variance = Earned Value – Budget). A positive value is a favorable condition while a negative value is unfavorable.

Statement of Work (SOW) – The document that defines the work scope requirements for a program.

Total Allocated Budget – The Contract Budget Base (CBB) plus any amount of OTB that has been applied for performance measurement.

Undefinitized Work – Authorized work for which a firm contract value has not been negotiated or otherwise determined.

Undistributed Budget – Budget associated with specific work scope or contract changes that have not been assigned to a control account or summary level planning package.

Work Breakdown Structure – A product-oriented division of program tasks depicting the breakdown of work scope for work authorization, tracking, and reporting purposes.

Work Breakdown Structure Dictionary – A listing of work breakdown structure elements with a description of the work scope content in each element. The work descriptions are normally summary level and provide for clear segregation of work for work authorization and accounting purposes.

Work Package – A task or set of tasks performed within a control account.

Appendix 7-G: Acronyms

AC	Actual Cost
ACAT	Acquisition Category
ACO	Administrative Contracting Officer
ACWP	Actual Cost of Work Performed
ANSI/EIA	American National Standards Institute/Electronic Industries Alliance
ASN(RD&A)	Assistant Secretary of the Navy(Research, Development and Acquisition)
AUW	Authorized Unpriced Work
BAC	Budget at Completion
BCWP	Budgeted Cost of Work Performed
BCWS	Budgeted Cost of Work Scheduled
C/FSR	Contract Funds Status Report
CA	Control Account
CAM	Control Account Manager
CAO	Contract Administration Office
CBB	Contract Budget Base
CDR	Critical Design Review
CDRL	Contract Data Requirements List
CEVM	Navy Center for Earned Value Management
CFR	Code Of Federal Regulations
CMO	Contract Management Office
CPR	Contract Performance Report
CTC	Cost to Complete

CV	Cost Variance
CWBS	Contract Work Breakdown Structure
DAES	Defense Acquisition Executive Summary
DCAA	Defense Contract Audit Agency
DCAA FAO	Defense Contract Audit Agency Field Audit Office
DCMA	Defense Contract Management Agency
DFARS	Defense Federal Acquisition Regulation Supplement
DFARS PGI	Procedures, Guidance and Information
DoD	Department of Defense
DoD EVMIG	Department of Defense Earned Value Management Information Guide
DoDD	Department of Defense Directive
EAC	Estimate at Completion
ETC	Estimate to Complete
EVM	Earned Value Management
EVMS	Earned Value Management System
EVMSS	Earned Value Management Support Staff
FAR	Federal Acquisition Regulations
IBR	Integrated Baseline Review
IMP	Integrated Master Plan
IMS	Integrated Master Schedule
KPP	Key Performance Parameter
LOE	Level of Effort
LRE	Latest Revised Estimate
MIL-HDBK	Military Handbook

MOA	Memorandum of Agreement
MR	Management Reserve
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction
NAVSEANOTE	Naval Sea System Command (NAVSEA) Notice
NCC	Negotiated Contract Cost
NDIA	National Defense Industrial Association
NTE	Not to Exceed
OBS	Organizational Breakdown Structure
OMB	Office of Management and Budget
OTB	Other Target Baseline
OTS	Other Target Schedule
PDR	Preliminary Design Review
PERT	Program Evaluation Review Technique
PI	Program Integrator
PM	Program Manager
PMB	Performance Measurement Baseline
PMO	Program Management Office
PP	Planning Package
PST	Program Support Team
PV	Planned Value
RFC	Reviews for Cause
SLPP	Summary Level Planning Package
SME	Subject Matter Expert

SOW	Statement of Work
SPI	Support Program Integrator
SPO	Single Process Owner
SSOM	Standard Surveillance Operating System
SUPSHIP	Supervisor of Shipbuilding, Conversion and Repair, USN
SV	Schedule Variance
TAB	Total Allocated Budget
TCPI	To Complete Performance Index
TMP	Test Performance Measure
UB	Undistributed Budget
USD	Under Secretary of Defense
USD(AT&L)	Under Secretary of Defense (Acquisition, Technology and Logistics)
VAC	Variance at Completion
WBS	Work Breakdown Structure
WP	Work Package

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Chapter 8 – Engineering and Technical Oversight

Table of Contents

8.1 Introduction 8-5
8.1.1 Scope 8-5

8.2 Engineering Organization 8-6
8.2.1 Role of SUPSHIP Engineering 8-6
8.2.2 Functional Organization 8-6

8.3 Technical Authority 8-7
8.3.1 Exercise of Technical Authority 8-8

8.4 Major Phases and Key Processes 8-9
8.4.1 Ship/System Specification Development 8-10
8.4.2 Design 8-10
8.4.2.1 Engineering Quality Assurance Program 8-11
8.4.2.2 Ship Design Detail Drawing Review and IPT Participation 8-11
8.4.2.3 Oversight of the Shipbuilder's Configuration Management Program 8-12
8.4.2.3.1 Change Authorization 8-13
8.4.2.3.2 Departure Authorization 8-14
8.4.2.4 Assessment of Detailed Design Readiness to Support Production 8-14
8.4.2.5 Equipment Qualification Program Support 8-14
8.4.2.5.1 Participation in Factory Acceptance and First Article Testing 8-15
8.4.2.6 Weight and Moment Control 8-15
8.4.2.7 Facility Certification Support for Dry Docks, Launch Ways, Weapons Handling, Etc. 8-15
8.4.2.7.1 Dry Docks and Launch Ways 8-16
8.4.2.7.2 Ammunition and Weapons Handling 8-17
8.4.3 Construction 8-18
8.4.3.1 Technical Problem Resolution 8-18
8.4.3.1.1 Disposition of Non-Conformances 8-18
8.4.3.1.1.1 Testing Non-Conformances 8-20
8.4.3.1.1.2 Assessment of Aggregate Affect 8-20
8.4.3.1.2 Oversight of Shipbuilder Technical Problem Resolution 8-20
8.4.3.1.3 Coordination of Government Responsible Technical Issue Resolution 8-21
8.4.3.1.4 Resolution of Technical Issues Involving Other Regulatory Bodies 8-21
8.4.3.1.5 General Problem Resolution and Technical Support 8-22
8.4.3.2 Oversight of Shipbuilder Production and Engineering Procedures 8-22
8.4.3.3 Technical Support for Certification Programs and Systems (SUBSAFE, Fly-by-Wire, DSS/SOC, etc.) 8-22
8.4.3.3.1 Critical Safety Item (CSI) Source Approval 8-24
8.4.3.4 Technical Support for Key Events 8-25
8.4.3.5 Provide Project Engineering Support 8-26

8.4.3.6 Technical Support for Docking and Ship Movement Events 8-27
8.4.3.7 Oversight of Shipbuilder's Module Transportation and Ship Movement Facilities 8-28
8.4.3.7.1 Special Lift Oversight 8-29
8.4.3.8 Shock Installation Inspection Support 8-29
8.4.3.9 Coordination and Support for Systems Certification 8-30
8.4.3.10 Technical Support for Industrial, Environmental and Safety Compliance Issues 8-30
8.4.3.11 Review of Integrated Logistics Support (ILS) Products 8-31
8.4.3.12 Coordination of Technical Authority for Alteration Installation Teams (AITs)8-31
8.4.4 Test 8-32
8.4.4.1 Technical Authority Oversight of Test Programs 8-32
8.4.4.2 Review of Test Requirements, Procedures, Data, and Problem Resolution 8-33
8.4.4.3 Participation in Test Witnessing 8-33
8.4.4.4 Test Team/Test Task Group 8-33
8.4.4.5 Test and Key Event Certifications 8-35
8.4.5 Delivery 8-36
8.4.5.1 Delivery Certification (Conventionally-Powered Ships) 8-36
8.4.5.2 Delivery Certification (Nuclear-Powered Ships) 8-36
8.4.6 Post-Delivery 8-38
8.4.7 In-Service Engineering Support 8-38
8.4.7.1 Ship Class Technical Issue Resolution 8-38
8.4.7.2 Planning Yard 8-39
8.4.7.2.1 Oversee the Technical Adequacy of Shipbuilder's Planning Yard Products 8-39

Appendix 8-A: Acronyms 8-41

References

(a) NAVSEAINST 5400.97C, Virtual SYSCOM Joint Instruction, VS-JI-22A, Engineering and Technical Authority Policy

(b) NAVSEAINST 5400.95F, Waterfront Engineering and Technical Authority Policy

(c) SECNAVINST 5400.15C, Department of the Navy (DON) Research and Development, Acquisition, Associated Life-Cycle Management, and Logistics Responsibilities and Accountability

(d) NAVSEAINST 5400.111A, NAVSEA Engineering and Technical Authority Policy

(e) NAVSEAINST 4130.12B, Configuration Management (CM) Policy and Guidance

(f) NAVSEAINST 5000.9, Naval SYSCOM Systems Engineering Policy

(g) NAVSEAINST 11420.1B, Drydocking and Launching Facilities Safety Certification for U.S. Navy Ships

(h) MIL-STD-1625, DoD Standard Practice Safety Certification Program for Drydocking Facilities and Shipbuilding Ways for U.S. Navy Ships

(i) OPNAVINST 8020.14A, Department of the Navy Explosives Safety Policy

(j) NAVSEA OP4, Ammunition and Explosives Safety Afloat

(k) NAVSEA OP5, Ammunition and Explosives Ashore Safety Regulations for Handling, Storage, Production, Renovation & Shipping

(l) COMFLTFORCOMINST 4790.3, Joint Fleet Maintenance Manual (JFMM)

(m) Uniform Industrial Process Instruction (UIPI) 0900-453, Critique and Problem Analysis Matrix Processes

(n) NAVSEA 0924-062-0010, Submarine Safety (SUBSAFE) Requirements Manual

(o) NAVSEA SS800-AG-MAN-010/P-9290, System Certification Procedures and Criteria Manual for Deep Submergence Systems

(p) NAVSEA T9044-AD-MAN-010, Submarine Fly-by-Wire Ship Control Systems Requirements Manual

(q) NAVSEAINST 9078.1, Naval Ships' Critical Safety Item Program

(r) NAVSEAINST 9078.2, Naval Ships’ Critical Safety Item (CSI) Program Technical Requirements

(s) Navy Regulations

(t) S9086-7G-TM-010/CH-997, Docking Instructions and Routine Work in Drydock

(u) NAVSEAINST 9072.1A, Shock Hardening of Surface Ships

(v) OPNAVINST 5102.1D, Navy & Marine Corps Mishap and Safety Investigation, Reporting, and Record Keeping Manual

(w) NAVSEA Technical Specification TS9090-310F, Alterations to Ships Accomplished by Alteration Installation Teams

(x) S9092- AC-ADM-010/ITPAM, Industrial Test Program Administration Manual (ITPAM)

(y) S9002-AK-CCM-01 0/6010, Industrial Ship Safety Manual for Submarines

(z) INSURVINST 4730.3, Trials of Surface Ships

(aa) OPNAVINST N9080.3G, Procedures for Tests and Trials of Naval Nuclear Powered Ships Under Construction, Modernization, Conversion, Refueling and Overhaul

(bb) SL720-AA-MAN-010, Fleet Modernization Manual

(cc) SL720-AA-MAN-030, Navy Modernization Process Management and Operational Manual (NMP-MOM

(dd) NAVSEA S9AA0-AB-GOS-010, General Specifications for Overhaul of Surface Ships (GSO)

(ee) NAVSEA 0902-LP-018-2010, General Overhaul Specifications for Deep Diving SSBN/SSN Submarines

List of Figures

Figure 8-1. Notional SUPSHIP Engineering Department Functional Organization 8-7

Figure 8-2. Technical Authority Pyramid 8-8

Chapter 8 – Waterfront Engineering and Technical Authority

8.1 Introduction

This chapter discusses engineering oversight in support of contracts for the construction, conversion, overhaul, and repair of ships, submarines and craft. It addresses waterfront technical authority and the roles and responsibilities of the Engineering Department through major phases of new construction, conversion and repair.

The primary goal of the SUPSHIP engineering oversight function is to effectively monitor and influence contractor engineering and waterfront technical performance to ensure that Navy ships and submarines meet performance and quality requirements and that delivery occurs on time and within cost. Engineering oversight is imperative to successful performance of ship design and construction contracts.

SUPSHIPs perform contract administration and oversight in their role as a Contract Administration Office (CAO) in accordance with Federal Acquisition Regulations (FAR) subpart 42.302 and the Defense Acquisition Regulations Supplement (DFARS). In support of this function, the Engineering Department provides engineering and technical services in major phases of acquisition including Ship Specification Development, Design, Construction, Test, Post-Delivery, and In-Service functions. Ship specification development and design services are provided in support of the NAVSEA Ship Design Manager (SDM). The main function of the SUPSHIP Engineering Department is waterfront oversight during the construction, conversion or maintenance and testing phases with a support role in post-delivery. These various roles and responsibilities are discussed in more detail in section 8.4.

The head of the Engineering Department reports to SUPSHIP command management, ultimately responsible to SEA 04, with additional responsibilities as a warranted Waterfront Chief Engineer (CHENG) to the Chief Engineer of the Navy, SEA 05. Technical authority policy and guidance, including the warranting of qualified individuals, is provided at the systems command (SYSCOM) level by reference (a), NAVSEAINST 5400.97C (Virtual SYSCOM Joint Instruction, VS-JI-22A), Virtual Syscom Engineering and Technical Authority Policy. Reference (b), NAVSEAINST 5400.95F**, Waterfront Engineering and Technical Authority Policy, establishes engineering and technical authority policies for SUPSHIPs and other NAVSEA activities. Section 8.3 of this chapter provides a detailed discussion of a Waterfront CHENG's responsibilities.

8.1.1 Scope

In general, SUPSHIP engineering authority extends to all technical and engineering matters associated with contracts administered by a SUPSHIP. This will typically include hull, mechanical, electrical/electronic, propulsion, and combat systems, but does not apply to those nuclear propulsion components and systems that fall under the cognizance of SEA 08.

** Denotes secure hyperlink requiring NMCI/CAC access

It also excludes systems that are procured under contracts for which SUPSHIP is not the Administrative Contracting Officer (ACO), such as the Aegis weapons system.

In some cases, NAVSEAINST 5400.95F** assigns technical authority to a SUPSHIP CHENG outside of the ACO support role, for instance, over a Fleet Maintenance Activity (FMA). In this role the utilization of resources within the SUPSHIP Engineering Department is recognized as mission-funded.

8.2 Engineering Organization

8.2.1 Role of SUPSHIP Engineering

The Engineering Department provides technical expertise in all facets of shipbuilding as required by NAVSEAINST 5400.95F**, and may include support to multiple shipbuilding and repair programs at any one time. The major function of SUPSHIP Engineering is to support waterfront activities during construction, conversion or maintenance and testing phases, but the organization also acts in a support role to the SDM during specification development and design phases. The primary roles and responsibilities in this effort include:

- Resolving technical problems
- Processing departures
- Overseeing shipbuilder engineering and technical product quality
- Overseeing shipbuilder production/engineering procedures
- Supporting key construction and test events

Additional roles and responsibilities are enumerated in section 8.4. SUPSHIP Engineering, in conjunction with other SUPSHIP departments, oversees the shipbuilder's execution of the contract to insure that a platform is built to contractual requirements.

8.2.2 Functional Organization

The organizational structure needed to support the Engineering Department mission is basically consistent across the SUPSHIPs, but is not identical due to the diverse nature of the products, contracts and contractors. One consistent aspect of the engineering organization is that the department head is warranted as a waterfront chief engineer by a SEA 05 Deputy Warranting Officer (DWO) who reports to the Chief Engineer of the Navy, SEA 05. The engineering organization is staffed with degreed engineers and experienced technicians across the many disciplines involved in ship design and construction, including mechanical, structural, electrical, electronics, and naval architecture. These disciplines are further divided into more discrete functions such as piping, mechanical systems, test, structures, etc. This organizational structure supports work on all contracts for each project and is enhanced in this respect by the implementation of dedicated Project Engineers (see section 8.4.3.5). Figure 8-1 depicts a notional engineering organization. Subsequent

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sections will further describe engineering department major functions and key processes (section 8.4).

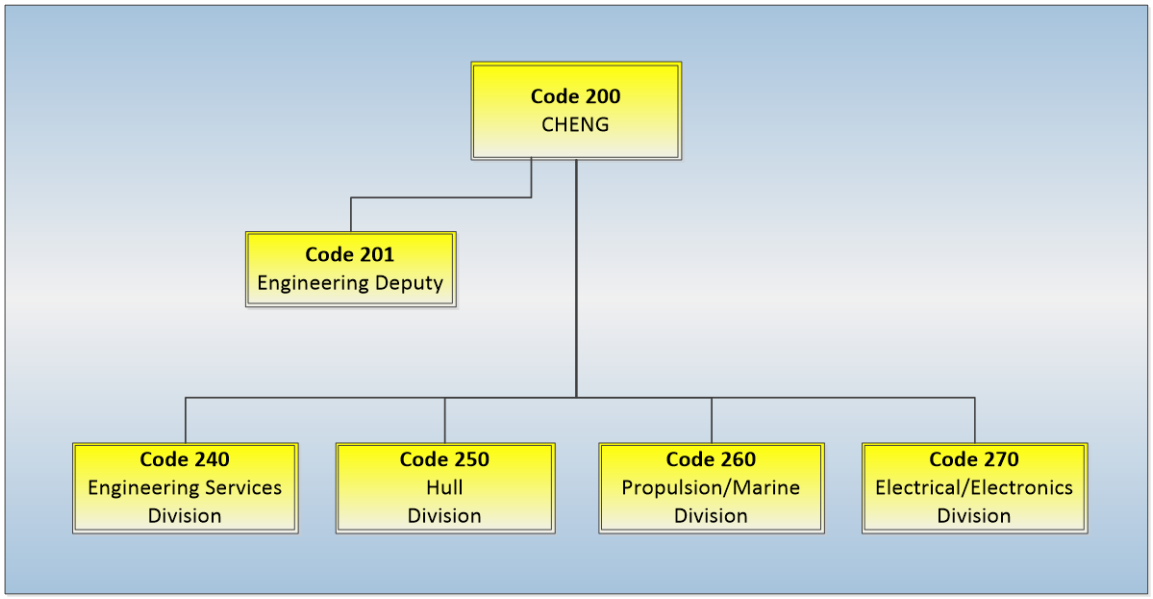

Figure 8-1. Notional SUPSHIP Engineering Department Functional Organization

8.3 Technical Authority

As identified in reference (c), SECNAVINST 5400.15C, Department of the Navy (DON) Research and Development, Acquisition, Associated Life-Cycle Management, and Logistics Responsibilities and Accountability, the Commanders of the Systems Commands (SYSCOMs) are responsible for serving as the technical authority and operational safety and assurance certification authorities for their assigned areas of responsibility. In support of this responsibility, COMNAVSEA has established roles and responsibilities in NAVSEAINST 5400.97C, Virtual Syscom Engineering and Technical Authority Policy, to include Technical Authority with SEA 05 as the NAVSEA CHENG. Further delegation is addressed in NAVSEAINST 5400.95F**, Waterfront Engineering and Technical Authority Policy. Figure 8-2 provides a graphical depiction of the hierarchy of technical authority within NAVSEA.

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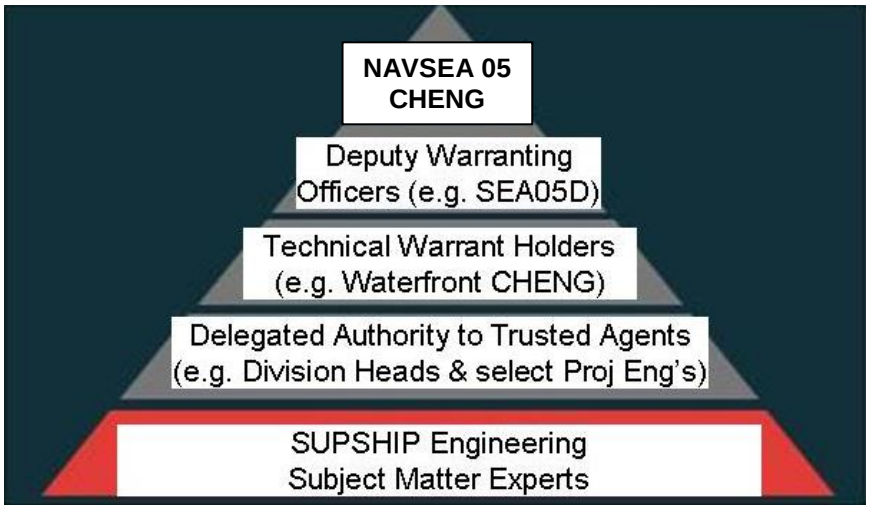

Figure 8-2. Technical Authority Pyramid

8.3.1 Exercise of Technical Authority

NAVSEAINST 5400.95F**, Waterfront Engineering and Technical Authority Policy, establishes waterfront engineering and technical authority for NAVSEA activities and specifies the accountability and responsibilities of the Waterfront CHENGs. For SUPSHIP Waterfront CHENGs, this entails:

1. Accountability to the Supervisor, their Deputy Warranting Officer, the NAVSEA Chief Engineer, and COMNAVSEA for all engineering and technical authority for their assigned activities, except for matters related to design and integration for which the SDM is accountable.

2. Responsibility and accountability for all engineering and technical decision-making accomplished by their assigned activities for:

    a. Setting local technical standards

    b. Providing technical area expertise

    c. Ensuring safe and reliable operations

    d. Ensuring effective and efficient systems engineering

    e. Employing judgment in making unbiased technical decisions

    f. Providing stewardship of engineering and technical capabilities

    g. Maintaining accountability and technical integrity

3. Authority to determine conformance and non-conformance to specifications, determine the significance of non-conformances and disposition them, and make

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decisions where it is clear that no higher-level technical guidance or requirement is necessary.

4. Interface with the Ship Design Manager (SDM). For ship construction and CVN Refueling Complex Overhauls (RCOHs), the SDM is responsible and accountable for technical oversight of the design. This includes working as a team with the SUPSHIP CHENG and other Technical Warrant Holders (TWHs) and subject matter experts to develop and approve the detailed ship design. During execution of ship construction and CVN RCOHs, the Waterfront CHENG is the technical lead responsible for technical resolution of construction (or overhaul) non-conformances and work deferrals, and is responsible and accountable to adjudicate them in accordance with NAVSEAINST 5400.95F** and any program implementing documents (e.g., Drawing Approval Procedure (DAP), Engineering Management Plan (EMP), Availability Completion Plan, etc.). The SDM is a first-line resource for the Waterfront CHENG when questions arise that are beyond the scope of the Waterfront CHENG's Engineering Department or require NAVSEA action.

5. Construction Design Yards, Planning Yards and Planning Activities may be designated as engineering agents and delegated sufficient engineering responsibilities to perform the assigned mission. The policy for the selection, assignment, responsibilities, tasking, and appraisal of engineering agents is contained in reference (d), NAVSEAINST 5400.111A**, NAVSEA Engineering and Technical Authority Policy.

8.4 Major Phases and Key Processes

This section describes the key SUPSHIP Engineering Department processes organized by the ship acquisition phase in which they first occur, although many of these processes occur across multiple phases. For the purposes of this chapter, the acquisition phases are defined by the major function being performed and cover the full life cycle of a ship class, including:

- Ship/System Specification Development
- Design
- Construction
- Test
- Delivery
- Post Delivery
- In-Service Engineering Support

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8.4.1 Ship/System Specification Development

The SUPSHIP Engineering Department has the expertise to contribute to the initial phases of platform acquisition. NAVSEAINST 5400.95F** specifies the support role of the Waterfront CHENG in platform design efforts, including ship specification development and detailed design to the extent practicable. While the SDM is responsible and accountable for technical oversight of the design, the Waterfront CHENG, along with other technical warrant holders and subject matter experts, act as a team to develop and approve the detailed ship design. The value added to this process by the waterfront engineering organization is derived from considerable knowledge and experience in the constructability and testing of designs through lessons learned on previous platforms. Furthermore, SUPSHIP involvement in specification development works to insure that a knowledgeable engineering staff is ready and available at the shipyard to carry out the technical responsibilities of contract administration for construction, test and delivery of platforms.

SUPSHIP Engineering may participate in the specification development phase through specification review and comment validation. Specification review includes both shipbuilding specifications and, when applicable, specifications for engineered components. The SDM assesses comments from multiple organizations and includes those applicable in an approval letter to the design contractor. In some cases, the SDM may rely on the local SUPSHIP Engineering organization to validate proper incorporation of all comments into the specification.

In addition to ship specification development, SUPSHIP Engineering may participate in the development of individual military specifications. This is done through the Standards Improvement Board (SIB) which submits individual specification updates to the CHENGs for comment on an ongoing basis. The CHENGs can opt to contribute to the review or not, depending on the applicability of the specification to responsible platforms and the availability of resident expertise. The CHENG should comment, however, on any input provided by a contractor under SUPSHIP cognizance.

8.4.2 Design

As stated above, the SUPSHIP CHENGs have the responsibility and accountability for all engineering, technical work and technical support executed by the shipbuilder and other activities, except for matters related to design and integration under the responsibility of the SDM. In support of the SDM, however, SUPSHIP Engineering may participate in design reviews, working groups and in the review of the detailed design products. The extent of participation is determined by programmatic requirements or, in the absence of such, to the extent practicable as dictated by engineering workload and available resources. The level of mandatory participation, as defined by programmatic requirements, must be established early in the program's development phase to allow for adequate resource planning and appropriate funding.

Generally, SUPSHIP Engineering reviews all design products requiring government approval, and audits those that do not. Participation in the design phase allows engineers to

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become familiar with the design prior to the start of construction and provides an opportunity to apply waterfront lessons learned to the design process. To this end, it is important that the SDM and CHENG work closely to leverage off each other's resources. In the absence of programmatic requirements documents, development of a written Engineering Management Plan is encouraged to establish lines of responsibility for the various aspects of the design process. The purpose of the Engineering Management Plan is to establish and communicate an approach for managing the government's technical oversight of the Detail Design and Construction (DD&C) of ships and delineate workload sharing between SDM and SUPSHIP CHENG.

8.4.2.1 Engineering Quality Assurance Program

The Engineering Quality Assurance (EQA) Program is a supplement to the Contract Administration Quality Assurance Program (CAQAP) that assesses the technical quality of contractors' engineering and technical products. The EQA program and associated processes shall be formally documented in local instructions or procedures.

The EQA Program will provide for:

- Monitoring of and reporting on the quality of the shipbuilder's engineering and design technical data products
- Evaluation of the contractor's Technical Product Quality program and Quality Management System (QMS) policies and procedures for compliance with contract requirements
- Identification, trending, analyzing, and improving shipbuilder engineering technical products

The EQA program is data driven and metrics are compatible with shipbuilder metrics to ensure deficiency resolutions are readily actionable. Metrics are derived from products reviewed for government approval or via product audit and are formally reported. The report provides a summary of significant audit findings and trends. The ultimate goal of the EQA program is timely identification of substandard process trends to minimize future occurrences.

8.4.2.2 Ship Design Detail Drawing Review and IPT Participation

The CHENG and SDM share responsibility for reviewing and monitoring the ship's design and detail design drawings and ensuring an appropriate level of naval architects and engineering personnel are available for this function.

Ship design personnel utilize specialized design and engineering software to support computer modeling, engineering analysis and finite element analysis. They also develop projected weight reports, prepare schematics, provide detailed drawings, develop lofting packages, identify Long Lead Time Material (LLTM) requirements, develop Material

Requirements Listings (MRLs), etc. The shipbuilder's management team will typically develop an Integrated Master Schedule (IMS) for design product delivery and fabrication that supports overall program scheduling requirements. The design products are reviewed as early as possible by the production planning team and shop personnel to help develop the production processes and shop floor practices and construction plans for erecting the ship.

As part of the Navy review team, SUPSHIP Engineering may be asked to support reviews of 3D models of new ship designs and baseline upgrade designs. SUPSHIP engineers provide valuable insight into ship construction processes and methods, inspection requirements, test execution considerations, lessons learned from previous ship class designs, and operation and maintenance factors that can be affected by design decisions.

As established by programmatic requirements SUPSHIP engineering personnel may participate on Integrated Product Teams (IPTs), including System Integration Teams (SITs), Major Area Teams (MATs) and Major Area Integration Teams (MAITs). In addition, they review the shipbuilder's engineering products and drawings and assess the shipbuilder's compliance with the contract's technical and performance specifications.

8.4.2.3 Oversight of the Shipbuilder's Configuration Management Program

The Configuration Management (CM) program ensures that the initial design of a ship is fully documented in the design database and drawings, and that changes to the design during the life of the ship are fully documented. The change process is governed by various procedures and requirements, such as ship specifications, drawing approval procedures, etc. These changes may be changes to the design as authorized by the Program Manager (PM) or changes from the design baseline as a result of non-conforming, as-built conditions. All changes are reviewed by the appropriate organizations (projects, planning and/or engineering) and controlled by the program manager's office. A detailed discussion on configuration management can be found in Appendix 5-D.

Depending on the acquisition program, SUPSHIP Engineering may review technical documents such as initial design drawings, component specifications and test procedures, to verify that the proposed as-designed ship configuration fulfills the intent of the design and is technically acceptable. As approved by the SDM, changes to the as-designed ship configuration may be accomplished using various design change alteration procedures (discussed below) and drawings, some of which may be reviewed and approved by SUPSHIP Engineering as the applicable approval authority.

During ship construction, the configuration of the ship may change due to a component or system non-conformance to required specifications. These as-built non-conformances are documented using local procedures and the governing change process and evaluated by the appropriate approval authority, which may be SUPSHIP or NAVSEA, to determine the acceptability of the non-conforming condition. The non-conformance is reviewed for technical integrity and soundness and to assess the impact on the life-cycle logistics of the component or system. Non-conformances that require modification of existing life-cycle elements, such as operating and maintenance procedures, technical manuals, spare parts, training, etc., must be tracked and entered into the ship's configuration database to ensure

procedures and hardware (for example, spare parts and supporting equipment) are available and maintained for the life of the ship.

Formal audits of the contractor's configuration control system may be conducted to verify the system accurately reflects the as-built condition of each item. This confirmation of system accuracy provides increased assurance that unexpected increases in life-cycle costs will be minimized.

8.4.2.3.1 Change Authorization

SUPSHIP Engineering will technically review changes, including contract specification change authorizations and drawing changes or revisions. If requested, Engineering will assist the SUPSHIP Contracts Department in negotiating or participating in the development of a Technical Advisory Report (TAR). This would involve the review of man-hours and material estimates.

Contract changes may include, but are not limited to, Specification Chance Notices (SCNs), Specification Change Proposals (SCPs), Engineering Change Proposals (ECPs), Engineering Change Notices (ECNs), Headquarters Modification Requests (HMRs), and Field Modification Requests (FMRs). Some SUPSHIPs also participate in Fiscal Year Upgrades, Flight Upgrade ECPs, and Fiscal Year Design Budget Changes.

Drawing changes are generally governed by contractual documents, such as a Drawing Approval Procedure (DAP) or equivalent. Drawing changes can be class-wide or specific to a block of ships in a class; therefore, drawing indices must be maintained for each individual ship. The role of the SUPSHIP Engineering Department is to review these change documents for adequacy of technical content and, in the case of drawing changes, adherence to specification requirements to ensure configuration integrity is maintained through contractor audits as described above. Additionally, the subject matter experts and systems engineers ensure the changes are cost-effective and producible and meet program objectives.

Some SUPSHIPs participate in processing Value Engineering Change Proposals (VECPs), also known as Cost Reduction Candidates, which can be written by Industry, SUPSHIPs, TWH, Program Executive Office (PEO) IWS, PEO C4I, and the Program Office. The SUPSHIP Engineering reviews the technical data packages to ensure that the proposal meets the contractual, technical, design, and production requirements, as well as lifecycle cost savings for the program. VECPs potentially can reduce costs against several programs.

In addition to ensuring technical adequacy of individual changes and departures, the accounting, control and monitoring of changes and departures are aspects of configuration management performed by SUPSHIP in cooperation with the Program Manager as outlined in reference (e), NAVSEAINST 4130.12B, Configuration Management (CM) Policy and Guidance. Unnecessary changes put contract completion within allocated funding at risk. The establishment of effective local procedures, the training of personnel to carry out the procedures, and effective supervision will result in the approval of only necessary and

beneficial changes based on full knowledge of the impact of the changes on cost and delivery schedule and timely implementation of such changes.

8.4.2.3.2 Departure Authorization

SUPSHIP Engineering will technically review departures from specification or drawing requirements. Departures are normally in the form of a deviation and are generally applicable to only one ship. They constitute the as-built configuration of a ship and are liabilities against specification or drawing requirements. To maintain configuration management, these liabilities must be coupled to the departed specification or drawing. The role of the SUPSHIP Engineering Department is to review and/or approve departures for technical adequacy in accordance with programmatic and technical authority requirements. See section 8.4.3.1.1, Disposition of Non-Conformances, for more information.

8.4.2.4 Assessment of Detailed Design Readiness to Support Production

Reference (f), NAVSEAINST 5000.9**, Naval SYSCOM Systems Engineering Policy, requires a Systems Engineering Technical Review (SETR) be conducted to assess the detailed design aspects which support Production Readiness (PR). This review is normally only done on the lead ship of a class. It is referred to as a “SETR PR”, and is led by the SDM with contributions and inputs from the Waterfront CHENG when requested.

In addition to the SETR PR, most shipbuilding contracts have requirements for the shipbuilder to conduct a Production Readiness Review (PRR). The PRR covers a broad range of items which affect Production Readiness, of which design maturity is just one aspect. When conditions permit, the SETR PR should be conducted a short time **after** the shipyard’s PRR so that the information the shipbuilder presents at the PRR can be fully appraised and factored into the assessment.

8.4.2.5 Equipment Qualification Program Support

SUPSHIP Engineering participates in a variety of activities to ensure significant non-standard purchase specification equipment conforms to requirements and to increase insight into any technical issues prior to receipt at the shipyard. These activities include reviewing purchase specifications and procurement consent packages, attending design and production reviews, and reviewing test procedures, vendor drawings and technical manuals. Efforts are focused on high risk equipment that has not yet completed first article testing. These are typically developmental items incorporating new technologies or involving complex integration with other systems. If not monitored closely, these items have the potential to adversely affect overall ship cost and schedule. To the extent practicable, SUPSHIPs will witness first article and qualification testing of these items to verify requirements are met and that any non-conformance is properly documented and resolved. These efforts also increase SUPSHIP familiarity and expertise in order to be more effective in working through installation, test and activation issues.

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SUPSHIP Engineering provides input to SUPSHIP QA for coordinating Government Source Inspections (GSI) with the Defense Contract Management Agency (DCMA) activity having plant cognizance for the equipment vendor. This provides reasonable assurance that technical and quality related matters will be identified and corrective actions will be taken by the shipbuilder prior to shipment. Delegation of GSI to DCMA is also based on quality and cost risk and is usually invoked on only a portion of the contractor's purchase specification equipments.

8.4.2.5.1 Participation in Factory Acceptance and First Article Testing

SUPSHIP Engineering may participate in factory acceptance testing and first article testing of high risk or developmental equipment and systems. High risk items are those that may significantly increase the overall ship cost, are within the critical path of the ship's schedule, have historically experienced difficulty meeting technical requirements, or involve complex integration with other sub systems onboard the ship. Developmental items are newer technology equipment and systems that have not been applied to Navy ships or are being applied in a unique or expanded way. Participation primarily includes review of test procedures and witnessing of tests to confirm technical performance of the items and verification of the interfaces at the original equipment manufacturer (OEM) facility.

8.4.2.6 Weight and Moment Control

Shipbuilding, conversion and maintenance contracts contain requirements for the shipbuilder to establish a mass properties (weight) control and reporting program.

SUPSHIP will maintain oversight throughout detail design, construction and repair to ensure that the contractor has complied with the requirements for weight and moment control. Oversight is provided to verify that the contractor is actively engaged in carrying out a weight control program to meet the contractually specified values for displacement and vertical center of gravity, as well as specified list and trim conditions stated in the ship's specifications. The weight control and reporting program requirements are defined in the Shipbuilding Specifications for new construction or the Availability Work Package (AWP) for repair or overhaul. One person within the SUPSHIP Engineering Department will be assigned as the Weight Control Program Coordinator to monitor the shipbuilder's efforts. The coordinator will have this duty as a primary function and will be assigned all necessary support to perform the weight control function.

A local instruction will delineate specific responsibilities throughout the command, including those assigned to the Engineering Department to ensure contract requirements are met.

8.4.2.7 Facility Certification Support for Dry Docks, Launch Ways, Weapons Handling, Etc.

The purpose of this section is to describe the involvement of SUPSHIP Engineering in support of safety certification of industrial facilities; a function critical to the protection of the ship and the safety of personnel.

8.4.2.7.1 Dry Docks and Launch Ways

The governing documents for the Facility Certification program are reference (g), NAVSEAINST 11420.1C**, Drydocking and Launching Facilities Safety Certification for U.S. Navy Ships, and reference (h), MIL-STD-1625D), DoD Standard Practice Safety Certification Program for Drydocking Facilities and Shipbuilding Ways for U.S. Navy Ships.

SUPSHIP roles and responsibilities in support of NAVSEA 04XQ, the technical warrant holder for dry docks and launch ways, may include:

- Providing management oversight and technical expertise to the shipbuilder's initial Facility Certification Report (FCR) process as required by the shipbuilding contract prior to transferring and launching a vessel. This involves:
    - Developing a course of action to ensure that new drydock and launching facility certifications or recertifications are following references (g) and (h)
    - Reviewing all certification-related documentation for completeness
    - Submitting documentation to NAVSEA 04XQ, the technical warrant holder
    - Verifying contractor's compliance with certification terms and conditions
- Providing management oversight and technical expertise to the shipbuilder's maintenance, inspections and re-certifications of its facility and dry-docks to remain Navy certified as follows:
    - Assisting the designated Navy inspection team in scheduling the NAVSEA 04XQ triennial facility certification audit with the commercial activity and participating in the audit
    - Ensuring that reports affecting facility certification are sent to NAVSEA 04XQ, including those that involve:
        - Facility modifications, which change the basic design or capacity
        - Changes to key personnel
        - Changes to operating procedures or manning
        - Drydocking a non-Navy vessel that exceeds the facility's certified line load
        - Accidents, incidents or near misses. These include damage to the facility to such an extent that its ability to operate safely is diminished. This report will be required whether or not a ship is in the facility at

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- the time damage occurs and whether or not the cause of the damage was natural or man-made.

- Providing oversight for commercial activity facility control inspections as follows:
    - Providing qualified individuals such as docking observers, surveyors or engineers to accompany commercial activities during control inspections.
    - Reviewing the activity's control inspection results for accuracy and completeness and concur with the results based on their observations during the inspections. If the inspection results are determined to be inaccurate or incomplete, ensuring the activity determines the reason for the discrepancy and implements corrective action as applicable.
    - Verifying the qualifications of the activity's control inspection personnel, including divers that conduct underwater inspections, and that inspection personnel qualification records are maintained by the activity.
    - Reviewing the inspection instructions for divers and being present during the briefing of the divers to ensure that they understand their inspection responsibilities.
    - Being present (topside) during diver inspections to monitor the extent of the underwater inspections and note the results reported by the divers.
    - Maintaining records of the control inspection reviews and inspector qualifications for the triennial NAVSEA maintenance audit.

8.4.2.7.2 Ammunition and Weapons Handling

Reference (i), OPNAVINST 8020.14A, Department of the Navy Explosives Safety Management Policy Manual, establishes the Navy's safety policies, procedures and requirements for handling ammunition and explosives. Explosive handling operations will be performed only at authorized explosives handling berthing locations, such as ordinance facilities and explosive anchorages. Waivers and exemptions of explosive safety standards and criteria are authorized by the Secretary of Defense, delegated to the Chief of Naval Operations (CNO), in order to maintain strategic readiness of U.S. Naval Forces. Waterfront facilities authorized by the CNO have approval for handling limited quantities of ammunition and designated types and quantities of explosives only in designated berthing locations. Ammunition handling will be conducted in accordance with reference (i), NAVSEA OP4, Ammunition and Explosives Safety Afloat, and reference (k), NAVSEA OP5, Ammunition and Explosives Ashore Safety Regulations for Handling, Storage, Production, Renovation & Shipping. SUPSHIPs involved with ammunition and weapons handling have established detailed procedures on roles and responsibilities within the Navy and with the shipbuilder for carrying out these evolutions.

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8.4.3 Construction

The construction phase is the longest phase in a ship acquisition project, and from a SUPSHIP's perspective, it is arguably the most demanding. This is particularly true for the Engineering Department. Not only does this phase demand the greatest variety of SUPSHIP engineering responsibilities, it also imposes these responsibilities across the broadest scope of work being performed by the shipbuilder, subcontractors, vendors, and other government activities. The following sections describe the Engineering Department's construction phase responsibilities in greater detail.

8.4.3.1 Technical Problem Resolution

8.4.3.1.1 Disposition of Non-Conformances

New construction departures are normally in the form of a waiver/deviation request and are generally applicable to only one ship. They constitute the as-built configuration of a ship and are liabilities against specification or contract document requirements. These liabilities must be linked to the specification or contract document being departed from in order to maintain configuration management. The SUPSHIP Engineering Department reviews and dispositions non-conformances for technical adequacy in accordance with programmatic and technical authority requirements.

Non-conformances are identified when a system, component, process, or procedure does not conform to a design, technical, or quality assurance contractual requirement. Non-nuclear deviation requests requiring government approval are forwarded to SUPSHIP for engineering review and approval by the CHENG or other technical warrant holders as appropriate. Minor deviation requests are approved by the waterfront CHENG. Major deviations exceed the authority of the local CHENG and require higher level approval per technical authority and programmatic requirements. SUPSHIP may review and provide technical recommendations to the higher authority.

Process

A non-nuclear waiver/deviation request is documented by the shipbuilder and submitted per the applicable contract requirement, normally a CDRL. The SUPSHIP Engineering Department then reviews for proper classification and technical acceptability. Non-conformances are classified as major or minor based on the associated risk and criteria listed in the applicable contract and NAVSEAINST 5400.95F**. The CHENG utilizes all necessary subject matter experts within the SUPSHIP Engineering Department, as well as other technical warrant holders and In-Service Engineering Agents (ISEA), to ensure adequate technical justification exists to accept the condition. When the non-conformance could lead to a ship design engineering change, the SDM is contacted and involved in the approval process.

When the engineering review is complete and the technical justification is found to be acceptable, the CHENG or delegated local approval authority may approve a minor non-

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conformance. Major non-conformances are forwarded to NAVSEA in accordance with the applicable contract and NAVSEAINST 5400.95F**.

Depending on the program, new construction or repair, and the shipyard, various systems are used to initiate, route, track and document non-conformance adjudication. The Electronic Departure from Specification System (E-DFS) is used for post-delivery departures in accordance with the reference (l), COMFLTFORCOMINST 4790.3, Joint Fleet Maintenance Manual (JFMM), Volume V, Quality Maintenance. Post-delivery non-conformances are classified as "temporary" or "permanent" and are assessed for major/minor classification IAW NAVSEAINST 5400.95F**. Non-conformances are approved as permanent when the condition will last the expected life of the ship or as temporary when a repair is planned for a later time.

For non-nuclear ships, the CHENG is responsible for identifying non-conformances that in their judgment are necessary to be made known to future repair activities. These will include documentation of any significant condition that can be measured or observed to be not in accordance with NAVSEA requirements, but that has been evaluated and permanently accepted by the appropriate Technical Authority. Examples include, but are not limited to:

1. Oversized or undersized shafts, bearings or other major components.
2. Observable material substitutions that are not specifically called out on the installation drawing.
3. Material substitutions or repairs (whether observable or not) that will have an adverse effect on durability or maintainability.
4. Conditions that will affect the logistics chain including spare parts, repair procedures, Periodic Maintenance Cards (PMCs), EOSS procedures, etc.
5. Stud standouts, shock clearance envelope violations, abnormal valve settings, or any other condition that would be recognizable as a non-conformance to a trained observer.

Examples of things that should not be included:

1. Process variations (missed inspections, out of sequence test or work steps, exceeded cure times for paint systems, etc.)
2. Items that in the opinion of the CHENG meet the intent of the specification, but are not in verbatim compliance (font size on lettering, cosmetic variations in appearance, human engineering and accessibility requirements for access to equipment, etc.)

CHENG is responsible to apply the above criteria, identify the approved waivers/deviations that require a permanent DFS and either enter them or provide copies of these to NAVSEA 05S for incorporation into eDFS as permanent records for historical purposes.

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8.4.3.1.1.1 Testing Non-Conformances

The ship test program is another source of waterfront technical problems requiring government involvement for resolution. Test problems can come in the form of inaccurate or out-of-specification data or test process or procedure challenges. Test problems are documented and adjudicated in various ways depending on the construction program, the shipyard involved, or whether it pertains to new construction or repair work. The level of approval for a test non-conformance is dependent on specific program requirements for new construction and/or Navy test program requirements as discussed in section 8.4.4. SUPSHIP Engineering will witness testing as necessary to resolve test problems.

8.4.3.1.1.2 Assessment of Aggregate Affect

A temporary non-conformance considered technically acceptable when reviewed individually could create an adverse effect on the ship when “stacked-up” or considered with other concurrently existing temporary non-conformances. Permanently approved non-conformances are considered technically acceptable for the life of the ship and would not fall under the scope of the aggregate review.

The aggregate review is performed to ensure that the combined effects of temporary non-conformances or work deferrals do not create an adverse condition for the ship in support of ship certification events. Aggregate reviews will typically be performed prior to significant ship key events, such as prior to sea trials, delivery, or redelivery. Various methods of aggregate reviews can be performed, but SUPSHIP Engineering offices should have instructions outlining their process.

8.4.3.1.2 Oversight of Shipbuilder Technical Problem Resolution

Naval ships are incredibly complex machines and their construction and testing is inherently subject to unforeseen problems that must be resolved in a timely manner to support operational requirements and construction schedules. For work performed by private shipyards, it is the responsibility of the contractor to resolve these problems. When the problems cannot be resolved within approved processes or technical specification requirements, the SUPSHIP becomes involved. The role of SUPSHIP Engineering is to assess the adequacy of technical alternatives proposed by the contractor and to work with the contractor to support timely resolution. The SUPSHIP works within the confines of both technical and programmatic authority imposed, respectively, by the Waterfront Technical

Authority of the CHENG and the programmatic authority delineated by the particular acquisition program. Problem resolution varies depending on the program and the type of problem, often involving numerous processes.

8.4.3.1.3 Coordination of Government Responsible Technical Issue Resolution

The Waterfront CHENG is responsible and accountable for all engineering, technical work and technical decision-making that occurs on the waterfront. This includes the resolution of technical issues that are the sole responsibility of the government. For government responsible waterfront issues related to design and integration, the Waterfront CHENG coordinates resolution with the SDM. For minor non-conformances, the Waterfront CHENG is responsible for the disposition of government issues. For major non-conformance, the waterfront CHENG forwards the non-conformance to the Program Manager and provides a copy to the SDM and appropriate TWHs. The Waterfront CHENG is responsible for coordinating data collection and assessing the results with the appropriate government agencies, including NSWCs, NAVSEA, PEOs, and government test teams. The CHENG provides all formal documentation with each major non-conformance submittal.

8.4.3.1.4 Resolution of Technical Issues Involving Other Regulatory Bodies

An adjudication process is necessary to resolve technical conflicts between SUPSHIP and other regulatory authorities (e.g., ABS, Department of Energy, SEA 08). When conflicts arise, SUPSHIP and the affected regulatory body must either come to a mutual agreement to technical resolution or raise the issue to the appropriate higher level authority for further adjudication.

When technical adjudication is necessary, SUPSHIP is responsible for:

a. Defining the technical issue and identifying all contractual requirements, such as Ship Contract, Ship Build Specifications, ABS NVR and HSNC, Military or Commercial Standards, etc.

b. Identifying the stakeholders that will be required to properly adjudicate the technical issue (e.g., regulatory body, SEA 05 SDM and TWHs, Program Office).

c. Making arrangements for the technical discussion among SUPSHIP and the appropriate stakeholders.

d. Documenting summary of the adjudication discussion, including technical agreements made and any required actions.

e. Arranging for any follow-on technical discussions and tracking to closure all actions required for the resolution of the technical issue.

f. Ensuring appropriate documentation, such as waivers, deviations, Engineering Change Proposals (ECPs), build specification changes, or other contractual agreements

(e.g., Justification for Technical Determination (JTDs) used on the LCS programs have been processed to contractually document the technical resolution).

g. Raising the technical issue to the appropriate higher level authority (e.g., NAVSEA 05) if adjudication at the SUPSHIP level cannot be achieved.

8.4.3.1.5 General Problem Resolution and Technical Support

Many times the contractor or other SUPSHIP departments require Engineering Department assistance in general problem resolution. These engineering assists are tasks which should be documented and tracked to resolution. The Technical Support Management (TSM) database (or equivalent) database is utilized to initiate and track engineering action on requests for engineering assistance from other SUPSHIP departments.

Significant and unusual events may be investigated via a critique process. The purpose of a critique is to determine whether an unusual occurrence is systemic in nature, to identify problems which contributed to the occurrence, to attain the root cause of the incident, and to identify immediate, short-term and long-term actions to recover and preclude reoccurrence. Reference (m), Uniform Industrial Process Instruction (UIPI) 0900-453, Critique and Problem Analysis Matrix Processes, provides a procedure for conducting critiques. Local procedures are often written to adapt the UIPI to a particular organization.

8.4.3.2 Oversight of Shipbuilder Production and Engineering Procedures

Construction of Navy ships requires an enormous quantity and scope of shipbuilder processes and procedures. As dictated by individual shipbuilding contracts, selected contractor's procedures are formally submitted to the Navy for review, comment and approval, while others are written and maintained by the shipbuilder with no formal government involvement.

NAVSEAINST 5400.95F** describes the roles and responsibilities of the Waterfront CHENG. Among these is the responsibility for setting local technical standards, providing technical expertise and ensuring safe and reliable operations. In order to carry out this responsibility, each SUPSHIP has developed a unique set of internal documents (operating procedures, work instructions, etc.) to formalize the oversight process. This process may include both formal and informal document reviews and audits, and may require reporting the findings to the shipbuilder.

8.4.3.3 Technical Support for Certification Programs and Systems (SUBSAFE, Fly-by-Wire, DSS/SOC, etc.)

The purpose of this section is to describe the involvement of SUPSHIP Engineering in support of Certification Programs which are critical to ship safety and performance. The three programs discussed in this section are unique to submarines: Submarine Safety (SUBSAFE), Deep Submergence System Scope of Certification (DSS-SOC) and Fly-By-Wire Ship Control System (FBWSCS). The Critical Safety Item (CSI) program is applicable to all platforms and is addressed in section 8.4.3.3.1.

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The governing documents for each certification program are as follows:

- SUBSAFE - Submarine Safety (SUBSAFE) Requirements Manual, NAVSEA 0924-062-0010 (reference (n))
- DSS-SOC - System Certification Procedures and Criteria Manual for Deep Submergence Systems, NAVSEA SS800-AG-MAN-010/P-9290 (reference (o))
- FBWSCS - Submarine Fly-By-Wire Ship Control Systems Requirements Manual, NAVSEA T9044-AD-MAN-010 (reference (p))
- CSI - Naval Ships' Critical Safety Item Program, Non-nuclear, NAVSEAINST 9078.1 (reference (q))

These requirements documents generally define the certification requirements and the scope and intent of the certification requirements on a program level. In addition to the requirements manuals, each program employs various implementation documents which define discreet boundaries and responsibilities for all organizations involved.

The SUBSAFE Certification Program is designed to provide a high level of confidence in the material condition of the SUBSAFE boundary and in the ability of the submarine to prevent flooding and recover from flooding and control surface casualties. The Submarine Safety (SUBSAFE) Requirements Manual prescribes technical and administrative requirements along with procedures that must be followed in order to SUBSAFE certify a submarine. It requires all work within the SUBSAFE Certification Boundary be performed, documented and controlled as required by the manual. The SUBSAFE certification program encompasses all aspects of submarine procurement from design through life cycle maintenance, major delineations being design, initial certification and certification maintenance. SUPSHIP has specific responsibilities in each of these phases with some of them carried out by the SUPSHIP Engineering Department. Engineering Department responsibilities in the design phase include specification and drawing review for incorporation of all program technical and certification requirements and SUBSAFE Design Review (SSDR) obligations as delineated in the SUBSAFE Design Review Procedures Manual, NAVSEA 0941-041-3010. During initial certification, which includes the construction and test and trials stages, SUPSHIP Engineering participates in the resolution of technical and certification issues, resolves or contributes to the resolution of SUBSAFE departures, reviews drawing changes for incorporation of SUBSAFE requirements as necessary, participates in SUPSHIP and NAVSEA ship certification audits, witnesses SUBSAFE testing on a case basis, reviews and forwards (to NAVSEA) shipyard/ship specific design review reports, and reviews contractor responses to audit findings. In order to recommend to the Supervisor that a ship is ready to be certified for fast cruise or unrestricted operations, the Engineering Department follows a discreet process to insure that all required technical work is complete and tested or correctly deferred. Technical work includes, but is not limited to, departures, deferrals, drawing changes, test forms, test data, re-entry control testing, logistic technical data, URO/MRC inspections, Corrective Action Reports (CARs), and Selected Record Data (SRD).

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Engineering Department personnel also perform an aggregate review of all deferrals and/or temporary departures.

Some SUPSHIP Engineering Departments staff a SUBSAFE position to manage SUBSAFE issues, perform audits, lead SUBSAFE certification evolutions and key events, provide SUBSAFE training, and write and maintain department instructions. Another construct includes the command SUBSAFE Program Director (SSPD) as a direct report to the Engineering Department Head, the CHENG.

The DSS-SOC Program is a quality program that ensures personnel safety of Special Operations Forces (SOF), Navy SEALs, operators, and occupants of a Deep Submergence System. The “Deep Submergence System” is defined as those systems and components which, when working together, provide the capability for manned underwater operations. The “Scope of Certification” of a Deep Submergence System is comprised of those systems, subsystems and components and the associated maintenance and operational procedures required to provide maximum reasonable assurance that DSS personnel are not imperiled during system operations. The program provides maximum reasonable assurance that an accident will not occur and that DSS personnel may be recovered, without injury, in the event of an accident.

Like the SUBSAFE program, the DSS-SOC certification program encompasses all aspects of submarine procurement from design through life cycle maintenance. The responsibilities of the SUPSHIP Engineering Department are equivalent but not identical to those described above for the SUBSAFE program.

The FBWSCS program is unique to Virginia and Seawolf Class submarines. The Submarine Fly-By-Wire (FBW) Ship Control Systems Program was established to augment traditional certification processes by specifically addressing the software driven functionality and electronic components that host and process that software. The program provides administrative and technical requirements for the design, development, test, initial certification, and maintenance of submarine fly-by-wire ship control systems. The program is designed to ensure that the submarine fly-by-wire ship control system, including hardware and software, operates safely for the initial system design and all subsequent changes. Adherence to requirements provides maximum reasonable assurance that the Ship Control System (SCS) will not cause a casualty or prevent ship recovery from a flooding or control surface jam casualty. Again, the responsibilities of the SUPSHIP Engineering Department are similar to the certification systems described above. The Engineering Department includes a specific FBWSCS technical point of contact with expert knowledge of the systems and certification requirements.

8.4.3.3.1 Critical Safety Item (CSI) Source Approval

The CSI program was established to comply with Section 130 of the John Warner National Defense Authorization Act of 2007 and includes responsibilities for SUPSHIP, and specifically, the Waterfront CHENG. A Critical Safety Item (CSI) is any ship part, assembly or support equipment containing a critical characteristic whose failure, malfunction or absence may cause a catastrophic or critical failure resulting in loss or serious damage to

the ship, or unacceptable risk of personal injury or loss of life. NAVSEAINST 9078.1, Naval Ships' Critical Safety Item Program, Non-Nuclear, provides command level policy, responsibilities, coordination, and awareness in procurement of Critical Safety Items (CSIs) as well as modification, repair and refurbishment (overhaul) of ships' non-nuclear CSIs. Reference (r), NAVSEAINST 9078.2, Naval Ships' Critical Safety Item (CSI) Program Technical Requirements, establishes the technical requirements, procedures and processes for implementing the Naval Ships' CSI Program, as required by NAVSEAINST 9078.1. This instruction specifies requirements, procedures and responsibilities for the determination of items as CSIs, CSI identification, CSI specification/standard and drawing review, source approval, sourcing and provisioning, and oversight of CSIs.

When CSI is contractually invoked, SUPSHIP responsibilities include:

1. Ensuring CSIs or services for repair, maintenance, modernization, and overhaul of CSIs are provided by approved sources by accessing the PDREP CSI database. When CSIs or services are exclusively manufactured, performed or produced by a prime contractor, SUPSHIP will ensure the prime contractor is an approved source. The prime contractor may be approved by the warranted SUPSHIP Waterfront Chief Engineer.

2. Ensuring prime contractors or shipbuilders (new construction) have a Supplier Approval Process adequate to support the NAVSEA CSI Program, or the shipbuilder must obtain CSIs or services for CSIs from a Navy approved source. This does not override the responsibility of prime contractors and shipbuilders to conduct oversight of their sub-tier sources.

3. Approving/disapproving potential offerors as CSI sources in accordance with enclosure (5) of reference (r), NAVSEAINST 9078.2, under the Chief Engineer's authority as a TWH.

4. Ensuring technical documentation and material ordering documents indicate items that are CSIs.

5. Conducting Procurement Quality Assurance (PQA) oversight of contracts to ensure local purchase CSIs or services for repair, maintenance, modernization, and overhaul of CSIs are with approved sources.

6. Initiating Letters of Delegation (LODs) as recommended in the PDREP CSI database by the TWH or as determined locally.

8.4.3.4 Technical Support for Key Events

The purpose of this section is to describe the involvement of SUPSHIP Engineering in support of Key Events. A Key Event is a milestone during ship construction or repair when the ship is certified ready for a particular evolution. Key events can be a major milestone such as undocking, crew certification or sea trials, but can also mark less visible events such as the start of fan room load out or the start of main storage battery installation.

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Key events are logically sequenced and require the ship's configuration to be at a specific level of completion in order to accomplish that particular key event. All work that supports a key event is tracked until completion or deferral. Within the SUPSHIP Engineering Department are Project Engineers dedicated to the technical support of specific ships. They also assist in monitoring selected work items to ensure the shipbuilder is making adequate progress to support key events. Meetings, discussions with Ship's Force and the ship's manager, and routine reports are some of the methods used for ensuring that required work is visible and scheduled for completion. Project engineers may utilize the shipbuilder's database to track outstanding shipbuilder responsible work, and an internal database, such as the Technical Support Management (TSM) system, to track outstanding government responsible work. The outstanding work required for a particular key event remains on the database until completion or deferral.

Shipwork and testing evolutions are split into groups and related to each other according to their impact on key events. If all work required to be accomplished prior to a key event cannot be completed to support the key event, there is a system to analyze the outstanding work and its impact on the key event. Some deferred work requires evaluation by the Engineering Department to make a determination if it is safe to proceed to the key event without completion of the work.

8.4.3.5 Provide Project Engineering Support

The Stewardship competency delineated in NAVSEAINST 5400.95F** requires the Waterfront CHENG to "Provide engineering support to project teams while maintaining a matrix core engineering staff." As described in section 8.2, SUPSHIP Engineering is a matrix organization which supports multiple project offices. In order to best serve each project office, the engineering organization employs dedicated Project Engineers (PE). PEs do not have a direct reporting chain of command to the project office; however, the PE functions as a dedicated technical resource and advocate for the assigned project office. PEs are designated for both new construction and repair projects; the functions of each differ slightly to align with governing processes. PEs may be delegated limited technical authority, but must work in conjunction with branch heads, division heads and/or the CHENG in resolution of all technical issues (i.e., not to work independent of the technical resources of the Engineering Department). PEs can be permanently appointed or assigned on a rotating basis.

Primary PE duties and responsibilities include:

- Acting as the primary technical point of contact for all waterfront matters associated with assigned programs
- Coordinating the review, evaluation and approval efforts for technical documents supporting their project
- Assessing the shipbuilding contractor's assignment of open work items to applicable key events

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- Advising the CHENG in the allocation of Engineering Department resources in support of shipyard work schedules and key events and resolution of emergent technical issues (including planning for off-shift, weekend support)

- Participating in contractor team review efforts in order to determine if technical problem resolution concepts reflect the best possible options within project limitations

- Attending project/program status meetings such as Plan-of-the-Day and projects briefs and briefing the CHENG on shipyard work status

- Attending contractor critiques to assess impact/risk to associated project work in yard

- Assessing the risk of technical items affecting their assigned program and resolving accordingly

- Reviewing the Availability Work Package (AWP), where applicable, prior to commencement of an availability to identify and understand work scope, potential technical difficulties and Engineering Department impact

8.4.3.6 Technical Support for Docking and Ship Movement Events

Reference (s), Navy Regulations, Articles 0871 “Responsibility for Safety of Ships and Crafts at a Naval Station or Shipyard,” and 0872 “Ships and Crafts in Drydock” contain the Navy policy for ships and craft drydocking and undocking. Specifically, the regulations state that the docking officer will take charge of the evolution at the point the vessel enters the drydock (vessel reaches the dock sill and the ship is pointed fair for entering the drydock) and will complete the docking, remaining in charge until the ship has been properly landed, bilge blocks hauled and the dock pumped down. For undocking, the docking officer will assume charge when flooding the dock preparatory to undocking is started, and will remain in charge until the extremity of the ship last to leave the dock clears the sill and the ship is pointed fair for leaving the drydock. Although the shipbuilding contractor is responsible for the docking and undocking evolutions of naval ships during construction or repair, the regulations also assign responsibility to SUPSHIP to ensure that the contractor’s facilities, methods, operations, and qualifications meet the standards of efficiency and safety prescribed by Navy directives. In order to do this, the Supervisor must have military and/or civilian personnel specifically trained and qualified as a Docking Observer to check and verify the contractor’s facility and mode of operation during docking, undocking and launching of naval vessels. The SUPSHIP Engineering Department supports dry dock operations by providing technical expertise for the inspections of docks and blocking and by supporting the Docking Observer during the preparation for and execution of docking/undocking of Navy assets.

Specifically, the SUPSHIP Engineering Department supports the Docking Observer by providing a Naval Architect to perform the following functions:

a. Provides technical review of contractor-prepared docking drawings and associated data for each dry docking evolution. Where deviations from naval ship docking drawings exist, ensure that such deviations are justified and are technically sound.

b. Provides technical support to the Quality Assurance (QA) Department Process Control Division.

c. Evaluates the contractor's information on block clearances and performs a review of the contractor's computations dealing with tank liquid load status, list, trim, and the expected ship's stability condition at lift-off.

d. Verifies that the contractor's stability calculations are correct by formal memorandum to the Docking Observer for the docking/undocking of surface ships.

e. Ensures that the provisions of reference (t), Naval Ships Technical Manual Chapter 997, S9086-7G-TM-010/CH-997, "Docking Instructions and Routine Work in Drydock" are carried out with respect to docking drawing changes necessary as a result of work accomplished during the dry dock period.

f. Performs technical review of the Docking Report (NAVSEA forms 9997/1 through 9997/5, as applicable) for each undocking.

g. Provides on-site assistance during docking and undocking evolutions.

8.4.3.7 Oversight of Shipbuilder's Module Transportation and Ship Movement Facilities

In the execution of Navy shipbuilding contracts, shipbuilders employ facilities to construct and transport Navy assets. The shipbuilder is responsible to provide the assets required to transfer ship sections, modules, components, fixtures, and loose material between various facilities and locations. These assets may be shipbuilder owned or leased. Due to the magnitude, complexity, size, and weight of the various items to be transferred, the shipbuilder utilizes heavy lift transport equipment for land and sea transport. Because these transports are high-risk evolutions, SUPSHIP Engineering is responsible for:

- Ensuring that all equipment used in the transfer process is certified to the standards of the appropriate classification society, e.g., USCG or American Bureau of Ships (ABS)
- Monitoring the transport operation
- Monitoring maintenance requirements periodically
- Overseeing major modifications to contractor equipment
- Participating in major ship section moves (as defined by local shipyard procedures)
- Conducting technical assessment of emergent situations

Surveillance and inspections are conducted during transfer or transport operations and may include SUPSHIP approval of some process steps. The amount of direct oversight is determined by the risk involved in the evolution. SUPSHIP Engineering may also be present for classification society and shipbuilder inspections and surveys. Inspections of weather protection devices or systems may be conducted prior to shipment. Scheduled and ad hoc audits are performed to ensure adherence shipbuilder and classification/certification society governing documents and preventative maintenance requirements. SUPSHIP Engineering will work with the shipbuilder to ensure shipment schedules are published and executed to support construction schedules. SUPSHIPs will develop local processes and procedures as necessary to accomplish this oversight.

8.4.3.7.1 Special Lift Oversight

SUPSHIP may oversee and inspect any lift performed at contractor facilities. Lifts may be chosen for inspection through random sampling, but complex, heavy or high risk lifts may be singled out for oversight as well. Critical aspects for overseeing a contractor-executed lift are:

- All relevant drawings and documentation may be subject to review and approval by SUPSHIP. Special consideration should be given to loading conditions of cranes, critical stages of the lifts and proper welding procedures.

- Supporting calculations may be required as part of the documentation of any lift. These calculations will be broken down into three broad categories: unit structure calculations, calculations for temporary supports (lifting padeyes, roll bars, contact points, etc.) and rigging calculations (for spreader bars, cable bridles, etc.).

- The SUPSHIP Engineering Department should provide the findings of its review to the Quality Assurance team, making particular note of any elements of the lift that require attention. Findings which result in a concern for lift adequacy or safety will be provided to the contractor for corrective action.

8.4.3.8 Shock Installation Inspection Support

The SUPSHIP Engineering Department has the expertise to contribute to essential phases of shock hardening of Navy ships. Shock hardening is the process by which ship structure, equipment or systems are made resistant to the acceleration loadings by noncontact underwater explosions. Reference (u), NAVSEAINST 9072.1A**, Shock Hardening of Surface Ships, specifies the role of a SUPSHIP which includes:

- Enforce the ship contact shock specifications.

- Serve as NAVSEA's agent for review and/or approval of shock qualifications and reports submitted by the shipbuilders.

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- Conduct specialized shock qualification and installation technical inspections of shock hardened ships during all phases of construction. Verify that equipment is mounted aboard a ship in a manner consistent with its shock qualification.

- Participate in pre-shock trial planning and technical inspections and in the actual conduct of the shock trials.

- Issue shock qualification approval letters for Contractor-Furnished Equipment (CFE).

8.4.3.9 Coordination and Support for Systems Certification

SUPSHIP Engineering will assist with certification of equipment and systems identified within the applicable contract. The specific level of support will vary depending on the specific system certification. In general, support includes performing inspections and providing an independent technical assessment prior to the Certification Agent inspection. System deficiencies are identified to the contractor in advance of the inspection and SUPSHIP Engineering works with the Project Office and the contractor for resolution prior to the Certification Agent inspection. SUPSHIP Engineering coordinates the Certification Agent inspection with the Project Office and contractor to ensure the equipment and systems are ready for inspection and the inspection is scheduled in time to meet the ship's construction schedule. During Certification Agent inspection, SUPSHIP Engineering accompanies the certification inspector and determines whether deficiencies are contractor or government responsible. Post inspection, SUPSHIP Engineering follows up and performs system inspections to confirm correction of deficiencies. SUPSHIP Engineering is responsible for reviewing and resolving contractor disputes to ensure adherence to technical requirements. For government responsible items, SUPSHIP Engineering provides recommendations for correction to the Program Office.

8.4.3.10 Technical Support for Industrial, Environmental and Safety Compliance Issues

In accordance with FAR 42.302, SUPSHIP, as the contract administrator, is required to ensure contractor compliance with contractual environmental and safety requirements, and to monitor contractor environmental practices for adverse impact on contract performance or cost. SUPSHIP Engineering provides environmental technical assistance, as needed, and provides support to QA in monitoring contractor compliance to contractual requirements for the delivery or use of environmentally preferable products, energy-efficient products, products containing recovered materials, and bio-based products.

SUPSHIP Waterfront CHENGs are responsible to ensure safe and reliable operations throughout assigned activities as follows:

- Ensure that safety and reliability requirements are addressed in all technical processes.

- Act as the certification authority when required by a specific certification process.

- Provide approvals for CSI component suppliers (when contractually invoked).
- Provide leadership and technical support to MISHAP investigations and resolutions in accordance with NAVSEAINST 5400.95F** and reference (v), OPNAVINST 5102.1D, Navy & Marine Corps Mishap and Safety Investigation, Reporting, and Record Keeping Manual in support of the SDM and PM team.
- Act as the technical focal point to lead NAVSEA's response for significant incidents (e.g., SUBMISS/SUBSUNK Message, Flooding, Collision, Facilities Incident, etc.).

8.4.3.11 Review of Integrated Logistics Support (ILS) Products

As described in the Integrated Logistics Support chapter of this manual (Ch 14), the role of SUPSHIP has evolved into more oversight than direct participation in logistics. The amount of oversight provided is governed by the new construction contract and the extent of the transfer of material functions to the NAVSUP Fleet Logistics Center.

New construction contracts may require shipbuilders to produce logistics technical data (LTD) in support of platform component and system operational and maintenance requirements. LTD consists of items such as equipment technical manuals, system manuals, operating instructions, maintenance manuals, and for submarines, may also include certification system manuals.

Contractual documents (such as LTD Management Procedures Manual) specify program structure and responsibilities in the development of LTD. SUPSHIP Engineering participates in LTD development in its contractor oversight role in accordance with FAR 42.302 and in a support role to the Ship Design Manager (SDM), in accordance with NAVSEAINST 5400.95F**.

The approval level of the various LTD products is specified either in the contract or in an overarching sub-tier document. For those documents where SUPSHIP is the approval authority, thorough reviews will be conducted. For other LTD, SUPSHIP may review and comment per the Engineering Management Plan as part of its support to the SDM.

8.4.3.12 Coordination of Technical Authority for Alteration Installation Teams (AITs)

The Waterfront CHENG is responsible and accountable for all engineering, technical work and technical decision-making that occurs on the waterfront. This includes the responsibility and accountability for the technical oversight and requirements compliance for all work by any activity, including AITs, accomplished on the waterfront.

When SUPSHIP is acting as the Naval Supervising Activity (NSA) during a Post Shakedown Availability (PSA) or other post-delivery availability, the Waterfront CHENG and LMA may jointly prepare a MOA to clarify the responsibilities of all participating activities involved in the installation of alterations by AITs. Technical Authority responsibilities will be clearly defined in the written MOA, including the authority to approve minor deviations and waivers to the

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design. MOAs will be approved and signed by all applicable activities prior to the AIT commencing the alteration. Reference (w), NAVSEA technical specification TS9090-310F, Alterations to Ships Accomplished by Alteration Installation Teams, provides additional information.

8.4.4 Test

Per NAVSEAINST 5400.95F**, the SUPSHIP CHENG is responsible for the oversight of the technical aspects of testing. This includes ensuring that the processes and procedures encompassed in the test programs meet the invoked requirements and provide the basis for determining the material condition and readiness of the ship for construction key events/milestones, sea trials and fleet operations. Ultimately, the test program provides SUPSHIP and other stakeholders with objective quality evidence of the material condition of the ship and the basis for certifications.

The SUPSHIP Engineering Department works with the SUPSHIP Project Offices and Quality Assurance Department to ensure proper oversight of the test program and that contractor and/or government testing is accomplished in accordance with the contract requirements and specifications. There is no standard approach or organizational structure across the SUPSHIP community to accomplish test program oversight. The Engineering Department may establish dedicated test program personnel, branches or divisions to fulfill its responsibilities for test oversight or may use the specific Engineering Department subject matter experts, in combination with expertise resident in the Project Offices or Quality Assurance Department. The Engineering Department is responsible for the technical aspects and adequacy of the test program regardless of the method chosen to perform the oversight of the test program.

The major elements of test program oversight accomplished by SUPSHIP Engineering Departments are listed below and discussed in more detail in the following sub-sections:

- Technical Authority Oversight
- Review of Test Requirements, Procedures, Data, and Problem Resolutions
- Test Witnessing
- Test Group/Test Team Membership
- Test and Key Event Certifications

8.4.4.1 Technical Authority Oversight of Test Programs

The Engineering Department leads the SUPSHIP efforts in the technical oversight of the shipbuilder's test program. The SUPSHIP CHENG is responsible for the technical adequacy of the test program and testing as the warranted local technical authority. As ships systems and components become increasingly more complex, integrated and interdependent, test programs must be developed and routinely updated to ensure ships' design and construction

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meet specifications. The development of testing requirements, evaluation of component and system performance, resolution of testing problems, and the adjudication of non-conforming conditions are inherently engineering functions under NAVSEA's technical authority. All occurrences of nonconformance must be adjudicated through a Warranted Technical Authority and copies must be provided to the SUPSHIP CHENG/Engineering Department when other activities adjudicate the nonconformance.

8.4.4.2 Review of Test Requirements, Procedures, Data, and Problem Resolution

Engineering will lead SUPSHIP review and approval of contractor and government test procedures and will ensure that appropriate technical documentation is collected. Test documentation includes test procedures, test change proposals, revisions, and reports. Test documentation will be reviewed for technical adequacy and contract compliance. During test execution, Engineering assists with test problem resolution and reviews and approves Test Problem Reports. Test documentation tracking (progressing and statusing), Test Metrics (call outs, etc.) and Configuration Management (Test Index, etc.) are not necessarily core Engineering functions. Engineering responsibilities are summarized below:

- Review and approve initial Test Procedures, Revisions and Change Proposals
- Review and approve Test Problem Reports
- Review and approve Test Reports

Note: The number of test procedures, the type of test problems and the number of test reports reviewed and/or approved is subject to programmatic requirements.

8.4.4.3 Participation in Test Witnessing

Test witnessing responsibilities vary from program to program and can be shared among Engineering, QA, the Project Office, and/or dedicated reimbursably-funded test teams. Engineers may participate in sea trial test oversight acting as Mock INSURV at Builder's Trials or in supporting INSURV at Acceptance or Final Contract trials.

8.4.4.4 Test Team/Test Task Group

The Test Team/Test Task Group conducts observations of the contractor's readiness to execute testing, and assesses objective quality evidence (OQE) from the Contractor's Quality Management Program. The primary purpose of this is to ensure that the ship, its equipment and systems are ready for all phases of shipboard testing, and that prerequisites have been met. The Test Team/Test Task Group provides oversight of Government-conducted shipboard testing of Government-Furnished Equipment (GFE), including review of OQE. SUPSHIP and contractor personnel must closely coordinate their efforts when managing the Shipboard Test Program in accordance with the contract. The Test Team/Test

Task Group is responsible for test program management using test metrics, test progressing and test completion to facilitate test planning and scheduling.

When reference (x), S9092- AC-ADM-010/ITPAM, Industrial Test Program Administration Manual (ITPAM)] or reference (y), S9002-AK-CCM-01 0/6010, Industrial Ship Safety Manual for Submarines] is contractually invoked, a Joint Test Group is established as described below. For programs that do not invoke ITPAM, it is vital that equivalent testing and test group requirements are incorporated by each program to provide visibility to the SUPSHIP Engineering Department, as well as other SUPSHIP departments. The respective Government test teams/test groups will ensure all technical issues are identified to the SUPSHIP Engineering Department for resolution.

The Joint Test Group (JTG) is a term used to describe collectively the persons assigned by their parent organizations to make required local approval actions for a test program. Note that in a private shipyard, the CTE is staffed by the shipbuilder and not controlled by the CHENG. The JTG facilitates local approval of documents for administration, performance and acceptance of testing and communications among the responsible organizations. JTG decisions are to be documented by the shipbuilder, with concurrence by all members of the JTG, and distributed to all JTG members.

JTG membership will consist of one member, designated in writing, from each of the following organizations:

a. Shipbuilder - the CTE for that ship (or area of cognizance for that ship), who serves as chairman unless chairmanship is appointed to another individual by the senior shipyard manager responsible for testing

b. Ship's Force (designated by ship's commanding officer). For new construction ships where systems are not yet transferred, Ship’s Force plays an advisory role in meetings of the JTG

c. SUPSHIP (private shipyard availabilities)

d. Other organizations that have significant work and test may also assign a member as agreed upon by the JTG

The SUPSHIP JTG representative is responsible for:

a. Assigning a member and one or two alternates to the JTG, in writing

b. Providing independent oversight of private shipyard testing and ship safety for NAVSEA

c. Directing that evolutions be stopped if testing or operations are not considered to be progressing in a safe manner and in accordance with applicable procedures

d. Auditing and certifying completed test procedures, when required

8.4.4.5 Test and Key Event Certifications

Certification is the culmination of the process by which Engineering and other SUPSHIP departments determine that a ship is prepared for a key event or ready to begin major testing evolutions. Key events to be certified will vary by program and hull, and may include: Flood Dock, Undock (or Launch), Initial Criticality (or Reactor Plant startup), Engine Light-Off, Dock Trials, Fast Cruise, Sea Trials, and Delivery. A major portion of the Objective Quality Evidence (OQE) that supports this determination is provided by the ship test program and directly involves the JTG/Test Teams. The Engineering Department will provide oversight as described in 8.4.4.2 through 8.4.4.4 to confirm the technical adequacy of OQE used to support certifications.

Major Ship Testing evolutions and Key Events are milestones in the ship construction and/or repair schedule. Each one marks a transition from one phase of construction/repair to the next and eventually culminates in work completion, system/integrated systems level testing and eventually, delivery to the fleet. By associating a Major Testing evolution or Key Event to each work item in the schedule, the prime contractor can schedule and focus the efforts of the trades to complete the work required to support the subsequent shipboard testing (i.e., work to test strategy). Engineering will participate in establishing technical requirements and identifying entrance criteria for Key Events. The JTG/Test Team is responsible for determining the shipboard material conditions and validating the achievement of pre-requisite testing necessary to allow each test/event to commence and complete without delay and risking personal injury or equipment damage. This validation includes the review of completed tests forms, partially completed test forms and outstanding work/deficiencies by the JTG/Test Team. The purpose of this test and Key Event certification process is to provide reasonable assurance, based on the JTG/Test Team assessment, that the material condition of the ship's systems and components is satisfactory to support the upcoming Key Event or testing evolution. This test and Key Event certification feeds into the overall certification process for the ship.

The overall certification process normally requires that each major department conduct a review of each facet of its oversight functions by evaluating outstanding internal and external commitments/actions, quality issues (program and cross program), incomplete work and testing, and non-conformance adjudication. The departments must agree that there are no identified items that could impact the ship's ability to proceed through the Key Event and that the work was performed in accordance with the requirements of the invoked specifications. Each department has independent responsibilities that, when complete and assembled as a whole, provide this assurance. Additionally, the level of assurance necessary for some certifications (maximum reasonable assurance) may require that specific internal and external audits and inspections be performed that are "over and above" the normal and routine quality oversight functions. SUBSAFE, Fly-By-Wire and DSS-SOC are examples of special programs that have specific NAVSEA requirements that must be met to achieve "maximum reasonable assurance" for certification. These additional actions are required to gain assurance of the adequacy and accuracy of the contractor's readiness preparation.

8.4.5 Delivery

8.4.5.1 Delivery Certification (Conventionally-Powered Ships)

Certification of Navy ships in new construction is initiated at contract award. It is the responsibility of SUPSHIP to ensure the design and construction comply with contractual requirements and to actively participate in any changes to the design or technical requirements. This includes interpretation of the requirements as it supports the design products. As milestones and key events are reached in the construction process, SUPSHIP Engineering will ensure the construction follows the design and meets requirements without conflicts. Any deficient areas will be documented using various tracking systems, Corrective Action Reports (CARS) or Trial Cards. As the ship reaches a completed status, testing begins and SUPSHIP Engineering will ensure test requirements are followed and met.

When the ship is substantially complete, the ship will undergo a series of sea trials beginning with Builder's Dock Trials, Builder's Sea Trials and followed by Acceptance Trials with the Navy's Board of Inspection and Survey (INSURV), in accordance with reference (z), INSURVINST 4730.3, Trials of Surface Ships. Prior to conducting sea trials, per NAVSEAINST 5400.95F**, the SUPSHIP CHENG will support the ship's "safe for sea" material readiness assessment. SUPSHIP Engineering participates in Mock-INSURV and INSURV trials by conducting pre-trial inspections, test witnessing (as required), providing technical/risk assessment of system readiness and writing trial cards before and during sea trials. Following trials, SUPSHIP Engineering also participates with required "open and inspects" as well as investigating trial cards screened to engineering for a review.

All open work and tests will be documented on the DD250 at delivery in the form of trial cards, Corrective Action Reports (CARS), open Engineering Change Proposals (ECPs), or other contractual documents. The DD250 will identify and track the status of the ship construction after delivery. SUPSHIP is responsible for maintaining this document as open work items and testing are completed by the shipyard. Final inspections will verify the ship is ready for Ship's Force to take custody and move aboard. At this point the ship will complete Light-Off Assessment (LOA) and Ship's Force will be authorized to operate its systems. All work should be complete at this point or determined that it can be deferred to Post Shakedown Availability (PSA) to be completed after sail away. The ship will then be certified based on this analysis and documentation by SUPSHIP.

8.4.5.2 Delivery Certification (Nuclear-Powered Ships)

Certification of nuclear-powered naval vessels is an iterative process, bringing together multiple facets of the construction process, leading ultimately to delivery certification. The processes and terminologies differ somewhat between submarines and carriers, but the concepts are basically equivalent. Certification generally occurs through the roll-up of milestones and key events in three major areas: material certification, work completion certification and crew certification. Additional information is provided by reference (aa), OPNAVINST N9080.3G, Procedures for Tests and Trials of Naval Nuclear Powered Ships Under Construction, Modernization, Conversion, Refueling and Overhaul.

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Material certification happens at the component level and is governed by various certification programs including Material Identification and Control for Piping Systems (MIC), Critical Safety Items (CSI), Submarine Safety (SUBSAFE) Certification, Deep Submergence Scope of Certification (DSSSOC), and Fly-By-Wire Ship Control System Certification (FBWSCS). These programs carry requirements such as certification of material properties, material marking and segregation, certification of non-destructive testing, etc., that insure the material condition of critical structure and critical systems and components meets specification requirements. The SUPSHIP Engineering role in these material certification systems is discussed in section 8.4.3.3.

Material certification supports certification of critical systems, but work completion certification addresses completion of both critical and non-critical systems. Certification of work completion occurs through work completion tracking, inspection and testing. Work is planned and tracked at the work package level. Work package completion rolls up to system and compartment completion, to module completion (depending on the overall construction process) and finally to full ship completion. Testing is integrated into the construction schedule and includes inspection, system integrity testing, intra and intersystem operational testing, and finally at-sea testing.

On nuclear-powered submarines and carriers, the ship's crew has an integral part in the roll-up to delivery certification. In order to commence crew training and certification, the crew begins to arrive on-site incrementally as much as two years prior to ship delivery. Both SUPSHIP and the crew are part of system/space turn-over from the contractor. This is referred to as the Operational Control (OPCON) transfer process. OPCON transfer is a sequential process with turnover of systems and spaces based on a certified completion which includes system and space inspections by the crew and SUPSHIP. The roll-up of OPCON transfers results in the key event "In Service," at which point the boat can be inhabited by the crew.

Each major area is segmented into milestones and key events and each milestone or key event requires certain work and/or testing to be complete. All work is married to a key event and tracked to completion in support of entering the key event. Incomplete work is reviewed for the technical adequacy of recoding it to a subsequent event.

The role of SUPSHIP Engineering in this process is to track and complete work items in support of milestones and key events. The Project Engineering function discussed in section 8.4.3.5 is key to the success of this effort. SUPSHIP Engineering performs both individual and aggregate assessments of deferred work items to insure adequacy of ship safety and performance. Both contractor and SUPSHIP databases must be reconciled to insure all work is either complete or technically deferred. In addition, the SUPSHIP may keep a checklist, similar to Appendix A of the DDGOS, to track completion of particular critical items. The Engineering Department has responsibility to certify completion of a subset of these items.

All of the aforementioned work results ultimately in certification to allow the ship to commence sea trials. A series of builder's trials are conducted to validate the operation of

systems under tactical conditions at sea. The amount and performance of each trial varies by program; however, all programs conduct a Navy's Board of Inspection of Survey (INSURV) trial. The INSURV trial determines the readiness of the ship to be accepted into the fleet. SUPSHIP Engineering participates in INSURV through preparation of pre-trial cards and participation in the sea trial itself. The recognition and identification of a discrepancy as a potential INSURV item is described in a memorandum submitted to the applicable Project Officer for evaluation and eventual delivery to the INSURV Board. Based on this evaluation the item may be retained, amended or canceled with appropriate feedback to the drafter. The Project Officer maintains a log of all items submitted. The log will constitute the index of deficiency items delivered to the Board just prior to the sea trial. During the trial, riders from SUPSHIP Engineering assist INSURV inspectors as needed to insure that legitimate trial cards are generated. Upon completion of the INSURV trial, all trial cards are categorized as Ship's Force, shipyard, design yard or government responsible. SUPSHIP Engineering reviews shipyard and design yard responses for adequacy and assists in closing government responsible cards when required. Upon completion of all sea trials, SUPSHIP Engineering will have approved or recommended approval on all at sea test forms and/or concurred to deferral of all outstanding work and testing to a later availability. Objective Quality Evidence (OQE) is critical to the ship certification process. OQE comes in various forms and provides the foundation for ship certification. SUPSHIP Engineering supports real time reviews and audits of OQE.

Based on work completion and assessment of OQE from construction, testing and sea trials, the Engineering Department, in addition to all other responsible SUPSHIP departments, makes a recommendation to the Supervisor on the readiness of the material condition of the ship for delivery.

8.4.6 Post-Delivery

[This section to be developed pending issuance of the pertinent NAVSEA instruction.]

8.4.7 In-Service Engineering Support

8.4.7.1 Ship Class Technical Issue Resolution

The primary conduit for NAVSEA In-Service Engineering Support regarding matters of design is through the NAVSEA In-Service Ship Design Manager. The New Construction Ship Design Manager and SUPSHIP CHENG have supporting roles and serve as secondary technical points of contact for crews with whom they have developed contacts during the building phase. Accordingly, it is important that communication on in-service related design issues be shared among the three parties.

The In-service SDM has a number of options available for resolving design issues, one of which is through tasking to the Planning Yard, which in some cases falls under the oversight responsibilities of a SUPSHIP Waterfront CHENG. The Waterfront CHENG has oversight responsibilities for the design products produced by the Planning Yard. Another option would be through special tasking routed via the New Construction SDM to the shipbuilder to

engage their vendors currently under contract to develop options to address observed component performance observed in the Fleet.

8.4.7.2 Planning Yard

In accordance with the reference (bb), SL720-AA-MAN-010, Fleet Modernization Manual, the Planning Yard is the engineering design agent for assigned classes of ships. Planning Yard responsibilities may be assigned to either a Naval Shipyard or a private shipbuilder. For new ship classes, the shipbuilder constructing a class of ships is often assigned as the initial Planning Yard for the class. Responsibilities of the Planning Yard typically include:

- Perform Ship Alteration (SHIPALT) design, engineering and drawing development
- Provide problem resolution for overhauling yards conducting SHIPALT installation
- Develop SHIPALT man-day and material cost estimates
- Maintain a central drawing file of all Master File Drawings
- Maintain configuration control
- Initiate new Ship Change Documents (SCDs) and provide information to the submitter for in-process SCDs
- Develop new and revise Ship Selected Record Data (SSRD)
- Respond to Liaison Action Requests (LARs)
- Develop test criteria or procedures and provide documents to validate successful installation

8.4.7.2.1 Oversee the Technical Adequacy of Shipbuilder's Planning Yard Products

Per NAVSEAINST 5400.95F**, contractor Planning Yards are part of the in-service SDM's engineering support network for nuclear-powered ships, and the SUPSHIP CHENG's engineering support network for non-nuclear surface ships. NAVSEA 04 defines responsibilities and functions and designates the Planning Yard within reference (cc), SL720-AA-MAN-030, Navy Modernization Process Management and Operational Manual (NMP-MOM).

As described previously, contractor Planning Yards may perform Engineering Agent functions when designated as an agent by the responsible SUPSHIP CHENG or In-Service SDM in accordance with NAVSEAINST 5400.111A**.

For Planning Yard contracts, the SUPSHIP CHENG has the same responsibility as described in 8.4.2. For Planning Yard technical products, SUPSHIP will:

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- Review contractor procedures to ensure requirements of the following references are addressed:
    - SL720-AA-MAN-010, Navy Modernization Process Management and Operations Manual (NMP-MOM)
    - Reference (dd), NAVSEA S9AA0-AB-GOS-010, General Specifications for Overhaul of Surface Ships (GSO)
    - Reference (l), COMFLTFORCOMINST 4790.3, Joint Fleet Maintenance Manual (JFMM)
    - Reference (ee), NAVSEA 0902-LP-018-2010, General Overhaul Specifications for Deep Diving SSBN/SSN Submarines
- Review SCDs, SIDs, SSRDs, LARs, and test procedures for compliance with contractor procedures and references (y) through (bb).

Appendix 8-A: Acronyms

ABS	American Bureau of Shipping
ACO	Administrative Contracting Officer
CAO	Contract Administration Office
CAR	Corrective Action Report
CHENG	Chief Engineer
CM	Configuration Management
CNO	Chief of Naval Operations
CSI	Critical Safety Item
DAP	Drawing Approval Procedure
DCMA	Defense Contract Management Agency
DD&C	Detail Design and Construction
DFARS	Defense Federal Acquisition Regulations Supplement
DFS	Departure from Specifications
DWO	Deputy Warranting Officer
ECN	Engineering Change Notice
ECP	Engineering Change Proposal
eDFS	Electronic Departure from Specifications
EMP	Engineering Management Plan
EQA	Engineering Quality Assurance
FAR	Federal Acquisition Regulations
FMA	Fleet Maintenance Activity
FMR	Field Modification Request

GSI	Government Source Inspection
HMR	Headquarters Modification Request
IPT	Integrated Product Team
JFMM	Joint Fleet Maintenance Manual
LAR	Liaison Action Requests
MAIT	Major Area Integration Team
MAT	Major Area Team
OEM	Original Equipment Manufacturer
OPCON	Operational Control
OQE	Objective Quality Evidence
PEO	Program Executive Office
RCOH	Refueling Complex Overhaul
SCN	Specification Change Notice
SCP	Specification Change Proposal
SDM	Ship Design Manager
SIB	Standards Improvement Board
SID	Ship Installation Drawing
SIT	System Integration Team
SSRD	Ship Selected Record Data
SYSCOM	System Commander
TAR	Technical Advisory Report
TWH	Technical Warrant Holder
VECP	Value Engineering Change Proposal

Chapter 9 – Contract Administration Quality Assurance Program (CAQAP)

Table of Contents

9.1 Introduction 9-5
9.1.1 Scope 9-6
9.1.2 NAVSEA Evaluations 9-6

9.2 Contractor Responsibilities 9-6
9.2.1 Quality Management System (QMS) / ISO 9001 9-7

9.3 SUPSHIP Responsibilities 9-7
9.3.1 CAQAP Responsibilities 9-8
9.3.1.1 Planning 9-8
9.3.1.1.1 Surveillance Plans 9-9
9.3.1.2 Document Review 9-10
9.3.1.2.1 Procedure Review (PR) Criteria 9-10
9.3.1.2.2 Technical Data Review Criteria 9-10
9.3.1.2.3 Documentation 9-11
9.3.1.3 Procedure Evaluation (PE) 9-11
9.3.1.3.1 Initial Evaluation 9-11
9.3.1.3.2 Continued Evaluation 9-11
9.3.1.3.3 Documentation 9-12
9.3.1.4 Product Verification Inspection (PVI) 9-12
9.3.1.4.1 Conduct of PVI 9-12
9.3.1.4.2 Documentation 9-13
9.3.1.5 Quality Audits 9-13
9.3.1.5.1 Internal Quality Audit 9-13
9.3.1.5.2 External Quality Audits 9-14
9.3.1.5.3 Contractor's Quality Program Audit (QPA) 9-14
9.3.1.5.3.1 QPA Procedure 9-15
9.3.1.5.4 Audit Documentation Requirements 9-16
9.3.1.6 Corrective Action 9-16
9.3.1.6.1 Corrective Action Request (CAR) 9-16
9.3.1.6.2 Classification of Defects 9-17
9.3.1.6.2.1 Minor Defect 9-17
9.3.1.6.2.2 Major Defect 9-17
9.3.1.6.2.3 Critical Defect 9-17
9.3.1.6.3 Types and Uses of CARs 9-17
9.3.1.6.3.1 Type A 9-17
9.3.1.6.3.2 Type B 9-17
9.3.1.6.3.3 Type C 9-17
9.3.1.6.3.4 Type D 9-18
9.3.1.6.3.5 Correction to Defect 9-18

9.3.1.6.3.6 Correction to Cause 9-18
9.3.1.6.3.7 CAR Issuance 9-18
9.3.1.6.3.8 Alteration Installation Team (AIT) CARs 9-19
9.3.1.6.4 Contractor Response Time 9-19
9.3.1.6.5 Contractor's Response 9-19
9.3.1.6.6 CAR Closeout 9-19
9.3.1.6.7 Documentation 9-19
9.3.1.7 Quality Data Evaluation (QDE) 9-20
9.3.1.7.1 Quality Data 9-20
9.3.1.7.2 Data Evaluation 9-20
9.3.1.7.3 Documentation 9-21
9.3.1.7.4 Common Critical Process Metrics 9-21
9.3.2 Maintaining SUPSHIP Quality Assurance Competency 9-23
9.3.2.1 ISO 9001 Training Requirements 9-23
9.3.2.1.1 Personnel Performing Quality-Related Functions 9-23
9.3.2.1.2 Personnel Performing Quality Audits 9-23
9.3.2.1.3 Personnel Assigned as Lead Auditor/Audit Team Leader 9-24
9.3.2.2 Coating Training Requirements 9-24
9.3.2.3 Electrical Cableway Training Requirements 9-24
9.3.2.4 Oxygen Cleanliness Training Requirements 9-24
9.3.2.5 Welding/Brazing Workmanship Training Requirements 9-25
9.3.2.6 Nondestructive Testing (NDT) Personnel Requirements 9-25
9.3.2.6.1 Non-Nuclear NDT Requirements 9-25
9.3.2.6.2 Nuclear NDT Requirements 9-26
9.3.2.7 Additional Training 9-27
9.3.2.8 Defense Workforce Improvement Act (DAWIA) Requirements 9-27
9.3.2.9 Training Records 9-27
9.3.3 Records 9-27
9.3.3.1 Technical Support Management (TSM) System 9-27
9.3.3.2 Retention and Disposal of Inspection Records 9-28
9.3.4 Establishing an Effective Quality Assurance Interface with Ship's Force 9-28
9.3.5 Trouble Reports 9-29

9.4 Government Contract Quality Assurance Actions at Source 9-29
9.4.1 Purpose 9-29
9.4.2 Exception 9-29
9.4.3 Requesting GCQA at Source 9-29
9.4.3.1 GCQA Criteria 9-30
9.4.3.2 Purchase Order Clause 9-30
9.4.3.3 Letter of Delegation (LOD) 9-31
9.4.3.4 Distribution of LODs 9-31
9.4.3.5 Documentation 9-31

9.5 Product Data Reporting and Evaluation Program (PDREP) 9-31

Appendix 9-A: Quality Assurance Glossary 9-32

Appendix 9-B: Corrective Action Request (CAR) 9-35

Appendix 9-C: Product Data and Reporting Program (PDREP) 9-37

Appendix 9-D: Samples of Common Critical Process Metric Reporting 9-40

Appendix 9-E: Acronyms 9-42

References

(a) Federal Acquisition Regulations (FAR)

(b) Naval Ships Technical Manual (NSTM) S9086-VD-STM-030/CH-631V3, Preservation of Ships in Service, Surface Ships/Submarine Applications

(c) Submarine Maintenance Standard MS 6310-081-015, Submarine Preservation

(d) Organization (ISO) 9001:2008, Quality Management System

(e) NAVSEAINST 9304.1D, Shipboard Electrical Cable and Cableway Inspection and Reporting Procedures

(f) MIL-STD-1330D(1), Precision Cleaning and Testing of Shipboard Oxygen, Helium, Helium-Oxygen, Nitrogen and Hydrogen Systems

(g) NAVSEA Technical Publication S9074-AQ-GIB-010/248 (TP248), Requirements for Welding and Brazing Procedure and Performance Qualification

(h) NAVSEA Technical Publication T9074-AS-GIB-010/271, Requirements for Nondestructive Testing Methods

(i) 0900-LP-001-7000, Fabrication and Inspection of Brazed Piping Systems

(j) NAVSEAINST 4355.7B, Nondestructive Test (NDT) Examiner Qualification and Requalification

(k) NAVSEA 250-1500-1, Welding Standard

(l) NSTR-99, Qualification Examination Requirements for Nondestructive Test Personnel

(m) MIL-STD 791, Certification for UT/VT of Lead Bond

(n) SECNAV M-5210.1, Records Management Manual

(o) NAVSEAINST 4700.17B CH-1, Preparation and Submission of Trouble Reports

(p) NAVSEAINST 9210.31B, Government Procurement Quality Source Inspection Actions for Shipyard Procured Material Under Cognizance of NAVSEA 08

(q) SECNAVINST 4855.3C, Product Data Reporting and Evaluation Program (PDREP)

Chapter 9 – Contract Administration Quality Assurance Program (CAQAP)

9.1 Introduction

This chapter establishes the CAQAP provisions for hardware and technical data in accordance with DoD and NAVSEA policy. It includes provisions for tailoring program implementation to the needs of each SUPSHIP based on contractual requirements.

The purpose of the program is to establish confidence in our shipbuilder's ability to deliver a quality product to the Navy. This is accomplished by establishing a comprehensive oversight program of the contractor's quality system. The requirements for this program are outlined in this chapter.

The CAQAP addresses contract oversight requirements for ship construction, conversion, modernization, and major repair contracts. It applies to all nuclear and non-nuclear areas, except as otherwise indicated.

SUPSHIP CAQAP planning must identify the most effective use of Government QA resources. SUPSHIPs must develop and implement risk-based oversight plans which focus on shipbuilding activities that pose the greatest risk to program cost, schedule and performance. These plans must be guided by the shipbuilder's performance and not altered to meet non-statutory requirements.

A SUPSHIP presented with a non-statutory requirement (one that would cause sub-optimization of the CAQAP process and increase risk to the shipbuilding program) must contact NAVSEA 04Z for resolution.

Note: In accordance with Federal Acquisition Regulations (FAR), reference (a), Part 46.105 and the terms of the applicable contract, the shipbuilder is responsible for controlling quality, conducting testing, and for delivering products and services that conform to contractual requirements. It is imperative, therefore, that SUPSHIP personnel ensure contractor compliance with contractual quality assurance requirements [FAR 42.302(38)] but do not serve as replacements for any aspect of the contractor's quality assurance program or be used by the contractor as a source for progressive inspections to determine end product acceptability.

SUPSHIP will develop, apply and maintain an effective program for performing Government Contract Quality Assurance (GCQA) actions consistent with the CAQAP. Coordination and cooperation among SUPSHIP departments is essential to ensure effective oversight of all aspects of contractor performance. Of particular importance is the Engineering Department's role in determining technical adequacy and compliance with technical standards. Certain new construction programs require that the CAQAP consider the role of ABS, USCG and other agencies as noted in paragraphs 1.3.10 and 1.3.11 of this manual.

There are seven elements of the CAQAP designed to provide a systematic program for ensuring compliance with contract requirements. Specific guidance for each of the elements can be found in sections 9.3.1.1 thru 9.3.1.7 of this chapter. The elements of the CAQAP will

be described by operating procedures that provide SUPSHIP personnel with specific direction in applying these elements to the local shipbuilding environment. The seven elements are:

1. Planning (§9.3.1.1)
2. Document Review (§9.3.1.2)
3. Procedures Evaluation (PE) (§9.3.1.3)
4. Product Verification Inspection (PVI) (§9.3.1.4)
5. Quality Audits (§9.3.1.5)
6. Corrective Action (§9.3.1.6)
7. Quality Data Evaluation (QDE) (§9.3.1.7)

Refer to appendix 9-A for a glossary of the terminology used in this chapter.

9.1.1 Scope

The Contract Administration Quality Assurance Program (CAQAP) applies to all SUPSHIP departments conducting Government Contract Quality Assurance (GCQA) actions in support of contractor oversight.

The policy described herein encompasses the requirements established by Federal Acquisition Regulation, reference (a), Part 46 (Quality Assurance), and NAVSEA instructions. Program-unique QA requirements not included in this chapter will be incorporated into each program's CAQAP.

9.1.2 NAVSEA Evaluations

Every two years NAVSEA will conduct a CAQAP program evaluation of each SUPSHIP. The purpose of these evaluations is to ensure SUPSHIP conformance with CAQAP requirements and responsibilities. CAQAP evaluations at SUPSHIP Groton and SUPSHIP Newport News shall be held in conjunction with NAVSEA 07Q SUBSAFE Functional audits. For SUPSHIP detachments, every effort will be made to complete the majority of the detachment's assessment concurrently with the parent SUPSHIP.

9.2 Contractor Responsibilities

Contractor quality responsibilities are established by the terms of the contract. In all cases, the contractor is responsible for controlling product quality and offering for Government acceptance only those products and services that conform to contract specifications.

Per FAR 46.202-4, higher-level quality requirements are specified in contracts for complex or critical items or when the technical requirements of the contract require control of work operations, in-process controls and inspection, or attention to factors such as organization,

planning, work instructions, documentation control, and advanced metrology. Construction contracts for U.S. Navy ships and submarines meet these criteria and will require these higher-level quality requirements.

9.2.1 Quality Management System (QMS) / ISO 9001

A QMS is a collection of business processes aimed at establishing a quality policy and achieving quality objectives. It is based on an organization's structure, policies, procedures and the resources needed to implement quality management. Although a variety of industry quality standards require a QMS, ISO 9001 is the one most widely recognized.

The QMS requirements of ISO 9001 are generic and intended to be applicable to organizations of any size or type and without regard to the products and services provided.

Because ISO 9001 is routinely called out in contracts administered by SUPSHIPs, all personnel performing QA-related functions are required to have training in the requirements of this standard (see §9.3.2).

9.3 SUPSHIP Responsibilities

When assigned to administer a government contract, SUPSHIP shall accomplish the following in accordance with FAR 46.104, Contract Administration Office responsibilities:

a. Develop and apply efficient procedures for performing Government contract quality assurance actions in accordance with the written direction of the contracting office.

b. Perform all actions necessary to verify whether the supplies or services conform to contract quality requirements.

c. Maintain, as part of the performance records of the contract, suitable records reflecting:

   (1) The nature of Government contract quality assurance actions, including, when appropriate, the number of observations made and the number and types of defects

   (2) Decisions regarding the acceptability of the products, the processes and the requirements, as well as action to correct defects

d. Implement any specific written instructions from the contracting office.

e. Report to the contracting office any defects observed in design or technical requirements, including contract quality requirements.

f. Recommend any changes necessary to the contract, specifications, instructions, or other requirements that will provide more effective operations or eliminate unnecessary costs.

In addition to these FAR requirements, each SUPSHIP is also responsible for:

g. Developing written Standard Operating Procedures (SOP) for each element of the CAQAP and executing the requirements of this program in accordance with §9.3.1.

h. Maintaining the SUPSHIP Quality Assurance competency by ensuring the adequacy of the staffing and training of personnel performing QA-related functions (§9.3.2). For the SUPSHIP QA Department, this shall include:

   (1) Maintaining a QA organization chart and personnel training matrix that identifies training requirements and status for each billet.

   (2) Reviewing the SWFT model annually to ensure QA functions are adequately represented and advising the SUPSHIP's SWFT representative of any disparities in requirements.

i. Retaining and disposing of inspection records (§9.3.3).

j. Establishing an effective quality assurance interface with Ship's Force (§9.3.4).

SUPSHIP responsibilities for complying with these requirements are discussed in detail in the following paragraphs.

9.3.1 CAQAP Responsibilities

9.3.1.1 Planning

The objective of QA planning is the efficient and economical application of QA resources to ensure effective oversight of the shipbuilder's quality program. The goal is to identify deficiencies in the shipbuilder's quality program before they can affect the quality of the end product.

The Quality Assurance Department will develop and maintain a Contract Quality Assurance Plan (CQAP) that will adequately monitor the shipbuilder's QA program and facilities [for each contract]. The plan must consider contract requirements, the shipbuilder's quality history and results of risk assessments, Quality Data Evaluations (QDE) and previous customer complaints. The QA plan must be reviewed on a regular basis and, if necessary, modified to accommodate changes in contract language or the results of QDE data or other quality indicators. The review and any changes to the QA plan must be documented. QA planning will be used to adjust SUPSHIP resources in the most efficient manner to ensure appropriate QA coverage of the shipbuilder.

QA Planning shall be systematic and shall include all SUPSHIP required CAQAP actions. At a minimum, the QA plan shall include documented procedures for:

a. appropriate distribution of SUPSHIP effort between Product Verification Inspection (PVI) and Procedure Evaluation (PE)

b. review of contract packages and related documents to determine completeness, continuity and responsibilities for ensuring contractor's performance of technical and quality requirements

c. Procedure Review (PR) to verify and/or approve the contractor's written procedures and technical data to ensure technical adequacy and timely release of the procedures

d. Procedure Evaluation (PE) to ensure the contractor accomplishes work to the requirements of their established procedures. Checklists must be developed to accomplish PEs.

e. Product Verification Inspections (PVI) on a sample basis to determine conformance to contract requirements. Checklists must be developed to accomplish PVIs.

f. application of corrective action when a breakdown or other inadequacy is noted in the contractor's quality program

g. Government Contract Quality Assurance actions at subcontractor’s facilities, i.e., Government Source Inspection (GSI)

h. collection, evaluation and use of quality data

i. accomplishing quality audits

j. review of the contractor’s quality history

9.3.1.1.1 Surveillance Plans

The QA plan shall also include documented surveillance plans. Surveillance plans must be reviewed on a regular basis and, if necessary, modified to accommodate changes in contract language or the results of QDE data or other quality indicators. Surveillance plans shall be:

a. hull specific – the plan shall address each hull under construction separately.

b. adjustable – the plan shall be flexible enough to accommodate changes in workload, identified high risk areas, etc.

c. based on ship construction phases – planning must take into account the phases of ship construction and the ability to access areas necessary to complete the QA plan.

d. time phased – the plan shall be calendar based.

e. based on a measurable Level of Effort (LOE) – the plan shall include quantifiable measures of effort, such as checklist observations, allocation of hours by percentage on critical areas or other such measures as deemed appropriate. During the QA plan review, the planned LOE shall be compared to the actual LOE. Any significant deviation and associated cause shall be documented.

f. related to and measured by QDE – the effectiveness of the surveillance plan shall be evaluated and the plan shall be adjusted based on the results of the QDE.

9.3.1.2 Document Review

Document Review is the CAQAP element for verifying that the contractor's documented procedures and technical data comply with contractual requirements. In order to ensure compliance with all contract data requirements, SUPSHIPs will establish processes to:

a. Prepare listings of all contractually required procedures and technical data that identify if Government review and/or approval is required.

b. Review a sampling of documents that may impact quality, but do not require, Government review.

c. Document all reviews and approvals, including those that do not contractually require government review.

d. Notify the contractor of disapproved procedures and technical data.

e. Adjudicate disapproved items and follow-up to ensure satisfactory correction.

9.3.1.2.1 Procedure Review (PR) Criteria

When a requirement exists for a contractor to develop formal procedures, SUPSHIP will identify those procedures necessary for review based on the degree of risk. Each identified procedure will be reviewed for conformance to the administrative and technical requirements contained in the contract. SUPSHIP must review the contractor's procedures in a timely manner and not delay the contractor's contract performance. Procedures are categorized as follows:

Category 1: Procedures for which NAVSEA approval is required by specification

Category 2: Procedures for which SUPSHIP approval is required

Category 3: Procedures for which government approval is not required, but copies are to be furnished to the SUPSHIP for information and review

All Category 1 Procedures must be submitted to NAVSEA for technical concurrence. This review includes newly developed procedures and subsequent revisions and changes. SUPSHIP shall maintain a list of all contractor procedures that identifies the category and tracks approvals and reviews. When the contractor does not develop required written procedures or fails to correct inadequate procedures, SUPSHIP will initiate a Corrective Action Request (CAR).

9.3.1.2.2 Technical Data Review Criteria

Data review and evaluation will be performed on all deliverable technical data. Review of technical data includes a detailed examination to determine if the content and format conforms to contract requirements. Technical data not requiring Government approval shall be reviewed on a selected or sampling basis. SUPSHIP may use any local means of selecting characteristics or attributes. Technical deficiencies identified in issued contractor products that violate contract requirements shall be adjudicated by issuing a CAR. All other technical deficiencies identified shall be adjudicated in accordance with the Engineering Quality Assurance (EQA) process as described in Chapter 8. A CAR shall be initiated if systemic adverse quality trends or egregious product defects are identified during the government technical review prior to product approval.

9.3.1.2.3 Documentation

For all procedures and/or technical data reviewed, SUPSHIP will maintain documentation including the identification number and title of the document, revision date, date reviewed, approval status (approved/disapproved), results of the review including all comments, and the name of the individuals performing the review.

9.3.1.3 Procedure Evaluation (PE)

PE is the CAQAP element that verifies that the contractor is complying with the written quality procedures and that the procedures are accomplishing the intended purpose of controlling product quality. PEs must be conducted by witnessing the contractor performing the associated process. PEs are associated with process inspections whereas PVI's are associated with product inspections. PEs shall be conducted utilizing checklists or an attribute system. They are to be accomplished as early as possible and periodically throughout the performance of work to confirm the sufficiency and adequacy of the quality procedures in operation. Process quality audits may be used in lieu of PEs.

9.3.1.3.1 Initial Evaluation

Evaluation of new or revised contractor quality procedures requiring government approval (Cat 1 & 2) and other procedures as identified by the Supervisor shall be conducted at the time of the contractor's initial use of the procedure. If unable to perform at initial use, the reason or situation will be documented along with a plan for future evaluation. Evaluations should include witnessing sufficient inspections of the contractor's operations described by the procedure to ensure compliance with contract requirements.

9.3.1.3.2 Continued Evaluation

When the length of the contract permits, continuing evaluations of all applicable procedures should be scheduled and conducted after the initial evaluation. When a continued evaluation of a procedure indicates that the contractor is maintaining satisfactory control of quality, the frequency of evaluation may be reduced. When continued evaluation of a procedure indicates the contractor is not maintaining control of quality, appropriate corrective action should be taken and the frequency of evaluation should be increased.

9.3.1.3.3 Documentation

Documentation for Procedure Evaluations includes:

- developed Checklists/Attribute System for PEs
- PE Schedule
- PE results including observations and nonconformances

9.3.1.4 Product Verification Inspection (PVI)

PVI is the CAQAP element that verifies that the product conforms to contract requirements. PVIs are accomplished by the cognizant SUPSHIP representative by physical examination, verification, testing, and/or concurrent inspection of all aspects of ship construction or modernization. PVIs are associated with product inspections whereas PEs are associated with process inspections. Product quality audits, with the exception of mandatory inspections or call outs, may be used in lieu of PVIs.

9.3.1.4.1 Conduct of PVI

PVI's shall be conducted utilizing checklists or an attribute system that is reviewed and updated to account for changes and revised specifications. During the development of checklists or attribute lists, SUPSHIP shall include mandatory inspection points, call outs, critical inspection points, and those areas that may be concealed from further inspection.

Adjustments in the frequency of inspections will depend on nonconformity rates and problem areas that develop. As a prerequisite to SUPSHIP inspection or verification actions, the following steps should be taken at a minimum:

1. Determine the availability and currency of contractor's written procedure.
2. Determine the contract/technical requirements.
3. Determine the currency of calibration of contractor's measuring and test equipment.
4. Determine the adequacy of contractor's documentation.

Concurrent verification of contractor inspection or test actions should be conducted as follows:

a. As the contractor performs the product inspection, verify results of the examination or test.

b. Independent of the contractor, read or use appropriate measuring/test equipment to determine if the product conforms to the technical requirements.

c. Validate that the contractor's product inspections results concur with the government's product inspection results.

When Naval Ships Technical Manual (NSTM) S9086-VD-STM-030/CH-631V3, "Preservation of Ships in Service, Surface Ships/Submarine Applications", reference (b), and/or Submarine Maintenance Standard MS 6310-081-015, Submarine Preservation, reference (c), or similar directives are invoked in a contract, the SUPSHIP is considered to be the third party inspector for preservation oversight of critical coated areas and is responsible for providing a qualified coating inspector in accordance with NAVSEA S9086-VD-STM-030/CH-631V3. The SUPSHIP third party qualified inspector is responsible for ensuring compliance with the requirements of references (b) and (c). The third party inspector may either perform the inspection or witness qualified contractor personnel performing the required measurements.

9.3.1.4.2 Documentation

Documentation for PVIs include:

a. developed checklists/attribute system for PVIs

b. PVI results, including observations/inspections and nonconformances

9.3.1.5 <u>Quality Audits</u>

A quality audit is the process of systematic examination of an organization's quality function or system. It is an essential management tool for verifying and assessing processes, for determining the effectiveness of achieving defined target levels, for providing evidence concerning the reduction and elimination of problem areas, and for examining compliance with higher level directives.

SUPSHIPs shall have a written procedure for planning and conducting internal and external quality audits. As a minimum, this procedure shall address:

- Identifying the scope of the audit and any areas of special emphasis
- Preparing an audit schedule
- Selecting audit team members with the requisite knowledge and experience
- Assigning audit team responsibilities
- Establishing documentation requirements for reporting, collecting and compiling audit findings into a final report
- Handling and distribution of a final report
- Follow-up actions

9.3.1.5.1 Internal Quality Audit

Internal quality audits are conducted to determine compliance by all SUPSHIP departments with quality-related directives and SUPSHIP CAQAP operating procedures.

A biennial self-assessment will be conducted using the current CAQAP audit guide. This audit will be conducted in the off year between the normally scheduled NAVSEA CAQAP

audits. Results will be forwarded to NAVSEA 04Z 30 days prior to the scheduled CAQAP audit.

Additional internal quality audits may be scheduled to determine compliance with quality-related directives and SUPSHIP operating procedures. These audits are conducted when authorized by SUPSHIP management or higher authority.

Examples of additional internal audits include, but are not limited to, the following:

a. A review of Quality Assurance Specialist training to ensure each is qualified to perform the technical oversight assigned.

b. An analysis of checklist utilization and attributes recorded; review trends to ensure all attributes are being covered as necessary.

c. Review of CAR process including; completeness of deficiency description, correct CAR type, appropriate response from contractor for cause or defect correction, and proper adjudication of CAR.

d. QA planning and execution; ensuring planning is effective and current.

e. Quality Data Evaluation; review of how data is collected, analyzed and reported.

9.3.1.5.2 External Quality Audits

External quality audits are the CAQAP element that examines and evaluates the contractor's products, processes, services, systems, and elements. Such audits are referred to as "process quality audits" or "product quality audits".

Process quality audits and product quality audits may be performed to examine and evaluate any process, function or entity based on local needs and conditions. These audits may be routine, or may be prompted by significant changes in the contractor's quality assurance program, process, product quality, or by a need for follow-up corrective action.

Pulse audits are a specific type of external audit during which the SUPSHIP and contractor concurrently conduct the audit. The purpose of a pulse audit is to ensure that both the SUPSHIP and contractor agree on the findings at the time the audit is conducted. Another benefit of the pulse audit is the opportunity to align QA metrics.

External audits are scheduled in addition to normal execution of CAQAP. The breadth and depth of the external audit program depends upon local conditions.

9.3.1.5.3 Contractor's Quality Program Audit (QPA)

The objective of the QPA is to ensure the contractor has an effective quality assurance program in place that enables them to manufacture and deliver new construction or modernized Navy ships in accordance with contractual requirements. While the SUPSHIP will continuously observe and record contractor performance based upon Product

Verification Inspection (PVI) and Procedure Evaluation (PE), and other focused audits, the QPA is to ensure the following elements (or the contractors equivalent programs and procedures) are in place and effective:

a. QA Planning – the application of QA resources to ensure all critical shipbuilding processes are effective in meeting contractual requirements.

b. Document Review - verifying the contractor's documented procedures and technical data comply with contractual requirements.

c. Procedure Evaluation (PE) – verifying the contractor is complying with the written quality procedures and that the procedures are accomplishing the intended purpose of controlling product quality.

d. Product Verification Inspection (PVI) – verifying the product conforms to contract requirements. PVIs are accomplished by SUPSHIP representatives through physical examination, verification, testing, concurrent witnessing, or monitoring of all aspects of the ship construction or modernization process.

e. Quality Audits – contractor's internal audits conducted to determine the effectiveness of their quality assurance program, analysis of the process, or assessment of product conformance.

f. Corrective Action – the contractor's method for ensuring non-conformities are being corrected prior to government inspection or acceptance.

g. Quality Data Evaluation – the contractor's process for the collection, evaluation and use of quality data by both the contractor and SUPSHIP.

h. Training – the contractor's process for determining needed personnel requirements, initiating action necessary to obtain the required personnel, and providing training necessary to ensure the skills are available for the performance of QA functions.

9.3.1.5.3.1 QPA Procedure

Each element of the contractor's quality assurance program should be evaluated at least once every 24 months. The execution of the QPA audit may be completed concurrently with the normal execution of SUPSHIP's oversight responsibilities. However, the results must be discretely recorded and adjudicated. Separate checklists, attributes and Corrective Action Requests (CAR) should be developed to support the QPA. The actual observations, however, can be recorded when routine PEs and PVIs are accomplished. This does not preclude the SUPSHIP from conducting an independent QPA; rather, it allows for the efficiencies of a concurrent process.

QPA checklists should be developed utilizing the contractor's local QA procedures. Local procedures should be reviewed for directives which most appropriately cover the CAQAP items listed in 9.3.1.5.3. It is the contractor's compliance with their own directives that should be verified during the QPA. Note that local contractor directives may not align directly with the SOM CAQAP elements. Hence, a subjective assessment must be made to determine if the QMS element is missing.

Note: The QPA for SUBSAFE shipbuilding activities shall be completed concurrently with the SUBSAFE Functional Audits of the shipbuilder.

9.3.1.5.4 Audit Documentation Requirements

Documentation for quality audits include:

a. Audit schedules, including the identification of the lead auditor

b. Audit Reports. Audit reports shall include:

1. Purpose of Audit
2. Scope of Audit
3. Methodology
4. Audit Checklist
5. Findings
6. Corrective actions taken

9.3.1.6 Corrective Action

Corrective Action is the CAQAP element that defines the SUPSHIP process of requesting action by a contractor to correct product or process deficiencies. It also identifies the requirement for SUPSHIP to monitor the contractor's efforts to correct such deficiencies as well as the contractor's efforts to determine and correct the cause of deficiencies. Any breakdown in the contractor's quality management system requires action by SUPSHIP to ensure that product quality is not compromised. The extent of this action depends on the frequency and significance of the deficiency and the contractor's quality history.

Corrective action as described in this section employs the "closed loop" concept, i.e., appropriate measures must be taken to identify the cause and prevent the recurrence of deficiencies. It is the contractor's responsibility to correct identified deficiencies and to initiate preventive action to eliminate the causes of deficiencies. SUPSHIP must determine the effectiveness of the contractor's action and will also determine the necessity for tighter control to ensure that the contractor's corrective action is satisfactory.

Documentation of all identified deficiencies is an essential aspect of the overall CAQAP program. It ensures that accurate deficiency rates can be developed as a means of assessing the overall health of the contractor's Quality Assurance program.

9.3.1.6.1 Corrective Action Request (CAR)

The CAR is the method by which the Government informs the contractor of a condition that is not in conformance with contractual requirements. The condition may be a deficient product or a process that may result in a deficient product. The CAR may also be used for conditions that are not quality related, such as safety and environmental deficiencies, provided the CARs can be readily segregated.

The following paragraphs describe the classification of defects (also referred to as nonconformities), the types of CARs and how they are used.

9.3.1.6.2 Classification of Defects

9.3.1.6.2.1 Minor Defect

A minor defect is a product or process deficiency, defect or a departure from established standards that is not likely to materially reduce the usability of the unit of product for its intended purpose.

9.3.1.6.2.2 Major Defect

A major defect is a defect or a departure from established standards, other than critical, that is likely to result in failure of the unit of product, or to materially reduce the usability of the unit of product for its intended purpose or when hazardous or unsafe conditions may exist.

9.3.1.6.2.3 Critical Defect

A critical defect is a defect or a departure from established standards that is likely to result in hazardous or unsafe conditions for individuals using, maintaining, or depending upon the unit of product or a defect that is likely to prevent performance of the function of a major end item such as a ship or ship system.

9.3.1.6.3 Types and Uses of CARs

9.3.1.6.3.1 Type A

Type A CARs will be issued for all detected minor defects. In such cases where the minor deficiency is corrected on the spot, a Type A CAR will be initiated and forwarded to the contractor for information. No contractor response is required for Type A CARs when the condition is corrected on the spot. Type A CARs will not be issued for defects requiring Correction to Cause.

When a contractor fails to respond to a Type A CAR in the required timeframe, a Type B CAR may be issued for failure to respond in a timely manner. A Type A CAR will not be elevated to a Type B CAR simply because the contractor failed to respond in a timely manner.

9.3.1.6.3.2 Type B

Type B CARs will be issued for all major deficiencies or when a trend of recurring minor deficiencies is detected.

9.3.1.6.3.3 Type C

Type C CAR will be issued in the form of formal correspondence to the contractor. A Type C CAR will be issued when:

- critical defects are identified
- previous methods fail to obtain satisfactory results
- severity of the situation warrants

Type C CARs shall be issued from the Quality Assurance Officer/Director/Manager or delegated authority notifying the contractor's appropriate level of management that a serious quality problem exists and immediate management action must be taken to comply with the provisions of the contract. A copy of each Type C CAR shall be furnished to the SUPSHIP Contracts Department and to SEA 04Z.

9.3.1.6.3.4 Type D

Type D CARs will be issued in the form of a formal correspondence to the contractor. When a Type C CAR fails to obtain satisfactory results, or when the severity of the situation warrants, a Type D CAR shall be issued by the Supervisor or the Contracting Officer notifying the contractor's top level management that a serious quality problem exists and immediate management action must be taken to comply with the provisions of the contract. A copy of each Type D CAR shall be furnished to the SUPSHIP Contracts Department and to SEA 04Z.

9.3.1.6.3.5 Correction to Defect

Correction to Defect is the term used on a CAR to request that a contractor correct a specific nonconformance and provide a response as to the specific actions taken to correct such defect.

9.3.1.6.3.6 Correction to Cause

Correction to Cause is the term used on a CAR to request that a contractor provide a specific response as to the root cause of the nonconformance and the specific actions taken to prevent recurrence.

a) Correction to Cause will not be used for Type A CARs.

b) Correction to Cause may be used on Type B CARs where SUPSHIP has determined that it is warranted. Correction of Cause shall be requested when the defect is a result of a systemic problem in the contractor’s process, a result of a deficiency in a contractor’s procedure, or the defect is determined to be of a recurring nature.

c) Correction to Cause will be requested for Type C & D CARs.

9.3.1.6.3.7 CAR Issuance

A CAR issued to a contractor will include, at a minimum: ship designation, unique serial number, CAR type, appropriate references, statement of nonconformance and if not submitted electronically, the originator’s signature. The CAR must also indicate if SUPSHIP is requesting Correction to Defect or Correction to Cause or both. Each defect will be described clearly and in sufficient detail for the contractor to readily identify the problem. The description must identify the specification or contract violation.

For Type A CARs that have been corrected on the spot, SUPSHIP will enter the corrective action taken by the contractor and the name of the contractor POC contacted prior to forwarding the CAR to the contractor for information.

Appendix 9-B provides an example of a CAR form that is used in the Technical Support Management (TSM) system.

9.3.1.6.3.8 Alteration Installation Team (AIT) CARs

If a CAR is generated resulting from an AIT work item, SUPSHIP will notify and provide a copy of the CAR to the AIT coordinator.

9.3.1.6.4 Contractor Response Time

SUPSHIP procedures will clearly identify the timeframe in which the contractor has to respond to each CAR type. This should be based on the requirements of each individual contract. Lacking contractual guidance, as a general rule the contractor should provide initial response to type A CARs within 7 calendar days, type B CARs within 21 calendar days and type C&D CARs within 30 calendar days. If the situation is such that continuing work without correcting the deficiency will hide the deficiency or impair or prevent the correction in any way, SUPSHIP will request an appropriate response time to prevent this from occurring. SUPSHIP procedures will document the process in which the contractor may request an extension of the required response time to correct the deficiency.

The actual time frame for completion of contractor corrective action may vary; however, prompt response to CARs is required. An interim reply may be acceptable pending contractor's completion of corrective actions.

9.3.1.6.5 Contractor's Response

The contractor's response must clearly document the actions taken to correct the nonconformance and/or to correct the cause of the nonconformance as requested by the SUPSHIP.

9.3.1.6.6 CAR Closeout

When a CAR is returned by the contractor, SUPSHIP will evaluate the contractor's corrective action response (including elimination of causes to prevent recurrence when appropriate) and verify the acceptability of the corrective action taken. If the actions taken by the contractor are determined to be acceptable, SUPSHIP will indicate this on the CAR and close the CAR. If the contractor's actions are determined to be unacceptable, SUPSHIP will return the CAR to the contractor for further action.

9.3.1.6.7 Documentation

Corrective Action documentation includes:

a. status of CARs

b. records of CARs

9.3.1.7 Quality Data Evaluation (QDE)

QDE is the CAQAP element that provides for the collection, evaluation, and use of SUPSHIP, contractor and customer quality data. Operating procedures within SUPSHIP will be established to describe the system to be used for collecting, evaluating, maintaining, and using the data.

9.3.1.7.1 Quality Data

At a minimum, the data to be evaluated will include the following:

a. Results of all Observations (PR, PE & PVIs) to include a defect rate analysis

b. Corrective Action Requests

c. Results of Audits and Surveys

d. Critiques

e. Available contractor data relating to the above data

Examples of Quality data that may also be included:

f. Customer feedback

g. Inspection and test results

h. Reports

i. CASREPS

j. Product Quality Deficiency Reports

k. Trouble Reports

9.3.1.7.2 Data Evaluation

SUPSHIP will evaluate the quality data individually or collectively at established periodic intervals (minimum of quarterly) in order to:

a. Adjust the intensity of application of basic elements of the CAQAP

b. Provide a basis for acceptance or rejection of products or services

c. Provide a basis for acceptability of a contractor's quality assurance program and written procedures

d. Determine effectiveness of contractor's quality assurance program

e. Provide a basis for recommending process improvement initiatives to the contractor

9.3.1.7.3 Documentation

Documentation will include a quarterly report indicating quality data evaluation results.

9.3.1.7.4 Common Critical Process Metrics

In addition to other metrics and measurements developed locally, SUPSHIP will include, as a component to the Quality Data Evaluation CAQAP element, Common Critical Process Metrics. The Common Critical Processes are those areas common to all shipbuilding programs which have been determined to be critical for assessing the effectiveness of the shipbuilder's quality assurance program and the quality of the ships being constructed. The Common Critical Processes are as follows:

a. Pipe Welding

b. Structural Welding

c. Cableways

d. Pipe Installation

e. Mechanical Installation

f. Structural Installation

g. Coatings

h. System Cleanliness

The data source for Common Critical Process metrics are PE and PVI observation data for the process areas based upon local SUPSHIP checklists and attributes. SUPSHIPs will map their checklist and attribute data to each Critical Common Process area to ensure all relevant observations are included in the metric.

SUPSHIPs will provide this data to NAVSEA 04Z3 no later than the last day of the first full week of each month, or as otherwise approved, using the format below:

Ship Class	Pipe Welding		Structural Welding		Cableways		Pipe Installation		Mechanical Installation		Structural Installation		Coating		System Cleanliness	
	Obs	Def	Obs	Def	Obs	Def	Obs	Def	Obs	Def	Obs	Def	Obs	Def	Obs	Def

Upon receipt, NAVSEA 04Z3 will compile all data into the SUPSHIP Quality Metrics, Common Critical Process report. This report is used as part of NAVSEA's quarterly New Construction Report. See appendix 9-D for samples of the community-wide report as well as an individual SUPSHIP's input.

Calculation: For each ship class with hulls under new construction, record the reject rates for the Common Critical Process observations, both PE and PVI. The reject rate is expressed as a percentage and calculated as follows:

$$\text{Reject Rate \%} = \frac{\#\ \text{Rejected Obs}}{(\#\ \text{of Rejected Obs}) + (\#\ \text{of Accepted Obs})}(*100)$$

Defect rates less than 1% will be rated as GREEN; rates between 1% and 2.5% will be rated as YELLOW; and rates greater than 2.5% will be rated at RED. In process areas where the number of observations is less than 100 for the calendar quarter, SUPSHIP will determine if the available data is sufficient to include in the New Construction Report. If SUPSHIP determines there is insufficient data to include, they will notify SEA 04Z. That process area will then be grayed out on the New Construction Report.

All process areas that have a defect rate greater than 2.5% will include back up information to indicate the general nature of the findings that drove the defect rate and the actions taken or to be taken by SUPSHIP to mitigate the problem. For the process areas that are grayed out, SUPSHIP will include backup information indicating the cause for insufficient data.

Periodicity and Analysis: Common Critical Process Metrics will be produced quarterly. Observation data will be compiled by each SUPSHIP and parsed by shipbuilding program displaying a three month running average with an arrow indicating a past six month trend as positive, negative or neutral.

Note: The Common Critical Process Metrics are intended to assist in measuring the efficacy of the common critical shipbuilding processes and are to be used by SUPSHIP as one part of the overall quality assurance planning effort.

The standards for R/Y/G are not intended to imply that any defect is acceptable. All defects noted are assumed to be corrected by the shipbuilder via the Shipbuilder and SUPSHIP Quality Management Systems. The "Green" standard indicates that the common critical process is working to the established standard.

9.3.2 Maintaining SUPSHIP Quality Assurance Competency

For projects as complex as the construction of U.S. Navy ships, verifying conformance to contract specifications is a particularly demanding responsibility. It requires that SUPSHIP personnel performing QA-related functions be knowledgeable in a variety of technical disciplines and possess a thorough understanding of the CAQAP and the requirements, specifications and industrial standards imposed by each contract. It is imperative, therefore, that SUPSHIPs maintain a robust program for staffing and training personnel performing these functions.

The QA department shall develop and maintain a training plan for all personnel performing QA-related functions. The plan should identify the training and qualification requirements for each billet and lay out a schedule for satisfying both one-time and recurring requirements.

Although a SUPSHIP's total manning is largely determined by the SUPSHIP Workforce Forecasting Tool (SWFT; see SOM 4.5.1), it is important that a senior QA representative participate in the command's input to the annual SWFT model review to help ensure that SWFT accurately reflects QA requirements. Note that in order to optimize mission performance for local conditions, the Supervisor may depart from the SWFT-determined departmental manning as long as the total manning authorization is not exceeded.

9.3.2.1 ISO 9001 Training Requirements

9.3.2.1.1 Personnel Performing Quality-Related Functions

Personnel performing quality-related functions must satisfactorily complete introductory/overview training in International Standards Organization (ISO) 9001:2008 "Quality Management System," reference (d). Training may be prepared and given locally, but must include the following topics relating to the elements of the ISO 9001 series Quality Management System:

- Core Standards
- ISO 9001 Clauses
- Implementing an ISO 9001 Quality Management System

Defense Acquisition University continuous learning module CLE 201 fulfills this requirement.

9.3.2.1.2 Personnel Performing Quality Audits

Personnel performing quality audits of the contractor must satisfactorily complete training by a Lead Auditor in ISO 9001 Internal Auditor (or equivalent). This training may be prepared and given locally, but must include the following topics:

- Quality Management Systems Objectives
- Overview of Auditing
- Types of Audits
- Auditing as a Management Tool
- Overview of ISO 9001 series

- Quality System Documentation
- Pre-audit Planning Activities
- Pre-audit Meeting, Audit Plan and Resources
- Preparation of Checklists and Sampling
- On-Site Audit Activates
- Opening Meeting Planning and Notification
- Listening and Questioning Techniques
- Report Writing
- Follow-Up and Corrective Action
- Audit

This training is optional for Lead Auditors.

Defense Acquisition University continuous learning modules CLE 201 and CLM 103 fulfill this requirement.

9.3.2.1.3 Personnel Assigned as Lead Auditor/Audit Team Leader

Personnel assigned as Lead Auditor/Audit Team Leader must satisfactorily complete formal training in ISO 9001 series Lead Auditor training or equivalent by a certified instructor.

Auditor and Lead Auditor ISO training developed in support of SUBSAFE audits and including the requirements listed above, and found to be sufficient for SUBSAFE functional audits, meet the SOM requirement for ISO training.

9.3.2.2 Coating Training Requirements

Specialized training and certification in Coating Inspection is required for each individual that is performing verification of contractor coating processes on critical surfaces. Training and certification must be accomplished through a NAVSEA approved course (e.g., National Association of Corrosion Engineering (NACE) Session 1 or NAVSEA Basic Paint Inspector (NBPI)). Recertification requirement is five years for NACE and four years for NBPI. Requirements for critical surfaces are defined in NSTM S9086-VD-STM-030-CHAPTER 631.

9.3.2.3 Electrical Cableway Training Requirements

Personnel performing inspection or acceptance of electrical cableway work shall be trained and qualified to NAVSEAINST 9304.1D**, Shipboard Electrical Cable and Cableway Inspection and Reporting Procedures, reference (e).

9.3.2.4 Oxygen Cleanliness Training Requirements

Specialized training and certification in Oxygen Cleanliness is required for each individual performing verification of contractor cleaning, assembly or packaging of certified oxygen clean systems and components. Training and certification must be administered by a NAVSEA approved Certified Oxygen Clean Instructor in accordance with MIL-STD-1330D(1), Precision Cleaning and Testing of Shipboard Oxygen, Helium, Helium-Oxygen,

** Denotes secure hyperlink requiring NMCI/CAC access

Nitrogen and Hydrogen Systems, reference (f). Recertification of personnel is required every three years.

9.3.2.5 Welding/Brazing Workmanship Training Requirements

Personnel performing oversight of contractor-performed welding or brazing workmanship must satisfactorily complete training in welding/brazing workmanship and associated in-process work practices IAW NAVSEA Technical Publication S9074-AQ-GIB-010/248 (TP248), Requirements for Welding and Brazing Procedure and Performance Qualification, reference (g).

9.3.2.6 Nondestructive Testing (NDT) Personnel Requirements

9.3.2.6.1 Non-Nuclear NDT Requirements

Specialized training, experience and certification in applicable NDT methods is required for SUPSHIP personnel performing Procedure Reviews, Procedure Evaluations, Product Verification Inspections, Process Quality Audits, and actual accomplishment of NDT. Unless otherwise specified, NDT personnel shall be certified in accordance with NAVSEA Technical Publication T9074-AS-GIB-010/271, Requirements for Nondestructive Testing Methods, reference (h), and/or NAVSEA 0900-LP-001-7000, Fabrication and Inspection of Brazed Piping Systems, reference (i), as applicable.

Training and Qualification. Training programs may be developed by the SUPSHIP office or obtained from Portsmouth Naval Shipyard (PNS), other naval activities, Navy technical schools, chapters of the American Society for Nondestructive Testing, or from private industry. Work-time-experience (WTE) required as a qualification prerequisite for NDT Inspector candidates shall be obtained by actual hands-on experience and by performance of PR, PE, PVI, and PQA of a contractor's inspection functions in the applicable NDT method under the guidance of a NDT Inspector or NDT Examiner as defined in the activity's Written Practice. Formal classroom training and qualification examinations shall be in accordance with reference (i) or (j), as applicable.

NDT qualifications are:

a. NDT Inspector: An individual qualified to set up and calibrate equipment and to interpret and evaluate results with respect to applicable codes, standards and specifications. The Inspector shall be thoroughly familiar with the scope and limitations of the methods for which the individual is qualified, exercise assigned responsibility for on-the-job training (i.e., WTE) and guidance of trainees, and prepare written instructions and document/report NDT results.

b. NDT Examiner: An NDT Examiner shall be capable of establishing techniques and procedures; interpreting codes, standards, specifications, and procedures; and designing the particular test methods, techniques and procedures to be used. The NDT Examiner shall be responsible for the NDT operations for which qualified and assigned, and will be capable of interpreting and evaluating NDT results in terms of existing codes, standards

and specifications. The NDT Examiner will have sufficient practical background in applicable materials, fabrication and product technology to establish techniques and to assist in establishing acceptance criteria where none are otherwise available. The NDT Examiner shall have general familiarity with other appropriate NDT methods and will be qualified to train and examine Inspector personnel for certification.

Certification. SUPSHIP CAQAP Inspector personnel shall be certified/recertified at their activity under a program administered by an NDT Examiner certified in accordance with NAVSEAINST 4355.7B, Nondestructive Test (NDT) Examiner Qualification and Requalification, reference (j). This document provides the NDT Examiner qualification and certification requirements for all government employed civilian and military personnel attached to Naval activities. NDT Inspector certification is restricted to the oversight of contractor-performed NDT and not for product acceptance inspections. NDT Examiner personnel shall recertify at the intervals specified in reference (j). NDT Inspector personnel shall recertify at the intervals specified in reference (h). PNS is authorized to administer NDT Inspector (Level II) qualification examinations to CAQAP personnel in any of the following methods:

a. Visual Testing (VT)

b. VT of Special Purpose Lead (Inspector certification only)

c. Magnetic Particle Testing (MT)

d. Liquid Penetrant Testing (PT)

e. Radiographic Testing (RT) (Structural, Castings and Piping)

f. Ultrasonic Testing (UT) of Welds, Thickness and Silver Braze (individual Inspector certifications may be obtained)

g. UT of Special Purpose Lead (Inspector certification only)

h. Eddy Current Testing (ET) of Welds and Base Material

Certification Maintenance. NDT Inspector personnel shall maintain certification in accordance with reference (i) or (j) requirements as applicable.

9.3.2.6.2 Nuclear NDT Requirements

SUPSHIP personnel performing Nuclear NDT Level III (Examiner) duties are to be certified/recertified as specified in NAVSEAINST 4355.7B. Nuclear NDT Level II (Inspector) personnel are to be certified/recertified by the SUPSHIP activity's Nuclear NDT Level III (Examiner) in accordance with NAVSEA 250-1500-1, "Welding Standard", reference (k), NSTR-99, "Qualification Examination Requirements for Nondestructive Test Personnel", reference (l) and for UT/VT of lead bond certification is in accordance with the classified MIL-STD 791, Certification for UT/VT of Lead Bond, reference (m).

9.3.2.7 Additional Training

In addition to the training listed above, SUPSHIP should determine specific training needs to ensure personnel have the skills, techniques and knowledge necessary, depending on the processes/products being evaluated or inspected. Some examples include TEMPEST, composites, shock, fiber optics, propellers/propulsors, radar cross section reduction, emerging technologies and SUBSAFE DSS.

9.3.2.8 Defense Workforce Improvement Act (DAWIA) Requirements

DAWIA established a process through which persons in the acquisition workforce would be recognized as having achieved professional status. Certification is the procedure through which a military service or DoD Component determines that an employee meets the education, training and experience standards required for a career level in any acquisition, technology and logistics career. For SUPSHIP Quality Assurance Specialists (1910), the following requirements are set:

- GS-9 and below shall require Level 1 DAWIA in Production, Quality and Manufacturing (PQM) career field.
- GS 11-12 shall require Level 2 in DAWIA PQM career field.
- GS-13 and above shall require Level 3 in DAWIA PQM career field.

9.3.2.9 Training Records

At a minimum, SUPSHIPs will maintain the following training documentation:

a. A listing of all training requirements deemed necessary for each type of billet conducting/performing the Quality Assurance functions. (i.e., hull/NDT, paint, combat systems, electrical, etc.).

b. A listing of specific curriculums, courses or lesson plans, etc., that are utilized to satisfy the training requirements identified for each functional billet.

c. Individual training records for each person in the Quality Assurance Department fulfilling a billet which requires training.

d. Departmental training schedules.

9.3.3 Records

9.3.3.1 Technical Support Management (TSM) System

TSM is the SUPSHIP enterprise solution for document and content management of ship construction and repair data. It is used by the SUPHSIP community, PEO's, the Navy Board of Inspection and Survey, and in some cases, by shipbuilders.

For quality assurance records, TSM is used to document and track:

- Observation data

- Corrective Actions Requests
- Procedure Review
- Procedure Evaluations
- Quality Audits
- Checklist Management

TSM may also be used to document and track:

- Test procedures
- Department operating instructions
- Ship Specification Reviews
- Electronic Trial Cards

9.3.3.2 Retention and Disposal of Inspection Records

Unless otherwise stated in applicable directives, quality inspection records will be retained and disposed of in accordance with SECNAV M-5210.1, Records Management Manual, reference (n). The policy for retention of past performance information (i.e., quality records) to be used for the Contract Performance Appraisal Reporting System (CPARS) is three years after completion of contract performance per FAR Subpart FAR -- Part 42 Contract Administration and Audit Services. The performance period is not complete until the end of the warranty period. In general, the following should occur:

a. Retain all quality inspection records for a period of three years after the delivery of each ship or craft in the contract. Following the three year retention period, quality inspection records under Standard Subject Identification Code (SSIC) 4855 may be destroyed unless legal action is pending with contractors for which these records pertain.

b. Submarine Safety (SUBSAFE) quality records under SSIC 9077 and Naval Nuclear Propulsion quality records under SSIC 9210 will be retained and disposed of in accordance with SECNAV M-5210.1 unless legal action is pending with contractors for which these records pertain.

9.3.4 Establishing an Effective Quality Assurance Interface with Ship's Force

Although SUPSHIP is the authority for acceptance of accomplished work in accordance with the contractual agreement, the ship's commanding officer (or prospective commanding officer) must be satisfied that the work performed is acceptable. The prospective/commanding officer will normally assign members of Ship's Force (SF) to review the technical specifications and observe production work performed on the ship. If a SF observer is dissatisfied with the quality of the contractor's work, the observer will not attempt to require contractor personnel to redo or otherwise amend the work performed. Rather, the SF observer will relay the findings to the appropriate SUPSHIP representative who will then take action. The prospective/commanding officer and any SF observers should participate in conferences held to determine progress of work. The pre-commissioning crew should discuss any problems that are observed with the quality of the work or services provided to

the ship with the SUPSHIP program management team prior to any conferences where the contractor's representatives will be in attendance.

In addition, SF personnel may be provided an opportunity for training on QA functions under the cognizance of SUPSHIP. Should the prospective/commanding officer elect to receive training, it should be performed in accordance with a Memorandum of Understanding (MOU).

9.3.5 Trouble Reports

Trouble Reports identify significant problems encountered in the construction, repair and maintenance of Naval ships. SUPSHIP shall have a process in place to comply with the requirements of reference (o), NAVSEAINST 4700.17B CH-1**, Preparation and Submission of Trouble Reports .

9.4 Government Contract Quality Assurance Actions at Source

9.4.1 Purpose

The prime contractor is responsible for controlling the quality of materials, items and services provided by its subcontractors. Government Contract Quality Assurance (GCQA) on subcontracted supplies or services shall be performed only when required in the Government's interest. The primary purpose is to assist SUPSHIP in determining if the prime contractor is ensuring the conformance of subcontracted supplies or services with contract requirements. GCQA at source, previously referred to as Government Source Inspection (GSI), does not relieve the prime contractor of any responsibilities of the contract and GCQA does not establish a contractual relationship between the Government and the subcontractor. SUPSHIP requests for GCQA shall be held to a minimum based on quality performance history maintained by the NAVSEALOGCEN/SUPSHIP and the GCQA criteria, paragraph 9.4.3.1 below.

9.4.2 Exception

This paragraph does not apply to procurements under the technical cognizance of the Deputy Commander, Nuclear Power Directorate, NAVSEA 08. NAVSEAINST 9210.31B**, Government Procurement Quality Source Inspection Actions for Shipyard Procured Material Under Cognizance of SEA 08, reference (p), provides guidance for procurement of products under NAVSEA 08 cognizance.

9.4.3 Requesting GCQA at Source

SUPSHIP will establish a process for invoking GCQA on subcontracted supplies and for preparation and issue of GCQA instructions. The process should include providing the formal Letter of Delegation (LOD) as well as contacting the on-site or cognizant Defense Contract Management Agency (DCMA) Quality Assurance Representative (QAR).

** Denotes secure hyperlink requiring NMCI/CAC access

9.4.3.1 GCQA Criteria

Government inspection, as stated in FAR Part 46.4 and DFARS 246.402, during contract performance is essential. Complex items have quality characteristics, not wholly visible in the end item, for which contractual conformance must be established progressively through precise measurements, tests and controls applied during purchasing, manufacturing, performance, assembly, and functional operation either as an individual item or in conjunction with other items. GCQA is to be invoked based on the following criteria:

a. mandatory GCQA actions imposed on the SUPSHIP that can be accomplished only at the subcontractor's location

b. performance at any other place would require uneconomical disassembly, destructive testing or special required instruments, gauges, or facilities that are available only at the subcontractor location

c. performance at any other place would destroy or require the replacement of costly special packing and packaging

d. considerable loss would result from the manufacture and shipment of unacceptable supplies, or from the delay in making necessary corrections

e. government inspection during contract performance is essential

f. contract specifies that certain quality assurance functions, which can be performed only at the subcontractor’s plant, are to be performed by the Government

g. items requiring DD 250 for acceptance by the Government

h. it is determined for other reasons to be in the Government’s interest

i. supplies or services for which certificates, records, reports or similar evidence of quality must be at the subcontractor location

j. item is to be shipped from the subcontractor’s plant to the using activity and inspection at source is required

k. repeated failures

9.4.3.2 Purchase Order Clause

When GCQA actions are determined to be necessary, the prime contractor will be requested to add the following or similar Government notification and access clause to the purchase order:

“Government inspection is required prior to shipment from your plant. Upon receipt of this order, promptly notify and furnish a copy of this and all pertinent data/documents to the Government representative who normally services your plant so that appropriate planning for Government inspection can be accomplished. In the event the Government representative or office cannot be located, our purchasing agent shall be notified immediately.”

9.4.3.3 Letter of Delegation (LOD)

When invoking GCQA, a Letter of Delegation (LOD) will be prepared in accordance with the Product Data and Reporting Program (PDREP) guidance contained in appendix 9-C.

The SUPSHIP representative will define the necessary GCQA actions to be taken and the documentation to be provided by the Government representative at the subcontractor's plant. Defined actions should indicate specific quality characteristics, processes or procedures to be verified, tests to be witnessed, sampling plans to be used, or records, reports, and certifications to be evaluated.

All written statements, contract terms, and conditions relating to GCQA actions at the subcontractor level shall be worded so as not to:

a. affect the contractual relationship between the prime contractor and the Government, or between the prime contractor and the subcontractor

b. establish a contractual relationship between the Government and the subcontractor

c. constitute a waiver of the Government's right to accept or reject the supplies or services

9.4.3.4 Distribution of LODs

The LOD will be issued to DCMA in accordance with the instructions provided in Appendix 9-C. Changes to purchasing documents will be processed similarly.

9.4.3.5 Documentation

All correspondence with DCMA including, but not limited to, verification of receipt of LOD and verification of completion of delegation will be in accordance with existing DCMA guidance.

9.5 Product Data Reporting and Evaluation Program (PDREP)

Nonconformance of Government-Furnished Material (GFM) or Contractor-Furnished Material (CFM) with GCQA at source, identified by the prime contractor during receipt inspection and reported to SUPSHIP, shall be documented in accordance with Product Data and Reporting Program (PDREP) guidance in Appendix 9-C and SECNAVINST 4855.3C, Product Data Reporting and Evaluation Program (PDREP), reference (q).

Appendix 9-A: Quality Assurance Glossary

Attribute: A characteristic or property which is used to determine acceptability or unacceptability with respect to a given requirement.

Certification: The procedure and action by a duly authorized body of determining, verifying and attesting in writing to the qualifications of personnel, processes, procedures, or items in accordance with applicable requirements.

Characteristic: A physical, chemical, visual, functional, or any other identifiable property that helps differentiate between items of a given sample or population. The difference may be either quantitative (by variables) or qualitative (by attributes).

Corrective Action: An action taken to correct a specific nonconformance by repair, rework, replacement, or a change in requirements and the elimination of the causes to prevent recurrence.

Corrective Action Request (CAR): Any request to the contractor for the correction of a non-conformance.

Critical Nonconformance (Type C or D): A nonconformance related to system failures that requires a high/highest level of management action.

Deviation: Written authorization, granted prior to the manufacture of an item, to depart from a particular performance or design requirement of a specification or referenced document, for a specific number of units or specific period of time.

Document: A medium and the information recorded on it that generally has permanence and can be read by a person or machine.

Inspection: The act of measuring, examining, testing, gauging or otherwise comparing of supplies or services with requirements to determine conformity.

International Organization for Standardization (ISO): A worldwide federation of national standards bodies.

Lead Auditor: A person who is qualified to perform and designated to lead/manage a quality audit.

Major Nonconformance (Type B): A nonconformance that judgment and experience indicate could impair the performance or life of the product and/or result in hazardous or unsafe conditions for the user.

Minor Nonconformance (Type A): A nonconformance or flaw that will probably not impair the performance or life of a product, nor result in unsafe conditions for the user; easily corrected for a minor defect.

Nonconformance: A departure of a quality characteristic from its intended level or state that occurs with a severity sufficient to cause an associated product or service not to meet a specification requirement. Used interchangeably with the term “defect.”

Observation: An action that occurs when one attribute is verified to one unit of product.

Preventive Action: An action taken to eliminate the causes of a potential nonconformity, or other undesirable situation, to prevent occurrence.

Process: A set of interrelated resources and activities that transform inputs into outputs with the aim of adding value.

Process Quality Audit: An analysis of elements of a process and appraisal of completeness, correctness of conditions, and probable effectiveness.

Products: The results of activities or services; a generic term that denotes goods and/or services.

Product Quality Audit: A quantitative assessment of conformance to required product characteristics.

Quality: The composite of all features and characteristics of a product or service that bear on its ability to satisfy given needs.

Quality Assurance (QA): A planned and systematic pattern of all actions necessary to provide adequate confidence that the product or service conforms to established technical requirements.

Quality Audit: A systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.

Quality Management System (QMS): ISO 9001 term used for the collective policies, plans, practices, and the supporting infrastructure by which an organization aims to reduce and eventually eliminate non-conformance to specifications, standards and customer expectations in the most cost effective and efficient manner.

Quality Program Audit (QPA): A documented activity performed to verify, by examination and evaluation of objective evidence, that applicable elements of the quality assurance program are suitable and have been developed, documented and effectively implemented in accordance with specified requirements.

Record: A document that contains objective evidence that shows activities performed or results achieved.

Specification: The document that prescribes the requirements with which the product or service has to conform.

Surveillance: The continuing monitoring and verification of the status of procedures, methods, conditions, products, processes, services, and analysis of records to ensure that specified requirements are being fulfilled.

Technical Data: Data consisting of specifications and drawings.

Testing: A means of determining the capability of an item to meet specified requirements by subjecting the item to a set of physical, chemical, environmental, or operational actions and conditions.

Unit of Product: An entity that can be inspected or verified, expressed in distinct or quantitative terms (e.g., 5 linear feet of weld).

Verification: The process of confirming by examination and provision of objective evidence that specified requirements have been fulfilled.

Waiver: A written authorization to use or release a quantity of material, components or stores already manufactured, but not conforming to the specified requirements.

Other terms and definitions are as listed in ANSI/ASQC A8402-1994.

Appendix 9-B: Corrective Action Request (CAR)

TSM | CAR-

Header					
Document:		Document Date:			
Aliases:					
Title:					
Class:					
Hulls:					
Compartments:					
Originator Name:		Originator Phone:		Originator Org Node:	

Document Status							
Task	Workflow	State	State Owner	Start Date	Date Completed	Workflow Due Date	Task Owner

Hulls			
Hull	Contractor Hull	Name	Applicability

General CAR Information							
CAR Type:		Status:				CPARS:	
Issuer Name:				Issue Date:		Complete Date:	
Reply Date:		Recycle Date:				Recycle Reply Date:	
Check List:							
Unit of Product:		Unit of Product Type:		Unit of Product Title:			
Vendor:							
Shipbuilder Cage Code:							
Yard Location:							
Category:							
Area of Concern:		Functional Area:				Impact:	
Problem Origin:							
Spec Item:		Equipment Noun Name:					
Days to Correct:		INSURV Decks:				Key Event:	
Contractor POC:		Contractor Phone:					
Correction to Cause:		Correction to Defect:				Affects Production:	

Contractor Tracking					
Received Date:		ECD Date:		Answer Date:	
Submit Date:		Contractor Actionee:		Contr Assigned:	
Contr Department:		Contractor Charge No:		Contr Dept Issued Date:	

Compartments
None

SWBS
None

References
None

Comments	
CAR Subject:	
CAR Detail:	
Contract Requirement:	
Contractor Response:	
Government Response:	
Recycle Remarks:	

Government Only Comments	
Government Notes:	
Inspector Notes:	

Official Documents
None

Flags Information
None

Related Documents
None

Audit Info			
Created by Name:		Created On:	
Last Edited By:		Last Edited On:	

Appendix 9-C: Product Data and Reporting Program (PDREP)

Ref: (a) SECNAVINST 4855.3B dtd 22 Dec 2005
(b) NAVSO P-3683B, Navy and Marine Corps Product Data Reporting and Evaluation Program (PDREP) Manual

1. **Purpose**. This procedure defines the process for Supervisor of Shipbuilding, Conversion and Repair (SUPSHIP) departments to comply with reference (a) as it applies to the SUPSHIP mission.

2. **Scope**. This Standard Operating Procedure (SOP) is applicable to SUPSHIP Departments Codes 200 and 300 each of which has PDREP compliance responsibilities per reference (a).

3. **PDREP Objective**. PDREP and its Automated Information System (AIS) are utilized by DON activities to collect and evaluate product quality data, deficiency trends and supplier performance history. PDREP enables the acquisition community to assess and monitor supplier product quality and past performance. Data contained in the PDREP database supports classification and evaluation reports of contractors and suppliers while highlighting material and quality trends. Resident data includes DON data known as contractor or supplier performance data and is supplemented by other DOD activities (Army, Air Force, Defense Logistics Agency (DLA), Defense Contract Management Agency (DCMA), and Prime Contractors) past performance information to provide a clear picture of contractor and vendor performance.

4. **Responsibilities**.

SUPSHIP Commanding Officer shall assign in writing a command PDREP coordinator. The PDREP coordinator will ensure the command is aware of reference (a) and in compliance with those requirements which fall within the SUPSHIP mission.

SUPSHIP Engineering and Quality Assurance departments each have PDREP reporting responsibilities required by reference (a) as follows:

a. Engineering Department (Code 200) shall report to the PDREP coordinator any waivers, deviations or departures from specification (DFS) identified by the shipbuilder to be attributed to, or resulted from a supplier performance issue. The PDREP coordinator will determine whether a waiver should be entered into the PDREP reporting system. Examples of supplier performance related waivers and deviations include (but are not limited to); incorrect items received but found acceptable for intended use; materially deficient items received but acceptable without requiring correction; or substitute items received at convenience of supplier or government.

   Deviations and waivers shall be entered into the PDREP reporting system via the following PDREP website: https://www.pdrep.csd.disa.mil

   To enter a deviation or waiver SUPSHIPs shall utilize the Special Quality Data entry module in the PDREP reporting system.

b. Quality Assurance Department (Code 300) shall report:

(1) Non-conformities identified by the contractor during receipt inspection for Government-Furnished Material (GFM) or Contractor-Furnished Material (CFM), for which GCQA has been invoked.

Once notified of a non-conformity by the contractor, SUPSHIPs will follow references (a) and (b) for the process of entering data utilizing the following deficiency modules in PDREP:

Product Quality Deficiency Reports (PQDR). Applies to the reporting of product deficiencies in new or newly reworked material in all programs involving materials or services.

Supply Discrepancy Reports (SDRs). Applies to the reporting of incorrect material substitutions, material shortages or overages and material packaging discrepancies.

Due to the fact that SUPSHIPs do not order, inspect, or receive GFM and CFM, PQDRs and SDRs are normally entered as “information only” in PDREP.

(2) Industrial Sales;

Industrial sales are items purchased from a private shipbuilder that are being sold to the Navy Supply System and accepted at the SUPSHIP on behalf of the government. Also included are items such as fixtures and tooling fabricated and shipped to Naval Shipyards, and shipboard components diverted from new construction to the Naval Shipyards. Industrial sales items are subject to PDREP reporting. The following PDREP data entry module will be utilized to report Industrial Sales:

Material Inspection Record (MIR). A document generated as the result of a technical inspection of hardware or software by a Navy representative at the manufacturer’s plant or upon receipt at destination in accordance with a Navy or local directive or instruction. For purposes of this document, a technical inspection is the performance of any test or inspection other than the validation check for count and damage.

(3) Audits and Surveys;

SUPSHIPs will enter vendor audit and survey reports into PEDREP in accordance with reference (b); this information will be entered via the Supplier Audit module or Special Quality Data entry module.

(4) Letter of Delegation (LOD);

SUPSHIPs will promulgate LODs in the method directed by the recipient of the delegation, in most cases DCMA. The preferred method of LOD issuance is to utilize the LOD module in PDREP. However, if the receiving activity does not utilize

the LOD function in PDREP, the SUPSHIP will utilize whatever process is directed by the recipient of the delegation.

(5) To the greatest extent possible NAVSEA 04Z shall track all SUPSHIP LOD activity not accomplished through the PDREP Module and retain a quarterly report to document the effort.

Appendix 9-D: Samples of Common Critical Process Metric Reporting

SUPSHIP QUALITY METRICS
COMMON CRITICAL PROCESSES
OCT-DEC 2013

	Weld Pipe		Weld Structure		Cableways		Pipe Installation		Mechanical Installation		Structural Installation		Coatings		System Cleanliness	
	3 MOS AVG	Trend	3 MOS AVG	Trend	3 MOS AVG	Trend	3 MOS AVG	Trend	3 MOS AVG	Trend	3 MOS AVG	Trend	3 MOS AVG	Trend	3 MOS AVG	Trend
SUPSHIP BATH																
DDG 51 (BIW)	0.6%		4.5%		0.0%				0.0%		3.1%		0.7%		0.8%	
DDG1000 (BIW)	0.0%		1.4%	↓	0.1%		3.6%	↑	0.0%	↓	1.3%	↓	0.6%	↓	1.7%	↑
LCS 1 (MARINETTE)	1.0%	↑	1.4%		3.2%		0.6%	↓		↑	22.3%	↑			0.8%	↓
MLP (NASSCO)			0.3%		0.4%		1.4%	↑	4.4%	↑		↑	0.4%		0.0%	
SUPSHIP GULF COAST																
DDG 51 (HII)	1.9%	↓	0.9%	↓	2.0%		0.0%		0.0%	↓	0.2%	↓	1.4%	↑	2.6%	↑
LPD 17 (HII)	2.7%	↑	1.9%	↓	1.0%		0.2%		0.0%		0.2%		3.5%	↑	1.2%	↓
LHA 6 (HII)	0.8%		0.7%	↓			0.0%				0.0%		0.0%	↓	0.6%	
LCS 2 (AUSTAL)	1.3%		0.6%	↓	0.4%		12.0%	↑			0.9%		0.0%		2.1%	↓
JHSV (AUSTAL)	1.7%		0.0%		0.4%		1.2%				0.0%		0.0%		2.6%	↑
SUPSHIP GROTON																
SSN 774 (EB)	0.0%		0.8%		0.5%		0.4%		0.0%		1.3%		1.6%		1.3%	↓
SUPSHIP NEWPORT NEWS																
CVN 78 (HII)	0.4%		0.6%		0.4%		1.8%	↓	0.0%		0.1%		0.9%		0.0%	↓
SSN 774 (HII)	0.0%		0.3%		0.3%		0.4%	↓	0.0%		0.0%		0.0%		0.8%	

<1.0% Defect Rate	> 1.0% Defect Rate	> 2.5% Defect Rate

"Grey box indicates insufficient observations"

"Up arrow indicates an increase in defect rate from previous quarter"

"Information is not to be used to compare shipbuilders or Ship Programs"

SHIPBUILDER	PROGRAM	COMMON CRITICAL PROCESS	DEFECT RATE	NATURE OF FINDINGS	SUPSHIP ACTION
Gulf Coast					

HII	**DDG 51**	System Cleanliness	**2.6%**	During routine surveillance the following discrepancies were observed on units associated with DDG 113: Found "1" pipes open ended and Shell penetrations not plugged at hole.	Method A Corrective Action Request (CAR) written and submitted to contractor. Noncompliance corrected and verified satisfactory by SSGC. SSGC will continue to monitor process through regularly schedule in-process surveillance.
	LPD 17	weld pipe	**2.7%**	End gap between pipe and fitting at final joint fitup prior to weld on type P13,14, & 15 joint design exceed acceptance criteria of contract invoked standard.	Method A Corrective Action Request (CAR) written and submitted to contractor. Noncompliance corrected and verified satisfactory by SSGC. SSGC will continue to monitor process through regularly schedule in-process surveillance.
	LPD 17	Coatings	**3.5%**	Mixing: failure to agitate paint during application. Coating Anomaly/ Workmanship: holidays, blisters, insufficient surface preparation. Documentation: missing data on inspection forms. DFT: under/over acceptance tolerances per specifications. Protection Bare Metal: failure to adequately maintain preconstruction primer coated areas.	Corrective Action Request (CARs) written and submitted to contractor. Many noncompliance have been corrected and verified satisfactory by SSGC. Current bi-weekly surveillance metric data is at less than 2% reject rate in all categorizes. SSGC will continue to monitor processes through regularly schedule in-process surveillance.
	LHA 6	Cableways		No Data due to Phase of construction	SSGC will continue to monitor processes through regularly schedule in-process surveillance.
	LHA 6	Mechanical Installation		No Data due to Phase of construction	SSGC will continue to monitor processes through regularly schedule in-process surveillance.

Appendix 9-E: Acronyms

ACO	Administrative Contracting Officer
CAQAP	Contract Administration Quality Assurance Program
CAR	Corrective Action Request
CAS	Contract Administration Services
CASREP	Casualty Report
CFM	Contractor-Furnished Material
CMO	Contract Management Office
CPARS	Contract Performance Appraisal Reporting System
DCMA	Defense Contract Management Agency
ET	Electromagnetic Testing
FAR	Federal Acquisition Regulations
GCQA	Government Contract Quality Assurance
GFM	Government-Furnished Material
GSI	Government Source Inspection
ISO	International Organization for Standardization
JFMM	Joint Fleet Maintenance Manual
LOD	Letter of Delegation
MIL-STD	Military Standard
MOU	Memorandum of Understanding
MT	Magnetic Particle Testing
NACE	National Association of Corrosion Engineering
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction

NAVSEALOGCEN	Naval Sea Systems Command Logistics Center
NBPI	NAVSEA Basic Paint Inspector
NDT	Non-destructive Testing
NSEO	Navy Special Emphasis Organization
NSTM	Naval Ships Technical Manual
NSTR	Naval Sea Systems Command Technical Representative
PDREP	Product Data Reporting and Evaluation Program
PE	Procedure Evaluation
PM	Program Manager
PNS	Portsmouth Naval Shipyard
PR	Procedure Review
PT	Liquid Penetrant Testing
PVI	Product Verification Report
QA	Quality Assurance
QAR	Quality Assurance Representative
QDE	Quality Data Evaluation
QPA	Quality Program Audit
RT	Radiographic Testing
SAP	Supplier Audit Program
SECNAVINST	Secretary of Navy Instruction
SF	Ship’s Force
SPD	Ship Project Directive
SSIC	Standard Subject Identification Code
SUBSAFE	Submarine Safety Certification Program
UT	Ultrasonic Testing

VT	Visual Inspection Testing
WTE	Work-Time-Experience

Chapter 10 – Testing, Trials and Delivery

Table of Contents

10.1 Production Acceptance Testing During Construction, Conversion and Modernization 10-4
10.1.1 Introduction 10-4
10.1.2 Governing Documents 10-4
10.1.3 Purpose for Production Acceptance 10-5
10.1.4 Administering the Test and Evaluation Program 10-5
10.1.5 General Roles and Responsibilities 10-6
10.1.5.1 Introduction 10-6
10.1.5.2 SUPSHIP Basic Functions for Tests, Trials and Evaluation Program 10-6
10.1.6 Integrated Test Package (ITP) 10-8
10.1.7 Shipbuilding Specifications 10-9
10.1.8 Test Documentation Booklet (TDB) 10-9
10.1.9 Test Index 10-10
10.1.10 Test Schedule 10-11
10.1.11 Test Organization 10-12
10.1.11.1 SUPSHIP Test Team 10-12
10.1.11.2 Test Development Directors 10-12
10.1.11.3 Test Task Group (TTG) 10-13
10.1.11.4 Test and Evaluation Automated Management Information System (TEAMIS) 10-13
10.1.12 Test Procedures 10-14
10.1.12.1 Government-Furnished Test Procedures 10-14
10.1.12.2 Contractor-Furnished Test Procedures 10-15
10.1.13 Test Witnessing 10-15
10.1.14 Test Reports 10-15
10.1.15 Test Problem Reporting and Resolution System 10-16
10.1.15.1 Test Change Proposal (TCP) 10-16
10.1.15.2 Test Problem Report (TPR) 10-16
10.1.15.3 Establishment and Control 10-16
10.1.15.4 Engineering Organizations 10-16
10.1.15.5 Documentation Changes 10-17
10.1.15.6 Multi-Shipyard Programs 10-17

10.2 Application of TSTP to Post Shakedown Availability (PSA) and Major Repair Work 10-17
10.2.1 Introduction 10-17
10.2.2 Ship System Testing (HM&E) 10-18
10.2.3 Combat System Testing 10-18

10.3 Trials and Delivery 10-19
10.3.1 Policy 10-19

10.3.2 General 10-19
10.3.3 Trials and Delivery of Ships 10-21
10.3.3.1 Builder's Dock Trials (BDT), Trial Rehearsal, and Fast Cruise 10-21
10.3.3.2 Builder's Trials (BT) 10-22
10.3.3.3 Acceptance Trials (AT) 10-23
10.3.3.4 INSURV Deficiency Criteria 10-25
10.3.3.5 Ship Systems and Equipment Demonstrations 10-27
10.3.3.6 Completion of Work 10-29
10.3.3.7 Delivery of Completed Vessels 10-30
10.3.3.7.1 Delivery Letter 10-30
10.3.3.7.2 Documenting Deficiencies in Ship's CSMP 10-31
10.3.3.7.3 Water, Fuel, and Lubricating Oil Soundings 10-32
10.3.3.7.4 Pre-Commissioning Habitability Inspection 10-32
10.3.3.7.5 Acceptance and Placing Ship in Service 10-33
10.3.3.8 Delivery of Ships and Craft for non-USN Contracts 10-34
10.3.3.9 Trials and Delivery of Ships under Maritime Administration (MARAD) Contracts 10-35
10.3.3.10 Trials and Delivery of Ships Bought for Foreign Military Sales (FMS) 10-35
10.3.4 Trials and Delivery of Boats and Other Craft 10-35
10.3.4.1 Trials and Final Inspection 10-35
10.3.4.2 Boats and Craft Procured Under Navy Appropriations 10-36
10.3.4.3 Boats and Craft Procured for Other Agencies 10-36
10.3.4.4 Delivery 10-37

APPENDIX 10-A: Procedures for the Supervising Authority's Certification of Certification of Readiness for Acceptance Trials 10-38

Appendix 10-B: Acronyms 10-39

References

(a) OPNAVINST 4700.8K, Trials, Acceptance, Commissioning, Fitting Out, Shakedown and Post Shakedown Availabilities of USN Ships Undergoing Construction, Conversion and Modernization

(b) NAVSEAINST 3960.5A, Policy on Ship Testing

(c) NAVSEA INST 4700.11, Trials, Acceptance, Commissioning, Fitting Out, Shakedown and Post Shakedown Availabilities of USN Ships Undergoing Construction, Conversion and Modernization

(d) NAVSEA S9095-AD-TRQ-010/TSTP, Total Ship Test Program Manual

(e) NAVSEA 0924-062-0010, Rev C, SUBSAFE Requirements Manual

(f) NAVSEA S9094-AE-GYD-010, Surface Ship Post-Delivery Test and Trials Guidance Manual

(g) INSURVINST 4730.1F

(h) INSURVINST 4730.2F

(i) INSURVINST 4730.11J

(j) MIL-STD 2106A, Development of Industrial Test Procedures

(k) NAVSEAINST 5400.95F, Waterfront Engineering and Technical Authority Policy

(l) COMFLTFORCOMINST 4790.3, Joint Fleet Maintenance Manual (JFMM)

(m) OPNAVINST N9080.3G

(n) OPNAVINST 4730.5R, Trials and Material Inspection on Ships Conducted by The Board of Inspection and Survey

(o) OPNAVINST 4730.7F, Material Inspection of Submarines by the Board of Inspection and Survey

(p) INSURVINST 4730.21H, AAW/DTE/SD DTE and Long Range Air Search Radar Performance Demonstrations

(q) INSURVINST 4730.22E, Standards for Surface Ship Undersea Warfare (USW) Demonstration

Figures

Figure 10-1: Major Notional Milestones During Construction/Conversion 10-21

Chapter 10 – Testing, Trials and Delivery

10.1 Production Acceptance Testing During Construction, Conversion and Modernization

10.1.1 Introduction

Reference (a), OPNAVINST 4700.8K, "Trials, Acceptance, Commissioning, Fitting Out, Shakedown and Post Shakedown Availabilities of USN Ships Undergoing Construction, Conversion and Modernization", states that the goal of the Navy's shipbuilding and modernization effort is to deliver ships to the Fleet that are capable of supporting the Navy's mission and which are free from either contractor or government responsible deficiencies. To accomplish this, the Program Management Office and SUPSHIP team conduct observations of the contractors' production processes, inspections, measurements, and testing, and assess objective quality evidence from the Contractor's Quality Management Program to assure that the ship and its equipment and systems are ready for advanced phases of testing and trials. SUPSHIP and contractor personnel must closely coordinate their efforts when preparing for and managing the Test and Trials in accordance with the terms and conditions of the contract.

The Regional Maintenance Centers (RMC) assumed responsibility, within their geographic region, for all ship maintenance work contracted for accomplishment by commercial shipyards. Contract administration functions for modernization, repair and test and trials requirements shall conform to the provisions of the Joint Fleet Maintenance Manual (JFMM) Volume VII for those SUPSHIPs who retained repair responsibility for nuclear carriers and submarines.

10.1.2 Governing Documents

The requirements for testing and evaluation during the ship construction period are to be in accordance with the contract which should include the requirements outlined in the following documents:

- NAVSEAINST 3960.5A**, "Policy on Ship Testing", reference (b)
- NAVSEAINST 4700.11, "Trials, Acceptance, Commissioning, Fitting Out, Shakedown and Post Shakedown Availabilities of USN Ships Undergoing Construction, Conversion and Modernization", reference (c)
- NAVSEA S9095-AD-TRQ-010/TSTP, "Total Ship Test Program Manual", reference (d)
- SUBSAFE Requirements Manual, NAVSEA 0924-062-0010, Rev C, reference (e)

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10.1.3 Purpose for Production Acceptance

The tests, trials, and evaluation requirements must prove that components are capable of supporting the design specifications and ship requirements when operating independently, when integrated into a system, and when operating interactively among multiple systems and interfaces. Validation of tests, demonstrations and evaluation of the ship's operating capability during trials provide objective quality evidence of the ship's true performance in attaining these required capabilities.

The stages of production acceptance testing are defined in paragraph 10.1.10. Results of "in process" production testing are reviewed to confirm that the installed equipments and systems support the readiness for trials. The "Test and Trials" phase has the goal of demonstrating that the ship is materially complete and can be presented to the Navy Board of Inspection and Survey (INSURV) for Acceptance Trials (AT) or Combined Trials (CT). OPNAVINST 4700.8K states that it is the responsibility of the President of INSURV to conduct trials as an independent verification of a ship's readiness for acceptance and delivery. Trials are also used to validate that the equipments and systems are operating satisfactorily during the guarantee period following AT and up to and including Final Contract Trials (FCT).

10.1.4 Administering the Test and Evaluation Program

SUPSHIPs' primary function within the Test and Evaluation (T&E) program is to administer the shipbuilding contract, approved ship specifications and Total Ship Test Program (TSTP) for each applicable program. The specific documents required by the TSTP that are to be produced by the contractor shall be used by SUPSHIP as a tool for monitoring technical progress during construction and for assessing the ship's readiness for INSURV Trials (Acceptance Trials, Underway Trials, Combined Trials and Super Trials). Ships shall not be considered ready for such trials unless the prerequisite tests are completed to the satisfaction of the SUSPHIP and the results of those tests support a high probability of successful trials as directed in NAVSEAINST 3960.5A**.

Each SUPSHIP has established processes that are tailored to its specific construction programs. These command instructions are used in planning and conducting a total ship test program during new construction as appropriate for either surface ships or submarines. The individual ship's Comprehensive Test Plan should describe the Navy test organization and how it interfaces with the shipbuilder. It defines the stages of testing and publishes the format for test outlines and test procedures. NAVSEA S9094-AE-GYD-010, "Surface Ship Post-Delivery Test and Trials Guidance Manual," reference (f), provides further guidance on SUPSHIP roles and responsibilities after taking delivery of the ship from the contractor.

This administration of the requirements of the TSTP includes oversight of the contractor-provided Integrated Test Package (ITP) that requires:

- reviewing test documentation for contractual compliance, including test indices, test procedures/memorandums, test schedules, test reports;

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- monitoring the test schedule, witnessing test conduct, evaluating test results;
- advising the Program Test Director and SUPSHIP Project Officer/PMR of material problems; and,
- monitoring the delivery status of both government and contractor-furnished test documentation.

10.1.5 General Roles and Responsibilities

For ship construction programs and major conversions or modernizations performed by the private sector, OPNAVINST 4700.8K states that SUPSHIP is the responsible Supervising Authority designated to prepare, certify readiness and present the ship to INSURV in preparation for delivery.

10.1.5.1 Introduction

The SUPSHIP Project Management Team, in preparation for conducting the final stages of testing during planned trials, will ensure that the ship is ready for trials by:

- Observations and reviews during in-process production work
- Witnessing pre-determined check points and performing verification inspections as specified in the Contract Administration Quality Assurance Program (CAQAP)
- Managing the requirements of the Total Ship Test Program (TSTP)
- Confirming the contractor's and government's documentation for objective quality evidence that the ship or submarine is in compliance with the shipbuilding specifications
- Administration of the terms and conditions of the contract, and
- Validating the database of all deficiencies pertaining to the ship.

10.1.5.2 SUPSHIP Basic Functions for Tests, Trials and Evaluation Program

While the PM manages the TSTP, the contactor is responsible for the development of the Integrated Test Package (ITP), Comprehensive Test Plan (CTP) and Test Procedures (TP) related to Contractor-Furnished Equipment (CFE) and /or work performed by the contractor. The government is responsible for providing test procedures and trial requirements for Government-Furnished Equipment (GFE) to the contractor for integration into the ITP. The roles of the SUPSHIP as the Naval Supervising Activity (NSA) in the test, trials and evaluation program as outlined in the TSTP include the following:

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a. The Supervisor and the Project Officer/PMR will designate a Local Total Ship Test Director (LTSTD). The LTSTD's duties, responsibilities and relationship with the PM Test Director are specified in the TSTP Manual and should be specified by the PM in the SPD or MOA when issued.

b. The PM will also appoint a Local Combat Systems Test Director (LCSTD) and a Local Ship Systems Test Director (LSSTD). According to the TSTP Manual, the LCSTD must come from Naval Surface Warfare Center, Port Hueneme (NSWCPH), and the LSSTD must come from Naval Surface Warfare Center, Carderock Division (NSWCCD). The duties and responsibilities for both are specified in the TSTP Manual and should also be specified by the PM in the Ship Project Directive (SPD) or a Memorandum of Agreement (MOA) when issued.

c. The Supervisor will chair the Test Task Group (TTG) established by the PM in accordance with the TSTP and as stated in Appendix C paragraph 4.e. The TTG established by the PM is separate and distinct from the contractually required Test and Trials Group/Joint Test Team established and typically chaired by the contractor. Some test team members will be on both groups. The TTG membership is a composition of contractor, subcontractor and government technical organization representatives and its size is based on the complexity of the contractual requirements and the Integrated Test Plan. Additionally, the SUBSAFE Requirements Manual details unique requirements for submarine new construction and major availabilities. The only positions specified by the SUBSAFE manual are the SSPD and deputy SSPD. There are no specific test positions specified by the SUBSAFE manual.

d. The LTSTD and the Test Task Group work cooperatively to resolve testing issues identified by Test Problem Reporting and Resolution (TPRR) system and will be supported by a Combat Systems Test Development Director (CSTDD) and Ship System Test Development Director (SSTDD) or their local representatives when appointed by the PM.

e. The SUPSHIP Project Management Team, in concert with the Test Team performing their contract administration responsibilities on the waterfront, is accountable for the administration and observation of the TSTP and associated stages of testing. The accountability includes reviewing the contractor's test documentation for contractual compliance including test indices, test procedures, test schedules, test reports; monitoring the test schedule; witnessing test conduct; evaluating test results; advising the Supervisor, Project Officer/PMR and PM of material problems; supporting the TTG in issue resolution, and monitoring the delivery status of both Government and contractor-furnished test documentation.

f. The SUPSHIP/PM Test Team observes the contractor's test and evaluation program for Contractor-Furnished Equipment (CFE) as specified in NAVSEAINST 3960.5A**.

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g. SUPSHIP/PM Test Team personnel are responsible for administering the operation of the Government portion of the system supporting the contractor's Ships Construction Test Manual (SCTM) when required by contract. The SUPSHIP PM Test Team coordinates all government and contractor responsible preparations that must be considered in determining that the ship is ready for presentation to the Board of Inspection and Survey.

h. The Project Officer/PMR will designate an INSURV coordinator as the point of contact for coordinating the actions of the contractor, government organizations and prospective ship's company during AT in accordance with INSURVINST 4730.1F or 4730.2F, references (g) and (h). This includes arranging for services outside of the contractor's area of responsibility in preparing for Trials and, in particular, services that require Navy assets to support the pre-underway and underway testing and trials phases.

i. The SUPSHIP representatives on the Test Task Group and Project Management Team shall identify known non-compliant work to the Board of Inspection and Survey prior to their arrival for AT as directed by INSURVINST 4730.11J, reference (i).

j. The Supervisor shall submit a report to NAVSEA 00, PEO and PM, IAW Appendix 10-A, certifying that the ship is ready for Acceptance Trials in accordance with OPNAVINST 4700.8K. The Supervisor certifies to the Board of Inspection and Survey that the ship is ready for trials.

k. The Project Management Team, consisting of SUPSHIP assigned personnel and any additional personnel provided via program funding, will carry out the actions and assigned responsibilities of the cognizant PM in accordance with the SPD or MOU and NAVSEAINST 4700.11.

l. When the Supervisor reports that the ship is ready for acceptance as stated in NAVSEAINST 4700.11 and in accordance with the recommendations of INSURV and when approved by CNO, including any requested waivers, the agent acting for the Accepting Authority, COMNAVSEASYSCOM, will accept the ship for the Navy and authorize the Supervisor to sign DD Form 250 and take delivery of the ship from the shipbuilder.

10.1.6 Integrated Test Package (ITP)

The Total Ship Test Program requires that the ship construction testing be accomplished in accordance with the contract through an orderly, validated Integrated Test Package (ITP) and through evaluation of test results during the construction of each ship. The ITP, as directed in NAVSEAINST 3960.5A**, consists of a combination of Government and contractor (shipbuilder/subcontractor) prepared tests, tailored to the mix of Government and contractor design responsibilities of each shipbuilding contract. The testing requirements are developed during the design phases and they may be refined as construction proceeds. In general, the Government's portion of the ITP involves test documentation for Government-

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Furnished Material (GFM) while the contractor's involves Contractor-Furnished Equipment (CFE). Detailed requirements for the preparation, conduct, and maintenance of the ITP are prescribed in NAVSEA S9095-AD-TRQ-010, Total Ship Test Program Manual. The requirement to comply with the TSTP Manual should be invoked in the contract typically through the Shipbuilding Specifications (Sections 090 through 95 for most ships).

10.1.7 Shipbuilding Specifications

In general, the individual technical sections set forth the requirements for individual factory acceptance tests. Some test requirements may also be levied in the specific system specification section.

All other requirements for testing are usually contained in specification sections 090 through 095 of the specifications.

10.1.8 Test Documentation Booklet (TDB)

A Test Documentation Booklet (TDB) should be prepared during contract design to define the scope of the total ship testing program for both government and contractor provided equipment and systems. The TDB should supplement specification sections 092 to 095, may invoke use of the TDB, and after contract award, it provides the baseline from which the contractor develops the test program. The TDB typically consists of:

a. Test Index: The test index provides a listing of each test procedure number and title. Typically, test procedure numbers may be cross-referenced with the test narratives of specification section 095.

b. Test Outlines: Test outlines define the scope of testing to be accomplished on GFE. When test outlines are provided, the outlines serve as the basis for Government preparation of the respective test procedure. Test outlines may also be provided for interface between CFE and GFE or for CFE which is highly complicated or of special interest to the Government. Typically, section 092 of the shipbuilding specification defines the contractor's responsibility for use of test outlines.

c. Test Sequence Networks (TSNs): The TSNs in the TDB are provided to the contractor as supplemental information that can be used in the bidding process. Following contract award, test sequence networks are provided by the contractor to establish the desired sequence of selected tests and the necessary prerequisite tests. These networks should be reflected in the contractor's test schedules. Typically, Specification Section 092 defines the extent to which TSNs are developed and used by the contractor.

10.1.9 Test Index

In accordance with the Contract Data Requirements List (CDRL), the contractor must submit a test index which provides a complete listing by test number and test title of all tests and certifications to be conducted during the Ship Test Program. This test index is derived from the government-developed TDB that is prepared prior to contract award and requirements defined in specification sections 090 to 095.

The test index reflects testing which is stratified into seven test stages as defined by Military Standard MIL-STD-2106A , Appendix A, “Development of Industrial Test Procedures”, reference (j). Although seven stages are defined, testing at each stage for each equipment and system is not always necessary. In some instances, an Engineering Process Agreement (EPA) may be executed between SUPSHIP and the Contractor for testing officially completed at land based test facilities. Official testing may be conducted at land based test facilities up to stage 3 testing. Stage three testing through stage five testing may be combined into one test procedure for certain systems. The combining will normally be in the contractor-developed test index. Stage 4 testing and above shall be conducted shipboard. Any deviation from the standard seven stage process shall first be approved by the Government. Further changes or combining of tests proposed by the contractor must be made and processed in accordance with the test requirements invoked in the contract. As outlined in the TSTP Manual, the test stages are:

a. **Stage 1 - Material Receipt Inspection and Shop Tests:** Includes those tests and inspections that provide for inventory management and physical inspection of new material, equipment and systems, and associated documentation. These tests and inspections are intended to ensure receipt of equipment in good physical condition by the shipbuilder or other industrial organization. Stage 1 documentation is not normally in the form of a test procedure.

   Stage 1 further includes those tests and inspections conducted prior to shipboard installation for new or repaired equipment or systems. In instances where equipment and systems are repaired aboard ship, shop test procedures may be used to validate readiness for shipboard testing. For work planning and cost accounting purposes, Stage 1 is not part of the test program and will normally be a part of the industrial organization's quality assurance program.

b. **Stage 2 - Shipboard Installation Inspections and Tests:** These are conducted prior to operation of installed or relocated equipment, cabling, waveguide, piping, ventilation, etc., to ensure that each installation has been accomplished in accordance with established plans and specifications. The shipbuilder or industrial organization is normally responsible for preparation of Stage 2 test procedures.

c. **Stage 3 - Equipment Tests:** Demonstrate that after shipboard installation, the individual equipment performs within established limits and tolerances. These equipment operability tests are conducted independent of the system (i.e., the

equipment may be isolated from the system) and can be conducted prior to complete system installation.

d. **Stage 4 – Intrasystem Tests:** Demonstrate that equipment and required functions, entirely within one independent system, perform within established limits and tolerances. Stage 4 testing normally consists of intrasystem functions, signals, and commands within a single independent system of the combat system or ship system. Stage 4 includes all tests involving two or more items of equipment which do not involve more than one independent system of the combat system or ship system. Stage 4 tests may include tests between two or more items of equipment and between two groups of equipment within the same “stand alone” system.

e. **Stage 5 - Intersystem Tests:** Involve testing the interfaces and interoperability between two or more independent systems within a combat system, ship system, or between the combat system and ship system. These tests demonstrate that two or more independent systems perform a specific function or functions within established standards. The exchange of intersystem signals, commands, functions and all associated computer interfaces are included.

f. **Stage 6 - Special Tests:** Require special simulation facilities or resources external to the immediate test organization, but are conducted as part of the dockside work package for the industrial effort. Special tests can apply to one or more items of equipment, a single system, or a number of systems, and may require total ship operability. Stage 6 tests that can only be performed at-sea should be designated as Stage 7. Normally, there will be very few Stage 6 tests in an industrial test program.

g. **Stage 7 - Trials Tests:** Must be conducted during sea trials (e.g., Builder's Trials (BT), Acceptance Trials (AT), Underway Trials (UT), Combined Trials (CT), Super Trials (ST), Post-Repair Trials (PRT) and Final Contract Trials (FCT)). Test procedures are not identified with a Stage 7 number unless the test can only be conducted entirely or partially at sea.

10.1.10 Test Schedule

In accordance with the CDRL, the contractor must prepare and submit a test schedule to SUPSHIP showing the dates when the tests are to be conducted. The rescheduling of individual tests because of changes in events or changes in material or other construction scheduling shall be submitted to SUPSHIP/PM Test Team as promptly as possible. To permit correction of defective work and to make necessary adjustments in sufficient time to allow completion before the trials, the installation tests of the various units should be conducted as soon as practical after installation. Also, ample time should be allowed between the tests and trials to correct defects found during the tests. Test schedules should be integrated into a Test Sequence Network (TSN).

The contractor's test schedule will be reviewed by the SUPSHIP/PM’s Test Organization to ensure that the dates shown are realistic and valid on the basis of the time allowed for

conducting the tests and the availability of the items to be tested and to ensure the dates comply with the SPD when invoked. Questions concerning the schedule should be resolved through discussion with the contractor. The contractor should develop a test report for each test procedure as it is completed during the conduct of a test program. Each test report should have the same test number as the test procedure used for test performance. Test completion is defined as the date when the test procedure has been completed. Interim Test Problem Reports (TPR) are accepted by the Government and incorporated after resolution in the completed test procedure.

10.1.11 Test Organization

10.1.11.1 SUPSHIP Test Team

The SUPSHIP/PM Test Team composition varies depending on program maturity and contract requirements, the test program size, availability of personnel and tasking from the PM. In accordance with NAVSEAINST 3960.5A**, the Test Team is headed by a SUPSHIP-appointed Local Total Ship Test Director (LTSTD) and is supported by a Local Combat Systems Test Director (LCSTD) and Local Ship Systems Test Director (LSSTD). They will team with the PM Test Director to accomplish the test program. There may be other supporting test staff depending upon the scope of the test program. In general, the SUPSHIP Test Team will administer all aspects of the waterfront test program. All personnel coming to the shipyard to perform test program work come under the control of the LTSTD even though they are not attached to the SUPSHIP.

10.1.11.2 Test Development Directors

For major ship programs, in accordance with NAVSEAINST 3960.5A**, the PM may assign a Combat System Test Development Director (CSTDD) and a Ship System Test Development Director (SSTDD) to manage the development and integration of combat systems and ship systems tests and to assist the SUPSHIP in administering the test program. For surface ships, the Naval Surface Weapons Center Port Hueneme Division (NSWC-PHD) will be assigned as the CSTDD and the Naval Surface Weapons Center, Carderock Division (NSWCCD) as the SSTDD.

During each detail design period, the assigned CSTDD and SSTDD will develop test documentation for GFE and review the appropriate contractor-developed test documentation for CFE. Such reviews will be coordinated with the responsible NAVSEA technical organizations to ensure that previously developed test procedures are cost-effectively used to the maximum extent possible for Government responsible testing. For surface ship programs, the combat system test documentation repository is at NSWC-PHD and the ship systems test documentation repository is at NSWCCD.

The PM may task the CSTDD and SSTDD organizations to provide an on-site Local Combat System Test Development Director (LCSTDD) and Local Ship System Test Development Director (LSSTDD) to assist the SUPSHIP LTSTD in administering the ship test program.

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These personnel are under the administrative control of SUPSHIP but are not part of that organization. The LCSTDD and LSSTDD will be technically knowledgeable and will function to augment the expertise of SUPSHIP and the contractor, particularly for new systems, by resolving testing problems locally or by obtaining information quickly from the cognizant organizations. They will support the LTSTD in test documentation management including test document tracking and status; technical reviews of test requirements, test indices, test procedures, test reports, schedules; and test problem reporting and resolution. The LCSTDD and LSSTDD will provide the day-to-day liaison between the SUPSHIP Test Team and the external Navy test development community.

10.1.11.3 Test Task Group (TTG)

A Test Task Group (TTG) is established at the shipyard to assist in resolving problems uncovered during the industrial test program. A functioning TTG concept provides rapid communications among organizations involved and has proven beneficial in helping to smooth test operations during the construction period. TTGs are an important, proven tool used by the SUPSHIP LTSTD to get knowledgeable and responsible personnel together to resolve test problems, identify daily and weekly test schedules, discuss status and progress, etc. TTGs are used for both combat systems and ship systems, as well as for CFE and GFE. Meetings of the TTG are usually convened separately for combat systems and for ship systems because their agendas are seldom of common interest.

The composition of a TTG meeting will vary depending on the schedule of testing and the current test problems; however, the TTG will generally be chaired by the Supervisor as stated in the TSTP with representatives of the SUPSHIP Test Team, SUPSHIP technical codes, test development organization (when tasked by the PM), and (as appropriate) Navy field activities and equipment vendors. TTG membership should be composed of personnel with direct knowledge of equipment and system details and local conditions and be in a position to define problems with specificity and to act or to recommend action to resolve problems quickly.

10.1.11.4 Test and Evaluation Automated Management Information System (TEAMIS)

The Test and Evaluation Automated Management Information System (TEAMIS) is the NAVSEA database of test and evaluation information is contained behind the NMCI firewall. TEAMIS support for a given ship test program is tasked and funded by the PM to the CSTDD because the databases physically reside at NSWC-PHD. Both combat system and ship system test documentation information are contained in the TEAMIS data bases. Information in the database is grouped into four major categories:

- Test Document Master File: Contains information on each document assigned an official test number, whether or not it is physically held in a NAVSEA repository.

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- Ship Project Files: Contains data on individual ship test programs including test conduct status, test delivery status, test problem reporting, test change proposal, and engineering change proposal tracking. In addition there are capabilities for analyzing and generating output reports for test program management.

- Point of Contact File: Identifies cognizant individuals and organizations for each different ESWBS category. Names, addresses, telephone numbers, and other useful data about each individual and the scope of responsibility for a particular ESWBS category are included.

- Action Item File: A simple database which has mailing capabilities for support in managing the various aspects of a ship test program. The SHAPM TSTD or SUPSHIP LTSTD can assign action items to involved field organizations and mail these action items by way of the electronic mail system.

In addition to the main TEAMIS functions, there are small auxiliary database files that all valid users can access including an on-line data element dictionary and the electronic mail facility.

TEAMIS Ship Project Files are normally initiated by the CSTDD and SSTDD and maintained at the waterfront by the LCSTDD and LSSTDD from inputs provided by the test development and test management organizations. Subsequently, computer output reports are generated by the LCSTDD and LSSTDD to support the LTSTD and others.

TEAMIS does not contain Aegis Ticonderoga (CG 47) Class or Arleigh Burke (DDG 51) Class New Construction test and evaluation information. Information for the former ship classes may be available from Aegis Technical Representative, Moorestown, N.J., (856) 722-3619.

Test and evaluation information for Aegis Ticonderoga (CG 47) Class or Arleigh Burke (DDG 51) Class repair availabilities may be obtained from NSWC PHD, Air Dominance Department, Code A34, Port Hueneme, CA 93043, (805) 228-7594.

Access to the TEAMIS data bases may be arranged through the CSTDD at NSWC PHD, Air Dominance Department, Code A34, Port Hueneme, Ca 93043, (805) 228-7594, or the LCSTDD at the shipyard.

10.1.12 Test Procedures

10.1.12.1 Government-Furnished Test Procedures

Test procedures prepared by the Government are based on the test outlines contained in the Test Documentation Booklet. Actual preparation of Government responsible test procedures is accomplished through the test development organization based on requirements established and directed by the PM designated TSTD. To effect standardization, test procedure format and content will be in accordance with MIL-STD-2106A, Appendix B.

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Where new equipment and systems are being developed and/or acquired for ships, the engineering process and documentation provided by MIL-STD-2106A should be invoked in contracts by the equipment/system acquisition manager.

Government-responsible test procedures are provided to the SUPSHIP LTSTD for delivery to the contractor by the CSTDD and SSTDD.

10.1.12.2 Contractor-Furnished Test Procedures

Test procedures prepared by the contractor are submitted to SUPSHIP and the test development organization in accordance with the CDRL. Review for format and content will be performed and comments/recommendations or approval provided through the LTSTD to the contractor. Standard test procedure format and content should be in accordance with MIL-STD-2106A, which is typically identified in the ship specification package section 092.

10.1.13 Test Witnessing

A test program objective is to have 100 percent of final tests witnessed by SUPSHIP or authorized Government representatives, as specified in the TSTP, paragraph 2.8.c. Each test must be conducted in the presence of such witnesses except where the SUPSHIP/PM Test Team has authorized the contractor to proceed with conducting and certifying the results of the test. No test should be started without prior notification to the SUPSHIP/PM Test Team of date and time. Notification must be provided sufficiently in advance to allow for test witness planning. Specific requirements for test notification should typically be included in specification section 092.

10.1.14 Test Reports

In accordance with the CDRL, the contractor must prepare and submit test reports and supporting data for each test procedure conducted. Test reports document the test results and findings in relation to technical specification requirements. Test reports include the test procedure with completed and signed data recording sheets, test equipment sheets, comment sheets, all data recordings which can be manually analyzed, plus the results of analysis of the raw data records taken at time of test. Generally, the signing of any data sheet by a Government test witness signifies only that the test was conducted in accordance with the approved test procedure and that test data was accurately recorded. Test data requiring technical review and acceptance by the Government shall be submitted to SUPSHIP as soon as practical upon completion of each test procedure. Unless otherwise stipulated in the contract, the contractor will usually retain the originals of all test data and make it available to SUPSHIP/PM Test Team upon request or post on the virtual office environment.

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10.1.15 Test Problem Reporting and Resolution System

10.1.15.1 Test Change Proposal (TCP)

The Test Change Proposal (TCP) is used to make changes to approved test documentation prior to actual test conduct. Test documentation changes proposed as a result of test conduct are processed and controlled through the test problem reporting and resolution system. The use of a TCP is typically provided for by Section 092 of the ship specification. The TCP is generally used to correct errors in test documentation, primarily test procedures, caused by design changes or equipment changes. A TCP is not considered to be a problem report.

10.1.15.2 Test Problem Report (TPR)

A Test Problem Report (TPR) is used to document discrepancies and problems in test documentation, equipment, or performance encountered while using specified test procedures during test conduct. A TPR is written when the test procedure cannot be performed as written. The TPR supports the problem reporting and corrective action process required by the TSTP. The use of a TPR is typically provided by section 092 of the ship specification and usually requires resolution in less than 48 hours to prevent delay and disruption. A TPR is usually handled and resolved by the Local Total Ship Test Director (LTSTD) and the LCSTDD or LSSTDD. When local resolution is not possible, the LCSTDD or LSSTDD will request technical expert assistance from the external test development organization.

10.1.15.3 Establishment and Control

An integral part of the conduct of the ship construction test program is the procedure for identification and timely resolution of problems identified during shipyard testing. When required by contact, the Ship Construction Test Manual (SCTM) requires that a shipyard test problem reporting and resolution system be established for each ship program. Such a system must be defined in the ship specification and invoked in the contract. The SUPSHIP is responsible for administering the operation of the Government portion of the system supporting the SCTM. The SUPSHIP will make every effort to resolve problems locally using the TTG and engineering services provided on-site by the PM. When formal assistance is required from external organizations, SUPSHIP will refer the problem to the engineering organizations identified by the PM designated TSTD. The test problem report form of Appendix F to the SCTM is usually used for this referral. SUPSHIP will assign response time for referred problems based on the severity and impact of the problem.

10.1.15.4 Engineering Organizations

The Program Manager is responsible for tasking Participating Managers (PARMs), other government organizations and NAVSEA 05 for any requirements that are up to and above those stipulated in NAVSEAINST 5400.95F**, Waterfront Engineering and Technical

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Authority Policy, reference (k), via the SPD or another official document, to provide engineering support, points of contact, and individuals with the authority to certify technical accuracy of proposed resolutions. The Program Manager will provide this information to the SUPSHIP in support of the TSTP. Refer to Chapter 8 of this manual for policy on Field Engineering and Waterfront Technical Authority.

10.1.15.5 Documentation Changes

The Program Manager appointed CSTDD and SSTDD work jointly with the SUPSHIP/PM Test Team and LTSTD to establish procedures to ensure that any corrections made to test documentation during the conduct of the test program are provided to the responsible test documentation development organization. This activity is normally accomplished by the LCSTDD and LSSTDD. In this way, such corrections can be incorporated into the test documentation for subsequent ships of the class and other ship programs with the same equipment and systems.

10.1.15.6 Multi-Shipyard Programs

Test problem reporting and resolution is especially critical for multi-shipyard construction test programs, since problems may affect more than one yard and the best resolution for one yard may not be the optimal outcome for another. Tracking and maintaining the status of test problems must be current and accurate. The PM will establish an integrated test problem tracking and status system to provide SUPSHIPs with current information. The SUPSHIP and the Test Team at each shipyard are tasked to provide the inputs required to maintain currency.

10.2 Application of TSTP to Post Shakedown Availability (PSA) and Major Repair Work

10.2.1 Introduction

The requirements for performing production acceptance testing is defined in NAVSEAINST 3960.5A**. The NSA will ensure that test program management and testing is accomplished in accordance with the Total Ship Test Program Manual when applicable, or as outlined in the COMFLTFORCOMINST 4790.3, the Joint Fleet Maintenance Manual (JFMM), reference (l). NAVSEA 0924-062-0010, Rev C, SUBSAFE Requirements Manual, is also applicable for major submarine availabilities. The objective in applying the Total Ship Test Program principles in a major industrial availability is to provide a test program that will effectively and efficiently assure that the work performed by all organizations was properly completed and to assess the ship's readiness to perform its mission at the completion of the industrial period when it is redelivered to the Fleet. The technical and inspection requirements to be met by the contractor are detailed in the work item specifications. Normally, both the work specification and the NAVSEA Standard Items (or other requirements) referenced in the work item must be used to determine the complete technical requirements, check points and other testing to be satisfied by the contractor. Should a private industrial activity be

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designated by contract to perform the function as the Lead Maintenance Activity (LMA), as defined in the JFMM, it is the LMA's responsibility to schedule, integrate and track all test and test results, including those of outside activities as specified in Specification Sections 092–095.

10.2.2 Ship System Testing (HM&E)

The Immediate Superior-In-Command (ISIC) will determine the requirement for Light-Off Assessments (LOAs), using the guidance in the JFMM, for ships undergoing a PSA or other types of depot level availabilities. The following Recurring Work Items (RWIs) have been established to provide guidance for obtaining the necessary contractor support and preparations for complex and non-complex LOAs. NSA will incorporate the following, as applicable, in the contract.

- NAVSEA SI 009-43 LOA "Support for Steam Propulsion System";
- NAVSEA SI 009-44-LOA "Support for Gas Turbine Propulsion System";
- NAVSEA SI 009-66 LOA "Support for Diesel Propulsion System"; and,
- NAVSEA SWI 092-02 "Pre-LOA Assistance for Contractor Support".

A Fleet Engineering Mobile Assessment Team may visit to conduct inspections onboard the ship prior to the LOA so that systems or equipment that require corrective maintenance can be identified and written into the work package.

10.2.3 Combat System Testing

Current NAVSEA guidance has established the following criteria:

a. For short availabilities, normally less than 120 days, Stage 3 (equipment tests) and Stage 4 (intrasystem tests) of the TSTP will be scheduled only for equipment and systems modified, overhauled, or repaired. Selected additional Stage 4 and Stage 5 through Stage 7 testing will be specified in the ITP to check interfaces disconnected or changed during the availability. Except for testing associated with SHIPALTs or ORDALTs, testing requirements for shorter availabilities is a TYCOM decision.

b. For longer availabilities, testing requirements will increase proportionally with the length and complexity of the combat system work. ROH and COH require Stage 3 testing of all equipment and Stage 4 intra-system and Stage 5 through Stage 7 testing of all systems to demonstrate overall combat system operability readiness. Lower level testing of equipment modified, overhauled, or repaired will be accomplished by the activity screened to perform the work item. The industrial activity should accomplish the higher level intersystem testing (Stage 5 and above). In cases where work is performed within the system by an organization other than the industrial activity (e.g., Ship's Force or

Alteration Installation Team (AIT)), the activity which performed work within the system shall support the industrial activity in the accomplishment of the higher level testing (Stage 5 and above).

These requirements are invoked in the specifications by appropriate work items based on the NAVSEA standard work item 844-series. Work Item 844-series tasks the contractor to develop a test plan, generate test sequence networks, arrange for temporary services to support testing, and manage the testing to ensure an orderly and timely completion.

10.3 Trials and Delivery

10.3.1 Policy

The Navy's primary mission, established by Public Law and reiterated in the U.S. Navy Regulations, is to conduct prompt and sustained combat operations at sea. The tasks of conducting trials and inspections of Navy ships have been established to assist the Navy in meeting its mission responsibility.

The policies and procedures that must be followed are in OPNAVINST 4700.8K and NAVSEAINST 4700.11. The policies of CNO on ship trials and delivery are as follows:

a. Ships and submarines will be fully mission-capable with all contractual and Governmental responsibilities resolved at delivery, except for crew certification (surface ships), outfitting, or special Navy range requirements which cannot be met until after delivery.

b. The Deputy CNO (Resources, Warfare Requirements & Assessment) makes the final determination of readiness for service.

c. Independent verification of readiness of surface ships and submarines for acceptance and recommendation for Fleet introduction is the responsibility of the Board of Inspection and Survey (INSURV).

10.3.2 General

Before Navy acceptance of a ship, the contractor is required to conduct a series of operating and performance trials at sea. Pre-sea trial requirements, such as dock trials, fast cruise, pre-trial audit, and combat system trial rehearsal, are required by the specifications for some ship types, particularly submarines and nuclear-powered surface ships. Section 094 of the Ship Specifications delineates the requirements for ship trials. The specific tests to be conducted during trials are contained in Section 095. Figure 10-1 contains an example of notional trials milestones for a typical new construction, conversion, or modernization ship and illustrates the sequence of trials and related events.

Trials at sea include the BTs, that are witnessed by SUPSHIP/PM (and INSURV for nuclear ship's propulsion plant) and other Navy personnel; and ATs, that are witnessed by INSURV (for other than propulsion on nuclear-powered ships) and other Government personnel. The primary purpose of BT is to demonstrate that the ship is, or will be, ready for AT. The conduct and content of the BT will, as a minimum, be the same as that intended for AT. When BT has been successfully completed, the ship, with INSURV aboard, is taken to sea for AT with satisfactory completion as a condition of the Navy's acceptance of the ship.

Terminology and content of these trials may vary in the larger shipbuilding programs; for example, AT might be used in place of BT, or BT in place of combat system trials. Specific requirements will be contained in the contract specifications. In certain programs the contract specifies that a “combined” or “super trial” be conducted that incorporates all trials up to and including AT.

Nuclear-powered ships are placed “In Service” about two weeks before start of the first sea trial. Fitting out is performed at the building yard before delivery. Before operations at sea, the ship and crew must undergo a Pre-Critical Reactor Safeguard Examination and Fast Cruise. A nuclear-powered ship is normally placed “In Commission Special” or “Commission” within several weeks of delivery. The SUPSHIP is responsible for recommending dates to COMNAVSEA for placing the ship In Service; In Commission Special; or In Commission as applicable. Nuclear-powered ships undergoing overhaul, conversion, or nuclear refueling normally remain In Commission with a crew assigned. For nuclear-powered ships, following U.S. Navy Crew Certification, BT tests requiring full power can be performed.

Ship acquisition contracts contain a Delivery of Completed Vessels clause. Under this clause, the contractor is prohibited from tendering the vessel for delivery until satisfactory completion of AT. This clause also delineates the condition of the vessel at the time of delivery. AT cannot be held without SUPSHIP concurrence that the vessel is ready for the trials.

Detailed trial requirements for a specific ship or class are found in Section 094 of the Ship Specifications. Basic guidance to SUPSHIP for conduct of trials and delivery of nuclear-powered ships is provided by OPNAVINST N9080.3G, reference (m) (issue applicable to the contract). SUPSHIP should prepare an internal instruction delineating organizational responsibilities and relationships with the Program Manager.

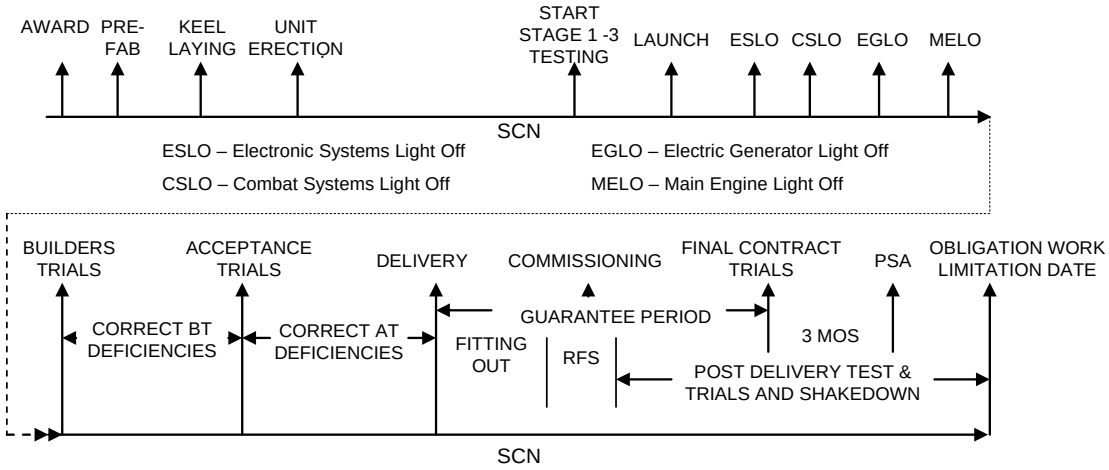

Figure 10-1: Major Notional Milestones During Construction/Conversion (Conventional propulsion)

Trials are also conducted for boats and other small craft. These trials, performed under the cognizance of a SUPSHIP, are usually not witnessed by INSURV but by a trial board. The trial board is selected by SUPSHIP at the direction of INSURV, and with the concurrence of the PM. Boats and craft require full USCG equipment during trials.

10.3.3 Trials and Delivery of Ships

10.3.3.1 Builder's Dock Trials (BDT), Trial Rehearsal, and Fast Cruise

Nuclear-powered ship's propulsion plant is operated by certified Navy personnel vice contractor personnel for conventional propulsion plants. Navy crew will operate the nuclear propulsion plant during all phases of testing and trials. Builder's Dock Trials (BDT) consist of tests conducted to determine the ability of the ship from a material standpoint to safely conduct sea trials. BDT is conducted during a 24-hour period sufficiently in advance of sea trials to correct deficiencies which would prevent the ship from safely conducting sea trials. Operational tests of machinery, equipment, and systems that have not been previously tested will be operated during sea trials.

Combat System Trial Rehearsal is a dry run of the tests and operations of the combat system that will be required during sea trials. In particular, all required navigational equipment shall be tested. The trial rehearsal should be conducted with personnel who will operate the equipment at sea. The purpose of the trial rehearsal is to validate allowed time and sequencing for the tests and to avoid surprises during sea trials. Pre-trial audit consists of operability demonstrations for a Project Management team immediately before AT.

Nuclear ships and submarines are placed "in service" prior to conduct of the Fast Cruise that is a period during which the ship is made available for dockside training for contractor personnel and/or a Navy crew immediately before initial sea trials. The fast cruise period is

typically unhampered by industrial work. No trials, tests, inspections, examinations, or work should be scheduled by the builder, Supervising Authority, or forces afloat during the fast cruise. Since successful completion of fast cruise normally will be followed within a day by commencement of sea trials, it is important to ensure the ship is ready for sea when fast cruise commences.

Before BDT or other operations of the propeller or intake, the site is to be inspected by both the contractor and SUPSHIP to ensure that no conditions exist that could damage the vessel during the trials or operations, such as shallow water and debris in the water which could damage the propellers or foul the intakes.

10.3.3.2 Builder's Trials (BT)

At sea testing is phase two of Builder’s Trials (BT) and is in accordance with the trial requirements (normally section 094) of the ship specifications. BT is required to demonstrate that the ship is seaworthy and that the equipment and systems are operational and ready for AT. BT is necessary for the proper demonstration of electronics installations, such as air search radar, fire control tracking, search and listening sonar, and similar equipment that require a land-free area and deep water in which to operate. In short, all tests and demonstrations that cannot be performed dockside are accomplished during BT.

The BT may be combined with AT, where such action is authorized. In such cases, all tests, except those requiring sea conditions, must be completed before or during the dockside test program (Stage 2 through 6).

In accordance with the CDRL requirements, the contractor must give SUPSHIP advance notice of BT and provide a trial agenda and schedule of events indicating tests the contractor plans to conduct. SUPSHIP is responsible for providing copies of applicable BT/AT test memoranda and procedures to INSURV one month before BT.

Before starting BT, all conditions required by Section 094 (or equivalent trial section) of the ship specifications will have been met. Every reasonable effort must be exerted to meet all conditions. If unusual circumstances preclude such timely accomplishment, the SUPSHIP and contractor agree, and COMNAVSEA approves proceeding with BT without one or more of the conditions having been met fully (all safety item conditions must be met fully), the trials may proceed if the facts are documented and a system is established to ensure timely resolution of the waived item(s).

SUPSHIP is responsible for ensuring that the contractor carries out all contractual requirements of the trials. Although one BT is generally sufficient for surface ships, other trials may be necessary to satisfy SUPSHIP that the ship is ready for AT.

The contractor is responsible for supplying a competent trial crew to operate the ship during BT, except for submarines and nuclear-powered ships, including a licensed master for the waters to be navigated and a qualified chief engineer for the horsepower and tonnage of the ship. For ships other than submarines and nuclear-powered ships, the contractor is

responsible for providing a qualified radio operator and obtaining necessary frequency authorization from the Federal Communications Commission (FCC) for use of commercial ship-to-shore and ship-to-ship channels during trials. If Navy channels are used, approval must be obtained from CNO or NAVSEA and a qualified Navy operator must supervise the use. In the absence of such authority, or if no qualified Navy operator is available, the contractor's crew must include a licensed commercial operator and must operate on the frequencies assigned by the FCC.

SUPSHIP should review and approve the list of personnel not employed by the contractor (i.e., subcontractor representatives or vendors) whom the contractor desires to have onboard at the time of trials. For nuclear-powered ships, this review is performed by SUPSHIP and NAVSEA. Before the trials, SUPSHIP should furnish the contractor with a list of all Government personnel who will be onboard the ship as observers. Subject to the limits of available berthing and messing facilities, SUPSHIP representatives attend the trials to witness the operation of all equipment and to observe the recording of the required data. The Pre-commissioning Commanding Officer (PCO) of conventional-powered ships and certain key personnel also attend to become acquainted with the operating details of electronic, weapons, and machinery installations.

During BT, a simulated INSURV inspection will be conducted in accordance with the guidelines of INSURVINST 4730.1F for surface ships and INSURVINST.2F for submarines. The contractor will function as the presenting authority and SUPSHIP/PM Test Team will function as INSURV. Electronic Trial Cards will be utilized to document known non-compliant discrepancies, including items identified in outstanding Quality Deficiency Reports/Corrective Action Reports. Deficiencies disclosed during all trials will be documented on Electronic Trial Cards and the status maintained in the management data base. After completion of BT, SUPSHIP will notify COMNAVSEA and INSURV of the results of the trials and of any deficiencies (including operational equipment not onboard) that cannot be corrected in time for AT. The SUPSHIP report certifying the ship is ready for AT will generally be in accordance with SOM Appendix 10-A.

10.3.3.3 Acceptance Trials (AT)

This section discusses the SUPSHIP responsibilities on conduct of Acceptance Trials (AT) in general terms, detailed requirements are set forth in:

- OPNAVINST 4730.5R, “Trials and Material Inspection on Ships Conducted by The Board of Inspection and Survey”, reference (n)
- OPNAVINST 4730.7F, “Material Inspection of Submarines by the Board of Inspection and Survey”, reference (o)
- INSURVINST 4730.1F, “Trials and Inspections of Surface Ships”, reference (g)
- INSURVINST 4730.2F, “Trials and Material Inspections of Submarines”, reference (h)

- INSURVINST 4730.11J, “Documentation of Deficiencies”, reference (i)
- INSURVINST 4730.21H, “AAW/DTE/SD DTE and Long Range Air Search Radar Performance Demonstrations”, reference (p)
- INSURVINST 4730.22E, “Standards for Surface Ship Undersea Warfare (USW) Demonstration”, reference (q)

The AT requirements should be detailed in section 094 (or equivalent trial section) of the shipbuilding specifications.

The Board of Inspection and Survey (INSURV) is responsible for witnessing the AT. The purpose of the trial is to determine whether the ship has been completed in accordance with the contract specifications and is operationally ready. The AT is also an opportunity to verify that the product:

- conforms to the design and manufacturing requirements of the contract
- is free from all defects in materials and workmanship
- will conform to the performance requirements of the contract
- will meet the mission requirements as outlined in the Operational Requirements Document/Capability Development Document (CDD) from OPNAV

Depending on the trial results, the INSURV board either recommends acceptance of the ship or requires additional trials at a later date when specific deficiencies have been corrected. The board's recommendation to accept delivery may be conditioned upon completion of certain work items before the delivery. In this event, the Accepting Authority must be assured that these items are completed before acceptance takes place. Generally, when a return inspection is impractical or unnecessary, the board delegates responsibility to the SUPSHIP for determining that work is completed and reporting this to the accepting authority.

Under the Delivery of Completed Vessel clause, the contractor must satisfy three requirements before the acceptance trials, as follows:

a. Correction of all contractor-responsible defects discovered before completion of BT unless otherwise agreed to by the Administrative Contracting Officer (ACO);

b. Correction of all contractor-responsible defects discovered after BT that will adversely affect the operational capability of the vessel as defined in the clause; and

c. Certification to and concurrence of SUPSHIP that the vessel is ready for AT.

The contractor must notify INSURV via the SUPSHIP of the proposed date for AT in accordance with the CDRL. The SUPSHIP should forward the contractor's letter with the SUPSHIP endorsement only when the SUPSHIP concurs that the vessel is ready or can reasonably be expected to be ready for the trials. The letter and endorsement are directed to the President of INSURV with a copy to NAVSEA. OPNAVINST 4700.8K requires SUPSHIP to recommend trial dates to the President of INSURV and to keep the President informed of any necessary changes. Any deficiencies in the material readiness of the ship to join the Fleet must be noted by SUPSHIP in the endorsement of the contractor's letter. Subsequently, the SUPSHIP should maintain liaison with INSURV and progress the ship to ensure that the SUPSHIP still concurs with the contractor's certification that the vessel is ready for AT.

Depending on CDRL requirements, the contractor must provide a trial agenda approximately 60 days before the trial. The agenda outlines the tests and demonstrations to conduct and contains a chronological schedule of events, including all Stage 7 (at sea) tests. The SUPSHIP reviews the agenda and schedule to determine whether successful completion of the proposed tests will demonstrate that the ship fulfills the contract requirements and whether the proposed schedule is feasible and free of conflicts. At least 30 days before the trials, SUPSHIP forwards all documentation required by various INSURV instructions, including a Trial Agenda, to INSURV. The agenda represents only a fundamental set of demonstrations. Additional tests and demonstrations will be requested by INSURV inspectors, if necessary, to pinpoint deficiencies when unsatisfactory or marginal performance is observed.

When INSURV arrives for AT, SUPSHIP will provide the attending recorder with the certificates and other information required by INSURVINST 4730.1F (surface ships) or INSURVINST 4730.2F (submarines). The certificates are prepared by the contractor and approved by SUPSHIP. SUPSHIP approval may be based on review of the contractor's quality control system and records, as well as on direct observation by Government inspectors. SUPSHIP will present the following certificate to INSURV:

> *In construction/activation of (SHIP NAME) the contract plans and specifications, circular of requirements, activation requirements and authorized changes thereto have been satisfactorily fulfilled, except as noted below (summarized by Departments; if none, so state).*

All known deficiencies at the time of arrival of the INSURV Board Members will have been recorded on Electronic Trial Cards and are presented to the respective Board Members. The Board Members will verify the existing deficiencies. All emergent or observed discrepancies during attendance at the trials will be recorded utilizing the format of the Electronic Trial Card and will be input into the management database of trial deficiencies.

10.3.3.4 INSURV Deficiency Criteria

INSURV uses standards set forth in such documents as the installation drawings, electronics installation and maintenance books, technical manuals, Planned Maintenance System

(PMS)/Resource Management System (RMS) requirements, and general arrangement drawings to evaluate the completeness of a ship for acceptance and measure a ship's readiness to carry out assigned mission requirements in accordance with the CPD or ROC/POE specified by CNO and the ship building specifications. INSURV uses standard Navy references and procedures typically employed throughout the system. The following criteria for identifying and classifying deficiencies are used:

a. In general, deficiencies are items which require corrective action to bring the material condition or system performance of the ship into compliance with the required standards. These include:

- Failure of equipment to meet performance or safety requirements;
- Requirements for excessive maintenance resources;
- Incomplete or unsatisfactorily completed installations, equipment, equipage, repair parts, publications, or plans;
- Incomplete or unsatisfactorily completed inspections, certifications, or tests;
- Conditions in violation of current environmental pollution standards;
- Deficiencies still outstanding from previous INSURV trials;
- Deficiencies which require corrective action by maintenance activities other than the contractor or the subcontractor(s); and
- Deficiencies in Planned Maintenance, such as missing, incomplete, or inaccurate MRCs, or inadequate support due to lack of test equipment, tools, lubricants, or special materials required to perform PMS.

b. Deficiency forms will be prepared in the Electronic Trial Card format or in accordance with INSURVINST 4730.11J. Deficiency forms on minor items (for example, painting and broken vent handles) are not desired in accordance with Chapter 9, Contract Administration Quality Assurance Program. Furthermore, only items outstanding at the time of the inspection should be included.

c. A deficiency may exist at the outset or may occur as the result of a casualty during the course of a trial. Either case will be documented as a deficiency. If a deficiency is corrected during a trial, the deficiency will be documented as a deficiency and annotated as (corrected).

d. Arrangements for personnel to attend AT should be the same as those made for BT. The number of observers should be limited to avoid interference with the ship's operating personnel and with the functions of INSURV.

e. Suitable accommodations, including adequate space to conduct conferences during the trials, should be provided for the INSURV board members. Gear, equipment, and other items required by the board are described in INSURVINST 4730.1F and INSURVINST 4730.2F.

f. The contractor must provide a qualified organization with sufficient technical, operating (for non-nuclear-powered ships), and data-taking personnel to demonstrate that equipment and machinery meets performance specifications. Data-taking responsibilities involve:

- Observation and collection of data and preparation of test reports;
- Preparation of all trial forms;
- Establishment of a trial board room with ample personnel for recording and computing data (not applicable for submarines);
- Provision of a means for expeditious posting of current results; and
- Preparation and publication of complete trial data.

g. For installed systems and equipment, the contractor must provide:

- A single coordinator for demonstrations;
- Sufficient qualified technical personnel to ensure satisfactory performance of equipment; and
- Sufficient qualified personnel to operate and demonstrate the capability of the equipment to meet performance specifications.

10.3.3.5 Ship Systems and Equipment Demonstrations

SUPSHIP will review the qualifications of the contractor's proposed trial crew to demonstrate equipment capabilities, giving particular attention to the qualifications of radar, sonar, and target tracking operators; ship-to-military aircraft communications personnel; and communication supervisors and operators if U.S. Navy communication facilities are to be used during the trials. When techniques peculiar to the military are involved and SUPSHIP considers requiring the contractor to furnish qualified crew members to be unreasonable, SUPSHIP will arrange for Navy personnel to assist the contractor in demonstrating the operational capabilities of the particular equipment.

SUPSHIP is responsible for arranging and scheduling the services of naval aircraft and ships necessary in testing radar and other shipboard equipment during trials as prescribed by INSURVINST 4730.1F and INSURVINST 4730.2F. In making these arrangements, the aircraft organization should be informed in detail on what the exercises will consist of and

how and when the exercises will be conducted. SUPSHIP is also responsible for arranging and scheduling shore station support for exterior communications tests.

SUPSHIP should ensure that various items of trial equipment, electronic test equipment, instruments, or other apparatus required by the contract are installed in the ship before trials. In addition, the condition of the ship must meet the requirements of the trial section (usually section 094 of the ship specifications) of the ship specifications. After the trials, the necessary precautions should be taken to prevent damage to any trial equipment belonging to the Government; such equipment should be removed and carefully packed and shipped by the contractor in accordance with the contract terms.

AT includes comprehensive operating tests, Stage 7 defined by section 092 of the ship specifications, as well as material inspections to determine the ship conforms with the contract requirements. INSURVINST 4730.1F and INSURVINST 4730.2F outline the many tests and demonstrations required; the board may prescribe other tests and demonstrations as circumstances warrant. The board also may request that copies of purchase specifications for specific items of equipment be made available for verification of specification requirements. Use of the contractor's files on return to port will normally suffice.

SUPSHIP is responsible for coordinating the actions of the contractor and prospective ship's company during AT, as illustrated below:

a. The contractor's representatives and the inspectors from SUPSHIP office should check the draft of the vessel to verify that trial displacement is in accordance with contract requirements. The adequacy, operation, and cleanliness of the lubricating oil installation should be examined. All main propulsion equipment, main gear, and shaft bearings should be inspected for abnormal temperatures and the smoothness of operation should be observed, checking any noise and vibration. All valves should be tested for ease of handling and proper operation. The location of ladders, gratings, and other compartment and access arrangements should be checked to ensure that these arrangements permit satisfactory operation of and accessibility to the machinery installation and equipment. Inspection should be made for steam, water, and oil leaks.

b. After completing AT, all steam connections should be checked to ensure these are thoroughly drained.

c. Within 30 days of completion, SUPSHIP should submit to NAVSEA a copy of the recorded information on submarine hydraulic systems tests obtained during the dock trials and sea trials.

d. Disassembly of machinery to permit post-trial examinations will be as specified by INSURV. Before the board leaves the ship upon return from sea, SUPSHIP should obtain a letter covering the post-trial examination or an advance copy of the list of machinery installations to be opened for the post-trial examination from the INSURV board. The PCO's representative should be present as the various pieces of machinery

are opened. Before delivery of the ship, the contractor should clean the machinery and systems required by the contract.

e. SUPSHIP is responsible for developing and classifying items of remaining work identified on the Electronic Trial Cards for presentation to INSURV on arrival for the trials, in accordance with INSURVINST's 4730.1F, 4730.2F, and 4730.11J. SUPSHIP classification of work items is a preliminary classification only. Final identification of all deficiencies is the function of INSURV as outlined in INSURVINST 4730.11J. The board's action is formally set forth in the board's trial report subsequently submitted to the President of INSURV, CNO, NAVSEA, and other interested Navy activities.

f. The NAVSEA representatives, PM and SUPSHIP's personnel work together to review the board's final deficiency list and provide advance authorization to correct the deficient items as appropriate before delivery. SUPSHIP's Trial Coordinator prepares a formal list of the trial deficiencies that includes the board's classification and numbering system and the action prescribed by the NAVSEA representative and distributes the list to the INSURV board, PM and NAVSEA Codes. The INSURV board incorporates the SUPSHIP list by reference and prepares the formal report/"quick look report". NAVSEA issues a final action letter that changes, adds to, or confirms the preliminary action indicated on the SUPSHIP list. After reviewing the formal list of trial deficiencies, the contractor provides to the SUPSHIP a list of contractor-responsible items to which the contractor takes exception. SUPSHIP then forwards the contractor's comments with recommendations to NAVSEA for resolution.

g. All items classified by INSURV as single starred items must be accomplished before delivery of the vessel, unless a waiver is granted by CNO or the board amends the classification.

h. Double starred deficiencies are applicable only to ships constructed, converted, or modernized with a separate fitting-out period assigned away from the building site. Double starred deficiencies must be corrected before the ship is moved from the building site, unless a waiver is granted by CNO or the board amends the classification.

10.3.3.6 Completion of Work

SUPSHIP is responsible for ensuring that the required work is satisfactorily accomplished. At the time of delivery, the contractor must submit written comments on all items remaining on the work list; these comments should appear in the delivery letter. The contractor's comments may be in the following form, as appropriate:

Contractor will forward to the ship as soon as received.

Contractor is unable to complete at his shipyard before delivery of the ship and requests that the work be done by the fitting out yard and treated as a change under the contract.

Contractor does not consider this item to be part of the specifications of the contract.

The delivery letter should also contain similar comments by SUPSHIP concerning items for which the Government is responsible.

10.3.3.7 Delivery of Completed Vessels

When the contract contains the Delivery of Completed Vessels clause, the contractor cannot tender the ship for delivery until all contractor-responsible deficiencies discovered before or after completion of the acceptance trial that will adversely affect the operational capability of the vessel, as defined in the clause, are satisfactorily corrected. The clause also requires that the contractor and the ACO agree on the manner of correcting outstanding contractor-responsible defects remaining after delivery of the vessel. If agreement is not reached, the defects may be corrected as directed by the ACO. Acceptance of delivery of the vessel is recommended by INSURV, and this recommendation is sent to COMNAVSEA (the accepting authority), SUPSHIP, and other interested Navy activities. The accepting authority responsibilities assigned to COMNAVSEA will typically be carried out by agents acting for the Commander, NAVSEAINST 4700.11. Normally, the Supervisor will sign the DD 250. The accepting authority is designated by CNO to accept delivery on behalf of the Government. Ship contracts can require delivery to be made at a Naval Ship Yard (NSY) or, for nuclear-powered ships, at the contractor's plant.

After completion of the work required by INSURV, SUPSHIP notifies NAVSEA by letter that the ship is ready for delivery. SUPSHIP also prepares a letter to the contractor instructing the contractor to deliver the ship; however, this letter is not forwarded until NAVSEA so directs. NAVSEA, as required by NAVSEAINST 4700.11, will request the TYCOM to conduct the pre-commissioning habitability inspection required by OPNAVINST 4700.8K.

For surface ships not fitted out in the building yard, SUPSHIP will:

a. Obtain from the contractor the itinerary and schedule for the transit of the vessel to the delivery point, and provide the schedule to CNO (N-8) and appropriate Fleet Commanders.

b. Ensure that the contractor has obtained the necessary clearances required to enter and clear any port planned to be visited enroute to the delivery point.

10.3.3.7.1 Delivery Letter

A delivery letter, RCS NAVSEA 9000-1, is prepared by SUPSHIP and addressed to the accepting authority, COMNAVSEA, with copies to the PCO, the outfitting activity, the Type Commander (TYCOM), the Defense Finance and Accounting Service (DFAS), and the applicable Financial Information Processing Center (FIPC) (DFAS and FIPC need only receive the cover letter without enclosures). The delivery letter will supply the following information:

a. The authority for delivery of the ship;

b. The proposed date and place of delivery;

c. A statement that the ship was constructed in accordance with the contract specifications, subject to any special conditions explained in the letter or its enclosures; and

d. Other pertinent comments, such as the rights of the Government under the "Guarantee" clause of the contract and the need for prompt information on the occurrence of guarantee defects.

e. The following information will also be included as enclosures to the delivery letter:

(1) A list of incomplete or unsatisfactory work at the time of delivery for which the contractor is responsible;

(2) A list of incomplete or unsatisfactory work at the time of delivery for which the Government is responsible;

(3) A statement on the status of changes at the time of delivery;

(4) A list of the INSURV work items completed before delivery; and

(5) A list of the INSURV work items not completed before delivery.

10.3.3.7.2 Documenting Deficiencies in Ship's CSMP

Automated Ships Maintenance Action Forms (OPNAV Form 4790/2K) should be prepared and submitted as enclosures to the PCO letter that identifies each INSURV work item, as a remaining deficiency, at the time of delivery. The following data element blocks on the OPNAV Form 4790/2K should be completed:

BLOCK NAME	BLOCK NO.	DATA FIELD
Ship's UIC	1	5
Ship's Name	A	Unlimited
Hull Number	B	Unlimited
Equipment Noun Name	5	16
INSURV Number	19	14
	20	14
	21	14
	22	14
	23	14
	24	14
Remarks/Description	35	1200/300 per form/ Max. of four forms

All other data elements on the OPNAV Form 4790/2K will be left blank for completion by Ship's Force, as applicable, and entry into the Ship's Maintenance and Material Management (3-M) System for construction of the ship's baseline Current Ship Maintenance Project (CSMP) file.

Twenty-four hours before a ship's departure from the builder's yard, SUPSHIP will advise COMNAVSEA of the proposed movements of the ship. SUPSHIP will advise CNO and NAVSEA by naval message immediately of departure of the ship.

The representative of SUPSHIP, the PCO, and the contractor should report at the delivery point to the agent for the accepting authority (COMNAVSEA). The normal agent for the accepting authority is SUPSHIP. The Supervisor will sign the receipt (DD Form 250) for the ship. A copy of the receipt will be provided to the PCO.

10.3.3.7.3 Water, Fuel, and Lubricating Oil Soundings

For surface ships, soundings of water, fuel, and lubricating oil tanks should be taken and checked by representatives of SUPSHIP, the PCO of the ship, and the contractor for purposes of determining the fluids left onboard at the time of delivery. Depending on contract language, the results of these sounding will result in either a bill to the contractor for the deficit amount of each commodity that is not provided in full by contract requirement or a bill to the government for the amount remaining onboard. Contract requirements are the determining factor in establishing a course of action. Upon commissioning, the ship becomes part of the active Fleet, and no reimbursement from Fleet accounts for fuel remaining onboard is required. The fuel remaining onboard is considered part of the investment cost of ship procurement in accordance with the DoD FMR Volume 2A, article 010201.

Lubricants left onboard may be of two varieties and will be handled as follows:

a. Bulk lube oil left onboard follows the same general guidelines as above, and can be included as part of the contract requirements. If not included as part of the contract, the contractor will be reimbursed for the bulk lube oil left onboard, chargeable to the ship's outfitting allotment established with SCN funds.

b. Contractors will be advised to off-load packaged lube oil before delivery of the ship to the Navy. In no instance will reimbursement be made to the contractor for packaged lube oil left onboard ship at time of delivery.

10.3.3.7.4 Pre-Commissioning Habitability Inspection

The timeframe relative to delivery for placing a ship in service or in commission varies with ship type (i.e., surface, submarine or nuclear-powered) and is defined in OPNAVINST 4700.8K. In all cases, a pre-commissioning habitability inspection is a prerequisite to placing the ship in service or in commission and a pre-commissioning habitability inspection required by OPNAVINST 4700.8K is conducted by the TYCOM. The purpose of this inspection is to

ascertain whether or not the crew living and messing spaces are clean, safe, and ready to receive the crew; the purpose is not to conduct a detailed review of compliance with technical requirements such as performed by INSURV during AT. Pre-commissioning habitability inspection deficiencies must be corrected or resolved by action of SUPSHIP before commissioning or placing the ship in service (active or special). SUPSHIP will review the inspection deficiencies to determine action required, responsibility, and cost; it will forward recommendations for each deficiency to NAVSEA.

10.3.3.7.5 Acceptance and Placing Ship in Service

When SUPSHIP has been authorized to accept delivery of a ship and to commission or place the ship in service special, the procedures described above should be followed as closely as possible. In addition:

a. COMNAVSEA will be requested to issue movement orders for the ship;

b. SUPSHIP will arrange to have the ship commissioned or placed in service immediately following acceptance;

c. The acceptance and commissioning or placing in service of a ship will be reported immediately to NAVPERS, INSURV, and NAVSEA;

d. SUPSHIP will obtain a receipt for the ship and the material aboard and issue a receipt to the contractor or develop a memorandum of understanding, if necessary, to describe the responsibilities of each party when responsibility cannot be totally transferred;

e. The PCO will be informed of the need to arrange for official representation funds from the cognizant Commanding Officer, Naval Base (COMNAVBASE);

f. The contract provisions specify the requirements for delivery of the vessel when under its own power or under tow. When the vessel is under its own power, the size and qualifications of the crew are specified, as well as requirements for renewal of oil filters, purification or replacement of lubricating oil, and non-operation of the vessel during foul weather. If the vessel is under tow, the contract requirements specify a towing crew, condition of the vessel, and prohibitions against the vessel being part of a multiple tow.

Conventional-powered ships built or converted at private shipyards are placed in commission at the direction of CNO soon after delivery; fitting out is generally accomplished at the contractors facilities. An assigned readiness-for-sea period is provided so the PCO/CO can prepare the ship for sea without outside interferences. At the end of the readiness-for-sea period, the ship reports to the cognizant Fleet Commander for shakedown and preparation for final contract trials. The shakedown period is primarily intended for training and for operations at sea, including any tests and trials not previously conducted. During shakedown, tactical data are obtained; and standardization trials, structural test firings of newly installed armament, and other operations are also conducted. As a result, shakedown frequently reveals unsatisfactory items and deficiencies not previously detected.

10.3.3.8 Delivery of Ships and Craft for non-USN Contracts

At the time of delivery, SUPSHIP will furnish the following information for each craft delivered to the Army and the Air Force:

a. Items to be included in the delivery letter:

(1) Authority for delivery of the ship or craft;

(2) Proposed date and place of delivery;

(3) A statement that the ship or craft was constructed in accordance with the contract, including a list of the contract number and the numbers of all contract modifications applicable; applicable specifications and all amendments; contract and working drawings; the latest alterations applicable; INSURV work items completed before delivery; and INSURV work items not completed before delivery; and

(4) A statement that all United States Coast Guard (USCG), American Bureau of Shipping (ABS), U.S. Public Health Service certificates, and the ship's inventory and allowance lists (for Navy type ships) have been prepared and distributed as required by the contractual documents.

b. Items to be included in the appendix to the delivery letter:

(1) A list of incomplete or unsatisfactory work at the time of delivery for which the contractor is responsible;

(2) A list of incomplete or unsatisfactory work at the time of delivery for which the Government is responsible (explicit information will be provided on the action taken by SUPSHIP to correct such deficiencies);

(3) If a shortage list is not prepared, a list of allowance items not onboard for which the contractor is responsible (explicit information will be furnished on the action taken by the contractor to supply the missing material); and

(4) If a shortage list is not prepared, a list of allowance items not onboard for which the Government is responsible (explicit information will be furnished on the action taken by SUPSHIP to correct such deficiencies).

c. Distribution of copies of the delivery letter will be made as follows:

(1) Original to consignee

(2) Two copies to the cognizant Navy office(s)

(3) Additional copies as designated in the contract

10.3.3.9 Trials and Delivery of Ships under Maritime Administration (MARAD) Contracts

The MARAD maintains and activates ships for the Government under contracts administered by MARAD representatives. Trials are conducted for these ships under the joint supervision of the MARAD Trial Board and INSURV in the same manner as Navy-conducted trials. When assigned by NAVSEA as the Navy liaison officer with MARAD, the SUPSHIP must prepare and submit work lists to INSURV for further presentation to the MARAD Trial Board.

On successful completion of the trials and after consideration of MARAD inspectors' lists of uncompleted work, MARAD informs INSURV whether MARAD intends to accept the ship and the proposed date of delivery. The requirements for acceptance of the ship are that:

- The ship satisfies the contract requirements and has successfully passed the required trials, tests, and inspections;
- When the Navy and MARAD have agreed that certain Navy work items will be accomplished during the building or conversion period, such work has been accomplished; and
- Specific current MARAD requirements, such as drydocking and provision of repair parts, have been fulfilled.

On certification from MARAD that the requirements have been fulfilled, the senior member of INSURV authorizes acceptance of delivery of the ship. Delivery and acceptance take place in a manner similar to the delivery and acceptance under Navy contracts.

10.3.3.10 Trials and Delivery of Ships Bought for Foreign Military Sales (FMS)

The trials and delivery of ships built for foreign Governments will generally follow procedures used for USN ships. Specifics for each case must be tailored to the requirements of the recipient country and the terms of the FMS case as represented in the contract.

10.3.4 Trials and Delivery of Boats and Other Craft

10.3.4.1 Trials and Final Inspection

Trials and final inspection are required for most boats and craft. This includes BT/AT. The conduct of these trials and the final inspection, though not necessarily observed by INSURV, must conform to the same high standards established by the board.

Before the trials begin, the CDRL and the craft specifications generally require the contractor to submit a trial agenda and a schedule of events showing the operations and tests the contractor proposed to conduct in order to demonstrate compliance with the contract. SUPSHIP reviews the agenda and may add or delete requirements, as appropriate. Other procedures followed by SUPSHIP are similar to those used by INSURV in the trials of ships.

For example, INSURV procedures for the classification of work items are normally followed with single starring of items to indicate work that must be accomplished before delivery.

10.3.4.2 Boats and Craft Procured Under Navy Appropriations

For boats procured under a Navy appropriation, ATs are conducted on the first boat of a type produced under the contract. These trials are witnessed by a trial board appointed by SUPSHIP. After completion, SUPSHIP submits a trial report for action by NAVSEA to review the report and promptly advise SUPSHIP of NAVSEA's action on the work items list, indicating whether the action is applicable to all subsequent boats under the contract. As necessary, SUPSHIP issues field changes (within SUPSHIP approval limits) covering contractor-responsible items that are not to be corrected by the contractor before delivery and any Government-responsible work that the contractor is to perform.

Trials of subsequent boats of the same type under the contract are conducted by SUPSHIP trial board or by regularly assigned SUPSHIP inspection personnel, as SUPSHIP may determine. Reports on these trials need not be submitted to NAVSEA for action; however, any new work items included in the reports will be submitted to NAVSEA by letter if SUPSHIP considers that the items are not the contractor's responsibility. On the other hand, work items that differ from those on the first boat under the contract and that are clearly the contractor's responsibility do not require NAVSEA action.

10.3.4.3 Boats and Craft Procured for Other Agencies

Unless otherwise directed by NAVSEA, trials must be conducted for each boat and craft procured for other agencies for which SUPSHIP is ACO; these trials must be witnessed by a SUPSHIP-appointed trial board. The following procedures apply to trial board reports:

a. Within two working days after completion, SUPSHIP will forward a preliminary report of the trials to NAVSEA, the PM and customer (as applicable).

b. Within two working days after receipt of the report, NAVSEA will take preliminary trial authorization action. This action will be addressed to SUPSHIP with a copy sent to the other agency or other requiring activity, as appropriate.

c. Promptly after submission of the preliminary trial report, SUPSHIP will forward a complete report of the trials to the other agency or other requiring activity via NAVSEA.

d. On receiving the complete trial report, NAVSEA will endorse the report to the consignee, pointing out specific major deficiencies and indicating final NAVSEA authorization. A copy of NAVSEA endorsement will be forwarded to SUPSHIP. Where major deficiencies occur, NAVSEA will also submit recommendations for correcting those deficiencies.

10.3.4.4 Delivery

On satisfactory completion of the work items that must be completed before delivery, SUPSHIP directs the contractor, by letter, to ship or deliver the boat or craft according to the terms of the contract. At the time of delivery, the contractor should list and comment on all uncompleted work items for which the contractor is responsible, stating the reasons for non-completion or requesting that the work items be completed by the Government at the contractor's expense. At the same time, the contractor must submit a completed DD Form 250. SUPSHIP prepares and forwards a delivery letter to the receiving activity with a copy to NAVSEA.

APPENDIX 10-A: Procedures for the Supervising Authority's Certification of Certification of Readiness for Acceptance Trials

1. Upon completion of Builder's Trials (BT) and no less than 10 working days prior to Acceptance Trials (AT), the Supervising Authority will submit a message report to COMNAVSEASYSCOM stating that the vessel is certified ready in all respects for the scheduled AT. This report will address the following items:

   (a) Describe Compartment Completion:

   Tanks and Voids - ( ) of ( ) closed - out and accepted;

   Habitable/accessible Spaces - ( ) of ( ) closed - out and accepted.

   Include a description as to the completeness of ship control and propulsion spaces.

   (b) Verify that the prerequisite Stage 3, 4, 5, and 6 tests of the Integrated Test Package have been successfully completed and that it is expected that shipboard systems will perform successfully during AT.

   (c) Identify the percentage of supply load-out/fitting-out and indicate any significant shortfall.

   (d) Verify the BTs have been successfully completed and significant construction deficiencies have been corrected.

   (e) Verify that the applicable system and subsystem certification requirements have been accomplished.

   (f) Identify other deficiencies not addressed above which may have a detrimental impact on the conduct of AT.

2. If in the judgment of the Program Manager, the deficiencies identified in the certification message seriously jeopardize the success of AT, the Program Manager will delay the trial until the deficiencies are corrected. In this case, a recertification of readiness by the Supervising Authority is required.

Appendix 10-B: Acronyms

ABS	American Bureau of Shipping
ACO	Administrative Contracting Officer
AIT	Alteration Installation Team
AT	Acceptance Trials
BDT	Builder's Dock Trials
BT	Builder's Trials
CAQAP	Contract Administration Quality Assurance Program
CDD	Capability Development Document
CDRL	Contract Data Requirements List
CFM	Contractor Furnished Material
CNO	Chief of Naval Operations
CO	Commanding Officer
COH	Complex Overhaul
COMFLTFORCOMINST	Commander, Fleet Forces Command Instruction
COMNAVBASE	Commanding Officer, Naval Base
COMAVSEASYSCOM	Commander, Naval Sea Systems Command
CPD	Capabilities Production Document
CFE	Contractor Furnished Equipment
CSMP	Class Standard Maintenance Plan
CSMP	Current Ship Maintenance Project
CSTDD	Combat Systems Test Development Director
CT	Combined Trials

CTP	Comprehensive Test Plan
DFAS	Defense Finance and Accounting Service
DoD	Department of Defense
DoD-STD	Department of Defense Standard
EPA	Engineering Process Agreement
ESWBS	Expanded Ship Work Breakdown Structure
FCC	Federal Communications Commission
FCT	Final Contract Trials
FIPC	Financial Information Processing Center
FMS	Foreign Military Sales
GFM	Government Furnished Material
HM&E	Hull, Mechanical and Electric
IAW	In accordance with
INSURV	Board of Inspection and Survey
INSURVINST	Board of Inspection and Survey Instruction
ISIC	Immediate Superior in Command
ITP	Integrated Test Package
JFMM	Joint Fleet Maintenance Manual
LCSTD	Local Combat Systems Test Director
LMA	Local Maintenance Activity
LOA	Light Off Assessment
LSSTD	Local Ship Systems Test Director
LTSTD	Local Total Ship Test Director
MARAD	Maritime Administration

MOA	Memorandum of Agreement
MRC	Maintenance Requirement Card
NAVPERS	Navy Personnel Command
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction
NMCI	Navy/ Marine Corps Intranet
NSA	Naval Supervising Activity
NSWCCD	Naval Surface Weapons Center Carderock Division
NSWC-PHD	Naval Surface Weapons Center-Port Hueneme Division
NSY	Naval Ship Yard
OPNAVINST	Chief of Naval Operations Instruction
PARM	Participating Manager
PCO	Pre-Commissioning Commanding Officer
PEO	Program Executive Office
PM	Program Manager
PMR	Program Manager's Representative
PMS	Preventive Maintenance System
PMS/RMS	Planned Maintenance System/Resource Management System
PRT	Post Repair Trials
PSA	Post Shakedown Availability
RMC	Regional Maintenance Center
ROC/POE	Required Operational Capability/Projected Operational Environment
ROH	Regular Overhaul
RWI	Recurring Work Items

SC,N	Ship Construction, Navy
SCTM	Ship Construction Test Manual
SHAPM	Ship Acquisition Program Manager
SPD	Ship Project Directive
SSTDD	Ship Systems Test Development Director
ST	Super Trials
SUBSAFE	Submarine Safety Certification Program
SUPSHIP	Supervisor of Shipbuilding, Conversion and Repair, USN
T&E	Test and Evaluation
TCP	Test Change Proposal
TDB	Test Documentation Booklet
TEAMIS	Test and Evaluation Automated Management Information System
TP	Test Procedures
TPR	Test Problem Report
TPRR	Test Problem Reporting and Resolution
TSN	Test Sequence Network
TSTP	Total Ship Test Program
TTG	Test Task Group
TYCOM	Type Commander
USCG	United States Coast Guard
USN	United States Navy
USW	Under Sea Warfare
UT	Underway Trials

Chapter 11 – Property Administration

Table of Contents

11.1 Scope 11-3
11.1.1 Definitions 11-3

11.2 Providing Government Property to Contractors 11-4
11.2.1 Property 11-4
11.2.2 “Cash Sales” Procedures 11-5

11.3 Contractor Use and Rental of Government Property 11-5

11.4 Administration of Government Property 11-6
11.4.1 Contractual Clauses 11-6
11.4.2 Responsibilities and Duties 11-6
11.4.2.1 Oversight of Contractor Operations 11-6
11.4.2.2 Transfer of Government Property Between Contracts 11-6
11.4.2.3 Annual Property Administration Plan and Report 11-7
11.4.2.4 Reports 11-7
11.4.2.5 Training 11-7
11.4.3 Reutilization and Disposal 11-8
11.4.3.1 Excess Property 11-8
11.4.3.2 Plant Clearance Programs 11-8
11.4.3.3 Disposal of Hazardous Material/Hazardous Waste 11-8
11.4.3.4 Disposal Actions Resulting from Engineering Changes 11-9
11.4.3.5 Determining Excess Need and Value 11-9

11.5 Responsibilities of the Contractor 11-10

11.6 Repair or Modification of Government-Furnished Property 11-10

Appendix 11-A: Acronyms 11-11

References

(a) Federal Acquisition Regulations (FAR)

(b) Defense Federal Acquisition Regulation Supplement (DFARS)

(c) Navy and Marine Corps Acquisition Regulation Supplement (NMCARS)

(d) NAVSEA Contracts Handbook (NCH)

(e) DoD Guidebook for Contract Property Administration

(f) Defense Acquisition Workforce Improvement Act (DAWIA), 10 USC 1701

(g) NAVSEAINST 4408.2A, Shipbuilding Conversion, Navy (SCN) Consolidated Residual Asset Management Program (SCRAMP)

(h) OPNAVINST 5090.1D, Environmental Readiness Program Manual

Chapter 11 – Property Administration

11.1 Scope

Government property administration is accomplished in accordance with specific contract requirements and the following primary directives:

- Federal Acquisition Regulations (FAR), reference (a), Part 45
- Defense Federal Acquisition Regulation Supplement (DFARS), reference (b), Part 245
- Navy and Marine Corps Acquisition Regulation Supplement (NMCARS), reference (c), Part 5245
- NAVSEA Contracts Handbook (NCH)**, reference (d), Part 45
- DoD Guidebook for Contract Property Administration, reference (e)

The information in this chapter provides additional guidance to be used in the application of the various requirements for Government property administration. Note that the terms of the contract take precedence over other directives.

FAR Part 45 identifies the requirements contractors must satisfy for the management and use of Government property and the functional relationship of the Government Property Administrator (GPA). These requirements are incorporated into the clause at FAR 52.245-1.

11.1.1 Definitions

Per FAR Parts 45.101 and 52.245-1, Government Property includes all property owned by or leased to the Government, and includes both Government-Furnished Property (GFP) and Contractor-Acquired Property (CAP). Government Property includes material, equipment, special tooling, special test equipment and real property. Government Property does not include intellectual property and software. Definitions of types of government property are found in FAR Part 45.101 and 52.245-1. The following paragraphs provide key additional information.

Government furnished property (GFP) means property in the possession of, or directly acquired by, the Government and subsequently furnished to the contractor for performance of a contract. GFP also includes CAP if the CAP is a deliverable under a cost contract when accepted by the government for continued use under the contract. The Government maintains title to all the GFP in fixed-priced and cost-reimbursable contracts.

Material means property that is consumed or expended during the performance of a contract like component parts of a higher assembly or items that lose their individual identity through

** Denotes secure hyperlink requiring NMCI/CAC access

incorporation into an end-item. Material does not include equipment, special tooling and test equipment or real property.

Contractor acquired property (CAP) means property acquired, fabricated, or otherwise provided by the contractor for performing a contract and to which the Government has title. Per FAR 52.245-1(e)2-3, in fixed price contracts, title vests in the government for all property acquired or fabricated by the contractor in accordance with the financing provisions or other specific requirements for passage of title in the contract. In a cost-reimbursement contract, the Government takes title to all CAP that is reasonable, allocable, allowable, and directly charged to the contract.

Equipment means a tangible item that is functionally complete for its intended purpose, and needed for the performance of a contract. Equipment does not include material, real property, special test equipment or special tooling.

Special Test Equipment and Special Tooling are fully defined in FAR 2.101. In general, special test equipment is used to accomplish special purpose testing in performing a contract. Special tooling refers to tools of such a specialized nature that without substantial modification, their use would be limited to the production of particular supplies, parts or to the performance of particular services. Both of these items are considered government property.

11.2 Providing Government Property to Contractors

11.2.1 Property

Under FAR 45.102, contractors are ordinarily required to furnish all property necessary to perform Government contracts. The Navy provides property to a contractor when necessary to achieve significant economy, standardization, expedited production or when otherwise in the Government's best interest. If contractors are provided Government property, the Navy is required to ensure that the requirements of FAR Part 45 are met.

In new construction contracts, any Government Furnished Property is identified in the List of Attachments; section J of the contract, usually according to the following schedules:

Schedule A: GFP property installed in or furnished with the end item

Schedule C: Government Furnished Information (GFI) essential for the installation, test, operation and interface support of Schedule A

Schedule D: Government Furnished Special Tooling, Special Test Equipment, and equipment used in the fabrication or assembly of the end item, but not delivered as part of the end item

Schedule E: Installation and Check-out spares that are used during testing and sea trials

Outfitting material provided as GFM is usually identified by NAVSUP Weapon System Support (WSS) in the Coordinated Shipboard Allowance List (COSAL), which is considered to be part of the contract. In repair and overhaul contracts, GFM is usually identified by the planning activity in the schedule of the contract or the contract specifications.

During the performance of the contract, if the contractor has difficulty in obtaining contractor-furnished material for contract use, the Government has three primary options:

Issue a supplemental agreement authorizing substitute material (with no degradation or increase in contract price and appropriate reduction in price if substitution results in lower overall cost to contractor).

Authorize the contractor to obtain the required CFM through the "cash sales" procedure in accordance with the procedures of FAR, NMCARS, and NAVSUP guidance.

Issue a supplemental agreement converting the CFM to GFM with a decrease in contract price and release of any government responsibility for delay or disruption if subsequent material is not received in a timely manner. This method should only be used as a last resort.

The SUPSHIP Property Administrator should ensure that the contractor's approved Property Control Procedures address special considerations when any of the three options is used.

11.2.2 “Cash Sales” Procedures

NAVSUP manuals contain procedures to permit contractor purchase from Navy sources, as well as providing direction to the ACO for developing local instructions on use of the cash sales method. Each purchase is approved and monitored by a NAVSUP Fleet Logistic Center (NFLC). The SUPSHIP Property Administrator must ensure that the contractor has specific procedures to address requests for cash sales purchases, as well as procedures for receiving and tracking of cash sales material to ensure that all Navy policies and requirements for control, use, and return (if required) of cash sales material are met. The SUPSHIP Property Administrator will include a review of the contractor’s procedures during the analysis of the contractor’s property control system. The contracting officer authorizes the contractor to acquire supplies or services from a Government supply source by including the clause at FAR 52.251-1, Government Supply Sources, in the contract.

11.3 Contractor Use and Rental of Government Property

FAR 45.3 prescribes policies and procedures for use and rental of Government property. The decision to rent or not to rent Government property is made by the Procuring Contracting Officer (PCO) of the contract and included in the Request for Proposal (RFP). Government property shall normally be provided on a rent-free basis in performance of the contract under which it is accountable or otherwise authorized. Non-government use is on a rental basis. Use on contracts other than the contract for which originally intended may be on a rental basis depending on contract type or benefit to the government. The Government

Property Administrator must be aware of any rental clauses, since utilization rates for the property must consider Government and non-Government utilization.

11.4 Administration of Government Property

11.4.1 Contractual Clauses

The principle contractual clause for government property administration is FAR Part 52.245-1. When FAR Part 52.245-1 is invoked, FAR 52.245-9 must also be included per FAR 45.107(c). The GPA should review each contract to verify that the applicable government property contractual requirements are included, and in the absence of required clauses or conflicting language in a contract, the Contract Data Package Recommendation/Deficiency Report, DD Form 1716, should be issued to ensure corrective action is taken.

11.4.2 Responsibilities and Duties

Property Administrators (PAs) and Plant Clearance Officers (PLCOs) are authorized representatives of the Commanding Officer, and are appointed in writing. Personnel designated as GPAs are primarily responsible for the administration of the contractual and technical aspects of Government property provisions, terms and conditions of Government contracts. Plant Clearance Officers administer the clearance of excess Government property from the contractor's stewardship account. Property Administrators may also serve as Plant Clearance Officers. The selection, appointment, and termination of appointment of PAs and PLCOs shall be made in accordance with DFARS 201.670.

FAR Part 45 and the DoD Guidebook for Contract Property Administration fully address the duties and responsibilities of the Property Administrator in detail. The following paragraphs provide some key information.

11.4.2.1 Oversight of Contractor Operations

FAR 52.245.1 requires contractors to have a system to manage Government property in their possession that satisfies all the requirements of the clause, to include extensive and detailed administrative requirements regarding Government property. The SUPSHIP PA must plan, develop and perform required property management system audits to assure the adequacy of the contractor's property management system. The PA must review contracts to understand contract requirements, ensure inclusion of appropriate clauses, and that all types of government property are appropriately identified and considered in property administration oversight.

PAs are required to notify the Contracting Officer and other appropriate government personnel in the event of the contractor's failure to perform in accordance with contractual requirements or in the event of excessive or improper acquisition by the contractor.

11.4.2.2 Transfer of Government Property Between Contracts

Per FAR 45.103, agencies shall ensure maximum practical reutilization of contractor inventory for Government purposes. Contracting Officers must ensure that transfer of

Government Property from one contract to another occurs only when firm requirements exist under the gaining contract per FAR 45.102. Transfers should be accomplished in accordance with instructions in the gaining contract when present. Such transfers are documented by modifications to both gaining and losing contracts. The transferred property is considered GFP to the gaining contract. The warranties of suitability of use and timely delivery of GFP do not apply to property acquired or fabricated by a contractor and subsequently transferred to another contract with the same contractor.

11.4.2.3 Annual Property Administration Plan and Report

At the beginning of the fiscal year, the SUPSHIP PA shall schedule Property Control System analyses of contractors actively performing contracts with the property clause invoked. The PA determines the schedule and extent of analysis required based on the contractor's system's complexity, self-assessment methods, risk and other factors as appropriate. Per the DoD Guidebook, a Property Management Systems Audit (PMSA) is to be accomplished as frequently as conditions warrant, or at a minimum every three years.

11.4.2.4 Reports

Upon completion of a Property Management System Audit, the PA shall document findings and recommendations in a report to the Contracting Officer. If significant deficiencies are identified, the Contracting Officer shall promptly make an initial written determination, notify the contractor in writing with a description of each significant deficiency, and require a written response from the contractor to address them within 30 days. The Contracting Officer, in consultation with the PA, shall evaluate the contractor's corrective action plan. In accordance with DFARS 252.242.7005 and 252.245.7003, the Contracting Officer will evaluate the contractor's response and notify the contractor in writing of the Contracting Officer's final determination. If the final determination is to disapprove the system, the Contracting Officer will withhold payment as prescribed.

SUPSHIP PAs need to internally track disposition of contractor inventory. The DD Form 1638, Report of Disposition of Contractor Inventory, can be used or SUPSHIPs can use a local form or spreadsheet to account for disposed property. The report should be used to explain major increases or decreases in value of excess property reported, where dispositioned, and amount of time to disposition. Excess property reutilized on other Government jobs or contracts at the contractor facility should not be reported.

11.4.2.5 Training

All SUPSHIP PAs and PLCOs will satisfy the mandatory training course requirements for their certification level as required by the Defense Acquisition Workforce Improvement Act (DAWIA), 10 USC 1701, reference (f).

11.4.3 Reutilization and Disposal

11.4.3.1 Excess Property

FAR 45.6 establishes policies and procedures for the reporting, reutilization and disposal of contractor inventory excess to contracts. FAR 52.245-1(j) directs contractors to identify Government Property when it is no longer needed to perform the contract. PAs and PLCOs should work with contractors to ensure excess Government Property is identified by timeframes established within the contract or as determined by FAR. Timeliness in disposal of excess Government Property is important.

11.4.3.2 Plant Clearance Programs

The Navy has established plant clearance programs to expedite and increase reutilization and disposal of excess material. Navy programs include the Shipbuilding and Conversion Navy (SCN) Consolidated Redistributable Asset Management Program (SCRAMP) to achieve maximum utilization of Ready for Issue (RFI) residual outfitting material associated with Navy shipbuilding programs. SCRAMP material is shipped the SUPSHIP to a central warehouse operated by the Mid-Atlantic Regional Maintenance Center (MARMC). The receiving, stowage, issue and inventory management of material is accomplished using the Real-time Reutilization Material Management (RRAM) system. RRAM subsequently provides the Fleet, Naval Shipyards, Warfare Centers and SUPSHIPs with visibility and access to these SCRAMP assets. NAVSEAINST 4408.2A, reference (g), provides SCRAMP details and procedures. Another Navy program, Ready Resource Material (RRM), is used by the SUPSHIPs to promote reutilization of residual nonstandard stock/part number RFI items (less Level 1, nuclear propulsion, hazardous, classified, ammunition and firearms, medicinal items, cylinders, construction items, Depot Level Repairables (DLRs) and expiring shelf life items). The RRM program is similar to SCRAMP in that SUPSHIPs forward their non-standard RFI assets to a central warehouse where they are also made visible and accessible through the RRAM program. The RRM warehouse is operated by Commander Naval Air Forces. Navy programs that are appropriate for the particular type of excess material to be disposed should be utilized. Disposition of property should follow procedures in DFARS 245.6. The Plant Clearance Automated Reutilization Screening System (PCARSS) is a program developed by the Defense Contract Management Agency (DCMA) that automates the process for reporting, screening, requisitioning, and disposing of excess Government Property located at contractor facilities.

11.4.3.3 Disposal of Hazardous Material/Hazardous Waste

The distinction between hazardous material and hazardous waste is important, particularly regarding the disposal actions. OPNAVINST 5090.1D, “Environmental Readiness Program Manual,” reference (h), provides the following definitions:

- Hazardous Material (or hazardous substance) (HAZMAT): Any material which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may pose a substantial hazard to human health or the environment when released or spilled.

- Hazardous Waste (HW): Any liquid, solid, or gaseous waste material that, because of quantity, concentration, or physical or chemical characteristics, may:
    - Cause or significantly contribute to an increase in mortality or to a serious and irreversible or reversible but incapacitating illness; or
    - Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed, or otherwise managed. This excludes infectious and radioactive waste; if infectious or radioactive wastes are mixed with an EPA/state-regulated hazardous waste, then the hazardous constituents remain regulated as a hazardous waste. HW does not include HAZMAT with an expired shelf life unless designated as such by the Defense Reutilization Marketing Service (DRMS).

Coordination between the SUPSHIP PLCO and the SUPSHIP Environmental Manager is necessary to ensure that excess HAZMAT and HW are properly identified for disposition actions in accordance with contract requirements and federal, state, and local environmental regulations.

11.4.3.4 Disposal Actions Resulting from Engineering Changes

Under fixed-price contracts, engineering changes may result in CFM becoming excess to the requirements of the contract. In such cases, the excess material becomes government-owned if no credit is provided during the pricing of the Engineering Change Proposal (ECP). If the contractor has already purchased material to perform a part of the contract covered by the fixed-price, and that part is changed so that the contractor can no longer use the material, the engineering change will normally identify the material for purchase by the Government.

The contractor should have a system to ensure that the material is identified to the PLCO as excess Government material. The PLCO then follows normal procedures to dispose of the material.

11.4.3.5 Determining Excess Need and Value

The Government’s need for the excess property should be considered in determining disposition since there is a cost to the Government associated with disposal actions. Contractor needs for the excess property may also be considered as well as any "value" to be credited to the contract if the contractor retains the property. The determined value of the excess property needs to be based on practical business judgments and fair market considerations.

a. Excess Government property under fixed-price and cost-reimbursable type contracts is comprised of different elements.

    1. Under fixed-price type contracts, all excess GFP and property for which title

vests in the Government in accordance with financing provisions is considered to be Government property and must be disposed of through the Government PLCO.

2. In cost-reimbursable contracts, all excess GFP and excess CAP accountable to the contract is considered Government Property and reported for disposition.

3. Fixed-price incentive contracts require a more involved process to distinguish excess Government Property to be disposed through the plant clearance process from excess contractor-owned property for contractor actions. The contractor is required to provide the Government a list of all residual property on fixed-price incentive contracts. The Contractor shall deliver or make such other disposal actions as directed by the Contracting Officer. If the Government authorizes the Contractor to take title to all or any part of such property, the contract must be credited for the fair market value of the property.

11.5 Responsibilities of the Contractor

Specific contract requirements determine responsibilities of the contractor. FAR 52.245-1 requires contractors to properly manage Government Property in its possession, and to establish and implement processes, systems and procedures necessary for its effective control. The SUPSHIP PA must be aware of unique or additional contract provisions to ensure that the contractor adjusts his Government Property control system to meet special requirements.

11.6 Repair or Modification of Government-Furnished Property

When Government property is furnished to a contractor and is received in a condition not suitable for its intended use, the Contracting Officer shall, upon the contractor's timely written request, advise the contractor on a course of action to remedy the problem. Upon completion of the required actions, an equitable adjustment in the contract price and other provisions may be necessary. PAs may be called upon to verify the stated condition and to support contracting personnel to determine estimates on an equitable adjustment. Any modifications to Government Property shall be in accordance with FAR 52.245-1.

Appendix 11-A: Acronyms

ACO	Administrative Contracting Officer
ADP	Automated Data Processing
CAM	Contractor Acquired Material
CAP	Contractor Acquired Property
CFM	Contractor Furnished Material
CIRS	Contractor Inventory Redistribution System
COSAL	Consolidated Onboard Ship's Allowance List
CPMS	Contract Property Management System
DASN(ACQ)	Deputy Assistant Secretary of the Navy for Acquisition
DAWIA	Defense Acquisition Workforce Improvement Act
DFARS	Defense Federal Acquisition Regulation Supplement
DoD	Department of the Defense
DRMS	Defense Reutilization Marketing Service
ECP	Engineering Change Proposal
FAR	Federal Acquisition Regulation
FISC	Fleet Industrial Supply Center
GFI	Government Furnished Information
GFM	Government Furnished Material
GFP	Government Furnished Property
HAZMAT	Hazardous Material
HW	Hazardous Waste
IPE	Industrial Plant Equipment

IUID	Item Unique Identification Registry
MARMC	Mid-Atlantic Regional Maintenance Center
NAVICP	Naval Inventory Control Point
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction
NAVSUP	Naval Supply Systems Command
NCH	Naval Sea Systems Command (NAVSEA) Contracts Handbook
NMCARS	Navy and Marine Corps Acquisition Regulation Supplement
OPNAVINST	Chief of Naval Operations Instruction
PA	Property Administrator
PCARSS	Plant Clearance Automated Reutilization Screening System
PLCO	Plant Clearance Officer
RFI	Ready for Issue
RRAM	Real-time Reutilization Asset Management
RRM	Ready Resource Material
SCN	Shipbuilding and Conversion, Navy
SCRAMP	Shipbuilding and Conversion, Navy Consolidated Redistributable Asset Management Program
STE	Special Test Equipment
USC	United States Code
USD(AT&L)	Undersecretary of Defense (Acquisition, Technology and Logistics)

Chapter 12 – Environmental, Safety, and Health

Table of Contents

12.1 Introduction 12-3

12.2 Environmental Protection 12-3
12.2.1 Background 12-3
12.2.2 General Policy 12-4
12.2.3 SUPSHIP Responsibilities 12-4
12.2.3.1 SUPSHIP Commanding Officers 12-4
12.2.3.2 Manager for Environmental Protection 12-4
12.2.3.3 Environmental Self-Assessment 12-5
12.2.4 SUPSHIP Contract Oversight Functions 12-5
12.2.4.1 Hazardous Waste 12-6

12.3 Safety and Occupational Health (SOH) 12-6
12.3.1 Background 12-6
12.3.1.1 NAVSEA Guidance 12-7
12.3.2 SUPSHIP Responsibilities 12-8
12.3.2.1 Manager for Safety and Occupational Health 12-8
12.3.3 Policy Guidance 12-8
12.3.3.1 Inspections and Self-Assessments 12-9
12.3.3.2 SUPSHIP Oversight Functions 12-9

Appendix 12-A: Acronyms 12-11

References

(a) OPNAVINST 5090.1D, Environmental and Natural Resources Program Manual

(b) OPNAV M-5090.1, Environmental Readiness Program Manual

(c) NAVSEA Environmental, Safety and Health Oversight Program Guidance

(d) Federal Acquisition Regulations (FAR)

(e) 1970 Occupational Safety and Health Act (OSHACT)

(f) 29 CFR 1910, Occupational Safety and Health Standards

(g) OPNAVINST 5100.23G, Navy Safety and Occupational Health (SOH) Program Manual

(h) NAVSEAINST 5100.15B, NAVSEA Occupational Safety and Health (OSH) Program Policy and Guidance

(i) 10 U.S.C 7311, Handling of Hazardous Waste in the Repair or Maintenance of Naval Vessels

(j) NSTM S9086-AA-STM-010/CH-001R45, Chapter 074 Volume 3, Gas Free Engineering

(k) National Fire Protection Association Standard 306 (NFPA 306), Standard for the Control of Gas Hazards on Vessels

(l) 29 CFR 1915, OSH Standards for Shipyard Employment

Chapter 12 – Environmental, Safety, and Health

12.1 Introduction

This chapter outlines Navy policies and SUPSHIP responsibilities with regard to the protection of the environment, the safety and health of government personnel, and the safety of government property in private shipyards. This chapter focuses on the environmental, safety, and health (ES&H) matters as they relate to the mission of the SUPSHIPs to administer ship construction and ship repair contracts. It is not intended as guidance for the full scope of ES&H matters generally applicable to DoD and Navy activities.

NOTE: Although SUPSHIPs are primarily responsible for contract oversight and not regulatory compliance, they must not ignore their responsibilities within the Federal Government regarding safety and the environment. SUPSHIP personnel who are aware of any major or willful contractor violation of federal, state, or local laws and regulations (e.g., significant oil spill, hazardous waste dumping, and recurring/major unsafe work practices) shall report these violations to the SUPSHIP Manager for Safety and Environmental Programs. The Manager for Environmental Programs will advise the Supervisor and NAVSEA 04R.

12.2 Environmental Protection

12.2.1 Background

Reference (a), OPNAVINST 5090.1D, the Environmental Readiness Program Manual, describes the Navy's Environmental Protection (EP) Program and establishes Navy policy for conducting operations in an environmentally sound manner. The goals of this program are to comply with the existing federal, state, and local environmental laws and regulations, conserve natural resources, prevent pollution, clean up existing waste sites, and facilitate the development and introduction of new technologies that will support these goals.

As federal facilities, SUPSHIP personnel are responsible and liable for compliance within their areas of control. In addition, the Navy may be determined to be responsible for activities that occur in private shipyards associated with the construction, repair, and modernization of Navy vessels.

Although there are a myriad of laws and regulations pertaining to environmental protection, OPNAV M-5090.1, the Environmental Readiness Program Manual serves as the principle document governing Navy EP policy and compliance, including:

- a comprehensive overview of the Navy EP Program
- procedures for implementing federal law, e.g., the National Environmental Policy Act (NEPA) and Emergency Planning and Community Right to Know Act (EPCRA)

- detailed information on specific EP programs, including Pollution Prevention, Hazardous Waste Management Ashore, and Environmental and Natural Resources Training

12.2.2 General Policy

This section delineates policy guidance established by OPNAVINST 5090.1D for SUPSHIP implementation of the EP program. It contains a brief overview of inspections, liabilities, specific elements, and limitations of the EP mission. In accordance with this directive, SUPSHIP personnel are to perform their duties in compliance with federal, state, and local laws, as well as Navy regulations and directives. Navy EP regulations, unless contractually invoked for shipboard applications, do not apply to contractors. Except as noted at the beginning of this chapter, SUPSHIPs performing their contract administration responsibilities will not directly assume an enforcement role with respect to contractor EP program management, either by contract language or administrative or personnel actions, unless directed by higher authority.

12.2.3 SUPSHIP Responsibilities

12.2.3.1 SUPSHIP Commanding Officers

The Supervisor, as the commanding officer of the SUPSHIP, is responsible for ensuring that the SUPSHIP mission is accomplished in accordance with applicable federal, state, local, and Navy environmental protection laws and regulations. Specific EP Program areas which should be addressed include, but are not limited to:

- establishment of an appropriate environmental management system and organization
- reduction in internal hazardous materials usage
- oversight of contractor and ship's force hazardous materials and hazardous waste management efforts
- acquisition pollution prevention
- environmental self-assessments
- management of any government-furnished material or equipment (GFM/GFE) under SUPSHIP cognizance
- collection and reporting of data for contractor award fees and past performance data bases
- interface with ship's force to ensure compliance with applicable requirements
- when applicable, performing generator duties for Navy-generated hazardous wastes
- ensuring appropriate environmental controls are in place for new construction warranty work on homeported vessels

12.2.3.2 Manager for Environmental Protection

The Manager for Environmental Protection reports to the Supervisor and may be combined with the position of Manager for Safety and Occupational Health. Primary functions include:

- developing, implementing, managing, and evaluating local policy and directives to address the requirements defined above
- advising the Supervisor on EP matters
- serving as the single point of contact on EP issues
- interfacing with contractor, regulator, and other Navy personnel on EP issues
- developing and providing training for personnel
- submitting required EP reports

12.2.3.3 Environmental Self-Assessment

OPNAVINST 5090.1D requires shore activities to conduct an internal assessment of installation processes, facilities, and practices within a 12-month period. These self-assessments promote a system of *self-discovery* as a means of alerting activity management to significant ESH issues, regulatory compliance status, and ESH program performance concerns. Reference (b), NAVSEA Environmental, Safety, and Health Oversight Program Guidance, permits NAVSEA field activities to develop their own self-assessment model and establishes the minimum standards to be addressed. SUPSHIPs must add applicable state and local regulatory requirements as specific attributes to ensure compliance with issues applicable to the individual SUPSHIP. SUPSHIPs must conduct these environmental self-assessments annually, unless they are exempted from this requirement by the cognizant Naval Facilities Engineering Command (NAVFAC) Engineering Field Division and NAVSEA. The result of the self-assessment is a report to the Supervisor that allows the command to evaluate its own environmental compliance posture and its overall environmental management. In addition, SEA 04R will request a copy of the self-assessments by official letter in preparation for the Environmental, Safety, and Health Compliance Review (ESHCR) and the NAVSEA Performance and Compliance Inspection (NPCI).

12.2.4 SUPSHIP Contract Oversight Functions

SUPSHIPs perform contract oversight, not enforcement, of contractor environmental programs. This oversight is limited to ensuring compliance with contractual requirements. The contractors are responsible for compliance with applicable federal, state, and local environmental regulations in their facilities. Contractual deficiencies are brought to the contractor's attention for correction. Non-contractual deficiencies identified by SUPSHIP personnel shall be informally reported to the contractor. The SUPSHIP shall conduct more in-depth oversight in the event that significant or recurring deficiencies are identified, or in the event that the contractor fails to take appropriate corrective action within a reasonable time.

Correction of EP deficiencies in contractor workplaces, whether at the contractor's facilities or a Navy facility, is the contractor's responsibility. SUPSHIPs may employ the Corrective Action Request (CAR), in accordance with Chapter 9 of this manual, to bring deficiencies to the attention of the contractor. These CARs should be titled "Environmental Deficiency

Report" to differentiate them from other types of deficiencies reported in a CAR. These CARs shall also be considered as supporting documentation for evaluation of contractor performance for award fee determination and, when applicable, as past performance data for consideration in award of future contracts.

SUPSHIPs shall coordinate with other Navy commands, whether shore facilities or ship commanding officers, when contracts under SUPSHIP administration require work on Navy property to ensure contractor compliance with applicable Navy facility requirements.

12.2.4.1 Hazardous Waste

SUPSHIPs are to ensure that handling, storage, transportation, and disposal of hazardous wastes associated with ship construction and repair contracts are in accordance with contractual requirements and all federal, state, and local regulations. Reference (c), FAR 52.223-3, and the Alternate I clause of that same paragraph, provide additional guidance on the management and disposal of hazardous waste. States often differ in their specific procedures for issuing Environmental Protection Agency generator numbers and disposal procedures for hazardous waste generated at private and governmental facilities. The SUPSHIP shall establish a Memorandum of Agreement (MOA) with ship's force to define responsibilities for disposal of hazardous and infectious wastes generated by the ship. Ship's force-generated wastes are not subject to regulation as hazardous wastes while the wastes are on-board the ship. The disposition of hazardous waste generated by actions of the contractor will be under the contractor's Hazardous Waste Generator Identification Number. Co-generated waste will carry the signature of both activities.

12.3 Safety and Occupational Health (SOH)

12.3.1 Background

It is Navy policy to enhance operational readiness and mission accomplishment by establishing an aggressive and effective Safety and Occupational Health (SOH) Program. The goals are to reduce job-related injuries, material damage, and to maintain healthy working conditions. Occupational safety addresses control of hazards which can result in immediate injury or death. Occupational health is primarily concerned with the identification and minimization of exposure to hazardous chemical, biological, and physical agents.

The Navy's SOH Program embraces reference (d), the 1970 Occupational Safety and Health Act (OSHACT). Section 19 of this reference and subsequent Presidential Executive Orders directed Federal Agencies to establish and maintain SOH programs. Reference (e), 29 CFR 1910, Occupation Safety and Health Standards, contains the requirements for these programs.

The Navy SOH Program is an essential component of the Navy's overall mission. Reference (f), OPNAVINST 5100.23G, the Navy Safety and Occupational Health (SOH) Program Manual, provides a comprehensive overview of the Navy SOH Program as well as detailed

information on its various elements. Among the chapters of particular interest to the SUPSHIPs:

- OSH Responsibilities, Chapter 2
- Organization and Staffing, Councils and Committees, Chapters 3 and 4
- Prevention and Control of Workplace Hazards, Chapter 5
- Training, Chapter 6
- Hazardous Material Control and Management, Chapter 7
- Occupational Health, Chapter 8
- SOH Inspection Program, Chapter 9
- Employee Reports of Unsafe/Unhealthy Working Conditions, Chapter 10
- Inspections and Investigations of Workplaces by Federal and State OSH Officials, Chapter 11
- Hazard Abatement Program, Chapter 12
- Fall Protection Program, Chapter 13
- Mishap Investigation, Reporting, and Record Keeping, Chapter 14
- Respiratory Protection, Chapter 15
- Occupational Safety and Health Standards, Chapter 16
- Asbestos Control, Chapter 17
- Hearing Conservation and Noise Abatement, Chapter 18
- Sight Conservation, Chapter 19
- Personal Protective Equipment, Chapter 20
- Lead, Chapter 21
- Energy Control Program (Lockout/Tagout), Chapter 24

12.3.1.1 NAVSEA Guidance

Reference (g), NAVSEAINST 5100.15B**, NAVSEA Occupational Safety and Health (OSH) Program Policy and Guidance, establishes policy and guidance for NAVSEA headquarters and field activities. This instruction emphasizes the importance of an effective SOH program, stating that it *"is a significant and vital component of leadership and management at all levels of command that, not only addresses the health and welfare of the workforce involved, but also is an integral part of mission readiness and capability."* Moreover, the SOH Program is to be considered a major business process and should be strategically linked to other business processes.

** Denotes secure hyperlink requiring NMCI/CAC access

12.3.2 SUPSHIP Responsibilities

The Supervisor is responsible for ensuring safe and healthy workplaces. Specific SOH program functions which should be addressed at the SUPSHIPs include, but are not limited to:

- establishing an appropriate SOH management system and organization
- providing mishap prevention programs
- supplying hazard abatement programs
- providing OSH training
- conducting workplace inspections
- coordinating occupational health and industrial hygiene field support
- establishing OSH councils/committees
- establishing clear lines of authority to ensure all personnel are fully aware of their rights and responsibilities
- fostering hazard awareness in all personnel
- conducting contractor oversight
- collecting and reporting data for determination of contractor performance award fees
- collecting and reporting data for contractor past performance databases

12.3.2.1 Manager for Safety and Occupational Health

The primary functions and responsibilities of the Manager for Safety and Occupational Health include:

- developing, implementing, managing, and evaluating local policy and directives to address the requirements defined above
- advising the Supervisor on SOH matters
- serving as the SUPSHIP single point of contact on SOH issues
- interfacing with contractor, regulator, and other Navy personnel on SOH issues
- developing and providing training for personnel
- providing timely and accurate submittal of reports required by the OPNAVINST 5100.23G

12.3.3 Policy Guidance

NAVSEAINST 5100.15B establishes policy guidance for SUPSHIP implementation of the NAVOSH program. It contains a brief overview of liabilities, specific elements, and

** Denotes secure hyperlink requiring NMCI/CAC access

limitations of the SUPSHIP SOH program. The following sections outline general policy on inspections and SUPSHIP oversight.

12.3.3.1 Inspections and Self-Assessments

The Naval Inspector General Oversight Inspection Unit (NOIU) conducts oversight inspections of SOH programs for Navy shore activities, including NAVSEA field activities. NAVSEA-directed oversight inspections are conducted during ESHCRs and NAVSEA Performance and Compliance Inspections (NPCI). Paragraph 10.2.3.3 of the NAVSEA Environmental, Safety, and Health Oversight Program Guidance requires field activities to complete an ESH self-assessment annually and provides minimum standards for the internal assessment. Additionally, NAVSEA will conduct periodic on-site ESH technical authority reviews of ship repair contracts and the controls exercised by the SUPSHIPs to ensure compliance with contractor oversight responsibilities and reference (h), 10 U.S.C. 7311, Handling of Hazardous Waste in the Repair or Maintenance of Naval Vessels.

12.3.3.2 SUPSHIP Oversight Functions

Navy Workplaces. Navy workplaces are defined as Navy-owned or Navy-leased facilities, or those furnished by a contractor for Navy or SUPSHIP's exclusive use. In accordance with section 0104 of OPNAVINST 5100.23G, Navy workplaces are required to be inspected at least annually by qualified inspectors; hazardous workplaces should be inspected more frequently as determined appropriate by the Manager for Occupational Safety and Health.

Contractor Workplaces. SUPSHIPs will not conduct inspections of facilities owned and occupied solely by contractors. The contractor is responsible for providing safe working conditions for their personnel, in accordance with regulations, in contractor production shops, shipways, dry-docks, etc., that are not occupied by Navy personnel. When a contractor is performing work on-board a Navy ship, the ship space involved is a contractor workplace in which the SUPSHIP and the ship's commanding officer have a NAVOSH responsibility for protection of government personnel and property. The SUPSHIP does not enforce OSHACT requirements in contractor workplaces, but does conduct monitoring to ensure safe working conditions for SUPSHIP and other Navy employees. The SUPSHIP monitors the contractor's efforts, especially aboard Navy ships under construction, overhaul, and repair, to ensure safe working conditions in areas where SUPSHIP personnel are present. It also brings SOH deficiencies to the contractor's attention for correction.

Shared Workplaces. Certain workplaces, such as receiving areas for Government-Furnished Equipment (GFE), are shared by both SUPSHIP and contractor personnel. As with contractor workplaces, the SUPSHIP monitors shared workplaces to ensure safe working conditions for SUPSHIP personnel and will inform contractors of SOH deficiencies. SUPSHIPs have a responsibility to remove Government employees where a space is not compliant with OSHACT, even if no imminent danger is present.

Deficiency Abatement. NAVOSH deficiencies identified in Navy-owned workplaces are to be abated by the SUPSHIP or other cognizant Navy command. Abatement of SOH deficiencies

at contractor facilities is the contractor's responsibility. Like environmental deficiencies, safety deficiencies are brought to the contractor's attention through the use of Corrective Action Requests in accordance with Chapter 9 of this volume, and are titled as a "Safety Deficiency Report". These deficiency notices should be considered as supporting documentation for evaluation of contractor performance for award fee determination and, when applicable, as past performance data for consideration in award of future contracts.

Imminent Danger. In the event of imminent danger to government personnel or property, work will be stopped immediately by the observing party (SUPSHIP, ship's force, or contractor), and the SUPSHIP will immediately:

- remove all government personnel from the site
- notify cognizant management
- insist on immediate correction or termination of the operation

Ship Commanding Officer Coordination. On commissioned ships, SUPSHIPs should collaborate with the ship's commanding officer in NAVOSH inspections relating to contractor worksites and operations, as necessary. Unless otherwise specified by agreement, SUPSHIP NAVOSH responsibilities do not extend to ship's force. Nevertheless, NAVOSH requirements are essentially the same for each party. The SUPSHIP should keep the CO and prospective CO informed of significant deficiencies which could adversely affect the ship or ship's force.

Gas Free Engineering. Requirements for gas free engineering by Navy personnel are addressed in reference (i), NSTM S9086-AA-STM-010/CH-001R45 (Chapter 074 Volume 3, Gas Free Engineering). Gas free operations accomplished by contractors are addressed in reference (j), National Fire Protection Association Standard 306 (NFPA 306), Standard for the Control of Gas Hazards on Vessels, and (k), OSH Standards for Shipyard Employment (29 CFR 1915).

Appendix 12-A: Acronyms

CAR	Corrective Action Request
CFR	Code of Federal Regulations
DoN	Department of the Navy
EP	Environmental Protection
EPCRA	Emergency Planning and Community Right to Know Act
ES&H	Environmental, Safety and Health
ESHCR	Environmental, Safety and Health Compliance Review
FAR	Federal Acquisition Regulations
GFE	Government Furnished Equipment
GFM	Government Furnished Material
HAZMAT	Hazardous Material
HW	Hazardous Waste
MOA	Memorandum of Agreement
NAVFAC	Naval Facilities Engineering Command
NAVOSH	Naval Occupational Safety and Health
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction
NCPI	Naval Sea Systems Command (NAVSEA) Compliance Inspection
NEPA	National Environmental Policy Act
NFPA	National Fire Prevention Association
NOIU	Naval Inspector General Oversight Inspection Unit
NSTM	Naval Sea System Command (NAVSEA) Technical Manual

OPNAVINST	Chief of Naval Operations Instruction
OSH	Occupational Safety and Health

Chapter 13 – Security

Table of Contents

13.1 Introduction 13-3

13.2 SUPSHIP Internal Security Responsibilities 13-3
13.2.1 SUPSHIP Personnel 13-3
13.2.2 SUPSHIP Security Officer Responsibilities 13-4
13.2.2.1 Security Officer/Director Responsibilities 13-4
13.2.2.2 Security Manager Responsibilities 13-5
13.2.2.3 Antiterrorism (AT) Officer Responsibilities 13-6

13.3 Defense Security Service (DSS) Responsibilities 13-7

13.4 SUPSHIP External Security Considerations 13-8

13.5 Physical Security within Contractor Facilities 13-9

13.6 Anti-Terrorism/Force Protection (AT/FP) 13-9

Appendix 13-A: Acronyms 13-11

References

(a) SECNAV M-5510.36, Department of Navy Information Security Program

(b) SECNAV M-5510.30, Department of the Navy Personnel Security Program

(c) SECNAVINST 5510.30B, DoN Personnel Security Program (PSP)

(d) OPNAVINST 5530.14E (Chg 1), Physical Security and Law Enforcement

(e) NAVSEAINST C5511.32C, Safeguarding of Naval Nuclear Propulsion Information

(f) NAVSEAINST 5510.3A, NAVSEA Policy on Personnel Security Determinations

(g) SECNAVINST 5510.36A, DoN Information Security Program (ISP)

(h) Federal Acquisition Regulations (FAR)

(i) DOD Directive 5220.22-M, National Industrial Security Program Operating Manual (NISPOM)

(j) DOD Regulation 5220.22-R, Industrial Security Regulation

(k) DOD Directive 5220.22, National Industrial Security Program

(l) DOD Directive 5220.6, Defense Industrial Personnel Security Clearance Review Program

(m) DOD Inst 8510.01, DOD Information Assurance Certification and Accreditation Process (DIACAP)

(n) DODINST 2000.16, DoD Antiterrorism (AT) Standards

(o) SECNAV 3300.2B, DoN Antiterrorism (AT) Program

Chapter 13 – Security

13.1 Introduction

Security is an "All Hands" responsibility and one that requires constant vigilance. This chapter provides basic security information important to all SUPSHIP personnel. It addresses the two major categories of SUPSHIP security responsibilities; first, the internal security of the command, including access control and classified material control; and second, SUPSHIP's responsibility to oversee contractor compliance with contractual security requirements.

13.2 SUPSHIP Internal Security Responsibilities

13.2.1 SUPSHIP Personnel

Internal security programs and procedures are to be in place and are to be managed by a Security Officer that is appointed in writing by the Supervisor to protect documents from unauthorized disclosure to individuals within the organization or visitors. All personnel must possess the appropriate security clearance and have a "need to know" to gain access to specific classified documents or data. DOD and DON Anti-Terrorism/Force Protection (AT/FP) Program security requirements define policies and procedures that are to be in place for the protection of personnel and government property.

All SUPSHIP personnel are responsible for complying with internal security programs and security regulations, and assisting in protection of classified information and data from unauthorized disclosure. Additionally, SUPSHIP personnel are to attend annual security briefings. Navy policies for safeguarding classified material and information are addressed in:

- SECNAV M-5510.36, "Department of Navy Information Security Program," reference (a)
- SECNAV M-5510.30, "Department of the Navy Personnel Security Program," reference (b)
- SECNAVINST 5510.30B, "DoN Personnel Security Program (PSP)," reference (c)

In addition, the SUPSHIPs are responsible for implementing the directives concerning AT/FP Programs in their facilities (see paragraph 13.6).

The Administrative Contracting Officer (ACO) is assisted by the Security Officer and SUPSHIP project team in administering contractual terms and conditions for oversight of security programs and processes at the assigned industrial organization, or at commercial organizations that provide administrative or technical support through a contract with SUPSHIP. The long standing oversight includes Physical Security for the industrial facility, the Industrial Security Program relative to plant security clearance and authorization for storage and handling classified documents, plus personnel access to naval vessels and

facilities. The most recent change involves administration and oversight of any contractually imposed directives for compliance with AT/FP.

Personnel within SUPSHIPS who interface with contractors should be familiar with pertinent regulations and the policies that pertain to contractors when contracts administered by the SUPSHIP involve access to classified information or require compliance with the AT/FP Program.

13.2.2 SUPSHIP Security Officer Responsibilities

The Security Officer is accountable to the Supervisor for all internal and external security matters for which the SUPSHIP is responsible. Responsibilities vary among SUPSHIPs based in part upon the added security requirements associated with safeguarding nuclear propulsion systems and associated secondary systems, equipment, and information. With the exception of the nuclear-related items, the following three primary functions and associated responsibilities are applicable to all SUPSHIPs.

13.2.2.1 Security Officer/Director Responsibilities

Security Officer responsibilities include:

a. Security Department or Division Head

b. Personnel and Physical Security that includes administering all SUPSHIP internal and external security matters in accordance with:

(1) SECNAV M-5510.36, “Department of Navy Information Security Program”

(2) SECNAV M-5510.30, “Department of the Navy Personnel Security Program Regulation”

(3) SECNAVINST 5510.30B, “DoN Personnel Security Program (PSP)”

(4) OPNAVINST 5530.14E (Chg 1), “Navy Physical Security and Law Enforcement,” reference (d)

(5) NAVSEAINST C5511.32C, “Safeguarding of Naval Nuclear Propulsion Information,” reference (e)

(6) NAVSEAINST 5510.3A, “NAVSEA Policy on Personnel Security Determinations,” reference (f)

(7) SECNAVINST 5510.36A, “DoN Information Security Program (ISP),” reference (g)

(8) FAR Subpart 4.4, “Safeguarding Classified Information Within Industry,” reference (h)

(9) Other NAVSEA instructions concerning specific security programs

c. administering the command's security education, training and awareness programs

d. commanding security inspections and security assist visits

e. applying risk management relative to assessments of security preparedness

f. managing compliance with treaties requirements for security matters

g. managing workplace violence policy and procedures

h. serving as Contracting Officer's Representative (COR) for contract security matters

13.2.2.2 Security Manager Responsibilities

Security Manager responsibilities include:

a. managing Communications Security and Electronic Key Management System (EKMS)

b. managing work export issues with the contracting officer and contractor

c. maintaining oversight of disclosure of documents and data to foreign entities

d. managing classified document security

e. interfacing with Defense Security Service (DSS), NAVSEA Security Office, and NAVSEA Procuring Contracting Officer (PCO) as stated in DOD Directive 5220.22-M, "National Industrial Security Program Operating Manual (NISPOM)," reference (i), when the use of classified Information is required for contract performance

f. working with the contractor's Facility Security Officer (FSO), including:

(1) verifying that the contractor has a current security clearance

(2) confirming that the contractor's facilities and personnel clearances meet the requirements for accessing and handling classified documents and information as specified in the Security Requirements Clause required by FAR Subpart 4.4

(3) verifying that work spaces where classified material will be accessible during work hours and storage facilities are in compliance with the requirements in NISPOM and other applicable DOD or DON instructions

(4) obtaining a listing of contractor personnel who have current security clearances, their authorized level of access, and effective dates

(5) verifying that access control is compliant with the level of security that is imposed

(6) providing the FCO a list of all non-contractor personnel who have proper clearance and who will work with the contractor on classified portions of the job order

(7) receiving, reviewing, and approving or disapproving all contractor access lists for ships under construction or commissioned ships under conversion or repair, and for transmission of the access lists to the vessels and the applicable shipyard or activity access control or security offices

(8) reviewing and approving the contractor's Access Control Plans (ACPs) for Government vessels and sites at which vessels are under construction or conversion, and administering the contractors' compliance with access to naval vessels and worksites

g. managing personnel security, visitor control, badge management, etc.

h. reviewing information proposed for public release for security compliance

i. ensuring protection of research and technology documents from inappropriate disclosure

j. ensuring the protection of controlled (sensitive) unclassified information

k. maintaining oversight of Navy Nuclear Propulsion Information (NNPI) control processes

l. supporting the command in addressing international agreements

m. providing assistance with international security issues

n. managing Operations Security (OPSEC) requirements

o. reviewing and approving the contractor's Plant Protection Plan (PPP) to ensure alignment and compliance with NAVSEA Standard Item 009-72 when invoked by contract

p. periodically visiting the contractor's spaces with the FCO to validate continuing compliance with all security regulations

13.2.2.3 Antiterrorism (AT) Officer Responsibilities

The Antiterrorism Officer responsibilities include:

a. managing the Command AT Program

b. establishing and chairing the Antiterrorism Working Group (ATWG)

c. establishing and chairing the Threat Working Group (TWG)

d. conducting Threat Assessments

e. conducting Vulnerability Assessments

f. conducting Risk Assessments as requested

g. maintaining liaison with Government and private agencies concerning local threats and coordinating AT plans and security matters

h. exercising elements of the AT plans

i. coordinating budgeting and funding for the AT Program

j. ensuring contractor compliance with OPNAVINST F3300.53B, "Navy Antiterrorism (AT) Program, reference (j))), when contractually invoked

13.3 Defense Security Service (DSS) Responsibilities

DOD Directive 5220.22-M assigns security cognizance for Government Contracting Activity (GCA) contractors to the Defense Security Service (DSS) whose authority is exercised by the various DSS Field Offices. The geographical areas of responsibility of these DSS field offices are listed in the DOD Regulation 5220.22-R, "Industrial Security Regulation" (ISR), reference (k). The assignment of a DSS field office responsible for performing all the security functions is set forth in the DOD ISR. For the Navy, this is implemented by SECNAV SECNAV M-5510.36 and SECNAV M-5510.30. DSS is required to:

a. administer DOD Directive 5220.22, "National Industrial Security Program" (NISP), reference (l), as a separate program element on behalf of the GCAs

b. provide security education, training, and awareness to the industrial and GCA personnel

c. decide eligibility for access to classified information by contractor personnel

d. maintain a record of eligibility determinations that is accessible to all GCAs

e. maintain a system for communicating with NISP contractors and GCAs

f. certify and accredit the contractor's Information Systems for handling classified material

DOD Directive 5220.22-M (NISPOM) applies to industry teams, including their development sites and ship construction sites. The NISPOM provides guidance to industry about security clearances, security training, classification and marking of documents and appropriate storage. Section 8 of the NIPSOM specifically discusses Information System (IS) security that includes guidance on how to properly certify and accredit Information Systems, such as computers, media, and networks. Following the NISPOM guidance, the contractors are inspected by, and must receive approval from DSS, to receive, store and create classified

material. This includes certification and accreditation (C&A) of their IS to operate with classified information and data.

13.4 SUPSHIP External Security Considerations

SUPSHIP is a Government Contracting Activity (GCA) as defined in DOD Directive 5220.22. The Department of Defense sets forth the policies, practices and procedures that are to be followed by GCAs for the effective protection of classified information provided to industry, including foreign classified information the U.S. Government is obligated to protect in the interest of national security. DOD Directive 5220.6, "Defense Industrial Personnel Security Clearance Review Program", reference (m), establishes the standards and criteria for determining security eligibility for contractor personnel requiring access to classified information.

Government instructions, directives, manuals, etc. are not applicable to contractors unless they are contractually invoked. Modifications in the Government's AT/FP Program that increases the requirements, relative to shipbuilding contracts or when active ships and submarines are under contract at a contractor's facility must be contractually invoked in order to require contractor compliance with the added requirements, and for the SUPSHIPs to have the necessary authority to assure compliance.

As a DOD CAS Component, the Procuring Contracting Office (PCO) shall review all contracts before award to decide if releasing classified information is necessary for contract performance. If access to classified information is required for contract performance, the contract shall include the "Security Requirements" clause required by FAR Subpart 4.4, "Safeguarding Classified Information within Industry", and security classification guidance to the contractor shall be provided. When contractor access to classified information is required, the contract will require compliance with DOD Directive 5220.22-M, "National Industrial Security Program Operating Manual: (NISPOM)", and its Operating Manual Supplement. Additionally, a DOD Security Agreement, DD Form 441, shall be executed and the PCO should assure that the Contract Data Requirements List (CDRL) specifies that the contractor is to develop a Security Plan for the Navy. The Security Plan shall discuss measures that are, or will be, implemented by the contractor to protect classified information at the shipyard construction sites, including buildings and the ship under construction. Special requirements exist that must be complied with for ships under construction prior to delivery. DoDINST 8510.01, "DOD Information Assurance Certification and Accreditation Process (DIACAP)", reference (n), governs the certification, testing and accreditation of military Information Systems. SUPSHIP will utilize this instruction and the Security Plan to provide oversight of shipboard classified AIS processing.

For contracts requiring access to classified information, a contractor must have the appropriate facility clearance as authorized by DSS and as specified in the solicitation/Security Clause prior to contract award. The current facility clearance and storage capability may be verified by the cognizant DSS Office, the DSS Central Verification Activity in Columbus (telephone 1-888-282-7682), or may be based on knowledge gained through current contractual dealings with the company, as would be the case with SUPSHIP.

The contractor's Facility Security Officer (FSO) is required to submit to the SUPSHIP Security Officer an Access Control Plan (ACP). The Security Officer is accountable for approving and oversight of the contractors ACP for all non-US citizens. The ACP applies to contractor employees who may access naval vessels, including sites where naval vessels are being constructed. Any contractor who intends to hire non-citizens is required to obtain approval from SUPSHIP prior to employment if a government contract has been awarded or has the potential to be awarded to the contractor.

13.5 Physical Security within Contractor Facilities

Primary guidance for private shipyard security, when invoked by contract, is contained in NAVSEA Standard Item (SI) 009-72, "Physical Security of U.S. Naval Vessels and Crew at Private Contractors Facilities." A shipbuilding contract performance period typically covers several years. Because SI 009-72 is subject to an annual update, increased requirements in the SI beyond those specified in the existing contract must be contractually invoked if the new requirements are to be implemented.

The contractor is required to have a Plant Protection Plan (PPP), compliant with the NAVSEA Standard Item 009-72, when contractually invoked. The SUPSHIP Security Officer reviews and approves the PPP. The SUPSHIP Security Officer, contractor's Facility Security Officer (FSO), Contracting Officer and Program Office personnel participate in security planning and oversight in assuring compliance during the contract's performance period. The contractor must establish and maintain a personnel identification system, control visitor access to the facility, and control the receipt and removal of property from the facility. Government personnel must comply with the contractor's security regulations when they are in the contractor's facility. If the Government wants physical security arrangements other than those required by the original contract, the change in requirements must be authorized by a contract modification with an adjustment in contract price. Additional security requirements could include such items as security guards in ship's force parking areas or the patrol of water approaches to the contractor's facility.

The PCO shall include in the solicitation any requirements for providing protection for U.S. Government employees and property. Typically, the contractor will augment its security force to monitor and assure the well-being of government personnel.

13.6 Anti-Terrorism/Force Protection (AT/FP)

SUPSHIP is required to implement the Anti-Terrorism/Force Protection Program within the command. Additionally, SUPSHIP, as ACO, is charged with ensuring that all AT/FP requirements invoked in the contract are in place and maintained by the contractor for the duration of the performance period. The following are some of the more important documents concerning the AT/FP Program:

- DODINST 2000.16, "DoD Antiterrorism (AT) Standards," reference (o)
- SECNAV 3300.2B, "DoN Antiterrorism (AT) Program," reference (p)

- NAVSEAINST C5511.32C, “Safeguarding of Naval Nuclear Propulsion Information”
- NAVSEA Standard Item 009-72

OPNAVINST F3300.53B, “Navy Antiterrorism (AT) Program,” provides guidelines on how to set up an AT/FP program, including training and appointing Anti-Terrorism Officers (ATO) and Force Protection Officers (FPO). The other documents outline the requirements for protecting Navy personnel and property in contractor facilities. The AT/FP mandates are focused on establishing positive plans and deterrents to preclude unauthorized entry with the intent to cause damage to personnel or equipment from ashore or from the water.

The contractor typically will not implement emerging new requirements made to government directives that are not already contained in the contract unless a change is made to the contract and they are compensated for the change.

For example, NAVSEAINST C5511.32B was invoked in a contract being administered by SUPSHIP. The instruction was significantly revised, including adding new requirements, and issued as NAVSEAINST C5511.32C in July 2005. The contractor did not implement the new requirements nor could he be held accountable since no contract change was issued nor funding provided to support the additional cost that would have been incurred by the contractor.

Appendix 13-A: Acronyms

ACO	Administrative Contracting Officer
ACP	Access Control Plan
AIS	Automated Information System
AT	Anti-Terrorism
AT/FP	Anti-Terrorism/Force Protection
ATO	Anti-Terrorism Officer
ATWG	Anti-Terrorism Working Group
C&A	Certification and Accreditation
CAS	Contract Administration Service
CDRL	Contract Data Requirements List
COR	Contracting Officer's Representative
DIACAP	Department of Defense Information Assurance Certification and Accreditation Process
DoD	Department of Defense
DoDD	Department of Defense Directive
DoDINST	Department of Defense Instruction
DoD-R	Department of Defense Regulation
DoN	Department of the Navy
DSS	Defense Security Service
EKMS	Electronic Key Management System
FAR	Federal Acquisition Regulations
FCO	Facility Clearance Officer
FPO	Force Protection Officer

FSO	Facility Security Officer
GCA	Government Contracting Activity
IS	Information System
ISP	Information Security Program
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction
NISP	National Industrial Security Program
NISPOM	National Industrial Security Operating Manual
NNPI	Navy Nuclear Propulsion Information
OPNAVINST	Chief of Naval Operations Instruction
OPSEC	Operations Security
PCO	Procuring Contracting Officer
PPP	Plant Protection Plan
SECDEF	Secretary of Defense
SECNAVINST	Secretary of Navy Instruction
SECNAV-M	Secretary of the Navy Manual
SUPSHIP	Supervisor of Shipbuilding, Conversion and Repair, USN
TWG	Threat Working Group

Chapter 14 – Integrated Logistics Support (ILS)

Table of Contents

14.1 Overview 14-4

14.2 Purpose 14-4

14.3 Policy and Responsibilities 14-5

14.4 ILS Element Descriptions 14-5
14.4.1 Maintenance Planning 14-5
14.4.2 Manpower and Personnel 14-6
14.4.3 Supply Support 14-6
14.4.4 Support and Test Equipment 14-6
14.4.5 Technical Data 14-7
14.4.6 Training and Training Support 14-7
14.4.7 Computer Resources Support 14-7
14.4.8 Facilities 14-7
14.4.9 Packaging, Handling, Storage, and Transportation 14-8
14.4.10 Design Interface 14-8

14.5 Joint Computer-Aided Acquisition and Logistics Support (JCALS) Program 14-8

14.6 Role of the ILS Manager (ILSM) and Logistics Element Manager (LEM) 14-8
14.6.1 ILSM Team Meetings for Repair or Overhaul Availabilities 14-9

14.7 Provisioning Process 14-9
14.7.1 Provisioning Technical Data (PTD) 14-9
14.7.2 Engineering Data for Provisioning (EDFP) 14-10
14.7.3 Provisioning Coding 14-12
14.7.4 Logistics Databases 14-12
14.7.5 Allowance Development 14-13
14.7.6 Purchasing 14-14

14.8 METHODS OF SUPORT 14-15
14.8.1 Full Contractor Support 14-15
14.8.2 Interim Support 14-15
14.8.3 Full Navy Support 14-15

14.9 MATERIAL VISIBILITY AND MANAGEMENT 14-15
14.9.1 SUPSHIP and FISC/NAVSUP Responsibilities 14-16

14.10 Technical Manual Management Program (TMMP) 14-16
14.10.1 Introduction 14-16

14.10.4 Technical Manual Quality Assurance (TMQA) 14-20

14.11 TD and Other Logistics Elements 14-23

14.12 CONFIGURATION MANAGEMENT (CM) 14-23
14.12.1 Introduction 14-23
14.12.2 Policy 14-24

14.13 CONFIGURATION DATA MANAGEMENT (CDM) 14-25
14.13.1 Introduction 14-25
14.13.2 Configuration Data Manager's Database-Open Architecture (CDMD-OA) 14-25
14.13.3 Naval Supervising Activity (NSA)/SUPSHIP/NAVSUP Annex ILS Responsibilities 14-26

14.14 Diminishing Manufacturing Sources Material Shortages (DMSMS) 14-27

Appendix 14-A: MOA Regarding SUPSHIP Support 14-29

Appendix 14-B: Acronyms 14-34

References

(a) DoD Directive 5000.01, The Defense Acquisition System

(b) DoDINST 5000.02, Operation of the Defense Acquisition System

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

(d) SECNAVINST 4105.1C, Independent Logistics Assessment (ILA) and Certification Requirements

(e) TechAmerica Standard GEIA-STD-0007, Logistics Product Data

(f) NAVSEAINST 4790.1B, Expanded Ship Work Breakdown Structure (ESWBS) Hierarchal Structure Codes (HSC) for Ships, Ship Systems, and Surface Combatant Systems

(g) OPNAVINST 1500.76C, Naval Training System Requirements, Acquisition, and Management

(h) Provisioning, Allowance, and Fitting Out Support (PAFOS) Manual

(i) NAVSEA Program Manager's Guide

(j) MIL-HDBK-502, DoD Handbook for Product Support Analysis

(k) MIL-STD-31000A, Technical Data Packages

(l) OPNAVINST 4441.12D, Retail Supply Support of Naval Activities and Operating Forces

(m) DoD 4140.01, DoD Supply Chain Materiel Management Procedures

(n) NAVSEAINST 4160.3B, Technical Manual Management Program

(o) NAVSEA S0005-AA-PRO-010/TMMP, Technical Manual Management Program Operations and Procedures

(p) NAVSEAINST 4130.12B, Configuration Management Policy and Guidance

(q) MIL-HDBK-61A, Configuration Management Guidance

(r) NAVSEA Technical Specification (NSTS) 9090-700 (series)

(s) SL720-AA-MAN-010/020, NAVSEA Fleet Modernization Program Operations and Management Manual

(t) Surface Ships and Carriers Entitled Process (EP) for Modernization Management and Operations Manual (SL720-AA-MAN-030)

(u) ASN (RDA) Diminishing Manufacturing Sources and Material Shortages (DMSMS) Management Guidance Memo of 27 Jan 05

(v) DASN(L) DMSMS Management Plan Guidance

Chapter 14 – Integrated Logistics Support (ILS)

14.1 Overview

This chapter is an overview of the logistics process used by NAVSEA for the acquisition and life cycle management of ships, systems, and equipment. SUPSHIPs, under prior guidance, played a significant, hands-on role in the logistics process. However, with the reorganization and restructuring of the SUPSHIPs, the transfer of repair-oriented SUPSHIPs to the Fleet to become Regional Maintenance Centers (RMCs) and the transfer of material functions to NAVSUP Fleet Industrial Supply Centers (FISCs), the SUPSHIP logistics support role has evolved into one of primarily oversight rather than participation. NAVSEA and NAVSUP solidified this major evolution via a Memorandum of Agreement (MOA), Appendix 14-A, making the transfer effective in June 2003.

14.2 Purpose

In the construction of a new ship class, the acquisition of systems and equipment to be installed is tailored to the ship design and other top level requirements and operational capabilities. Most Integrated Logistics Support (ILS) policy, guidance, and directives are written generally in this context for the acquisition of new ships, systems, or equipment to meet a specific mission requirement. Chief of Naval Operations (CNO) requirements state that new systems or equipment will not be installed unless the required logistics support is in place.

ILS for DoN programs is defined as a composite of all support considerations necessary to ensure effective and economical support for the life cycle of ships, systems, and equipment. In this broad context, ILS is a disciplined, unified, and interactive approach for the management of technical activities necessary to:

- develop support requirements consistent with the design and other requirements
- integrate these considerations into the design
- provide the required support during the system or equipment life cycle at minimum cost

The fundamental objective of ILS is to provide life cycle support. To achieve this objective, a disciplined process must be followed where design engineering, logistics engineering, and planning, programming, and budgeting activities are effectively integrated. Actual integration of logistics considerations into NAVSEA acquisitions requires the combined efforts of the design community, acquisition Program Managers, and those organizations responsible for formulating and executing the budget.

For the purposes of this chapter, the title (i.e., Project Manager, Assistant Project Manager for Logistics) of an individual responsible for the logistics support of a system or equipment is interchangeable with the term "ILS Manager" (ILSM).

14.3 Policy and Responsibilities

ILS policy guidance is contained in DoD Directive 5000.01, reference (a), DoDINST 5000.02, reference (b), SECNAVINST 5000.2E, reference (c), and SECNAVINST 4105.1C, reference (d).

It is the policy of NAVSEA to plan, budget, design, acquire, and support end items to optimize and (is a word missing here?) unit design and logistics activities. To this end, NAVSEA Program Managers must implement procedures that will integrate logistics planning and design actions. The ILS requirements for each system or equipment acquisition must be compatible with individual ship ILS requirements to ensure that ILS documentation reflects the ship's current configuration.

Program Managers (PMs), life cycle managers for operational systems and equipment, and other designated managers are responsible for total logistics development for assigned programs. These managers may be resident in Direct Reporting Program Managers (DRPMs), Program Executive Offices (PEOs), NAVSEA 05, or other designated NAVSEA codes.

For new ship acquisition, a task group manager for logistics is assigned to assist the Program Manager as an active participant in ship design decisions to ensure that logistics are adequately procured. Similarly, an ILSM (ILS Manager) is assigned to each system and equipment acquisition program. This ILSM resides in the program office and is accountable for ILS planning, logistics resource management, ILS program progress and performance measurement, and transfer of logistics products to the Fleet or other receiving activities.

Full logistics support for an end item's support equipment must be available when the end item is installed on an operational Navy ship.

14.4 ILS Element Descriptions

14.4.1 Maintenance Planning

Maintenance planning is a process conducted to establish maintenance and support concepts and requirements for the lifetime of the defense system. A Maintenance Plan is a description of the requirements and tasks to be accomplished for achieving, restoring, or maintaining the operational capability of a system, equipment, or facility. It contains the performance requirements for each level of maintenance (i.e., organizational, intermediate, and depot) and lists the maintenance requirements that must be accomplished.

The contractor may be required to deliver Maintenance Planning Summaries in accordance with DI-ALSS-81530 in TechAmerica Standard, GEIA-STD-0007, Logistics Product Data, reference (e). These summaries provide maintenance planning information that may be used to develop initial fielding plans for the end item's support structure. They may also be used to verify that the maintenance actions and support structure are aligned with the Government's requirements and maintenance concept. The information contained within these summaries is associated with system components to the level of detail specified on the contract. The repairable items should be identified within the hierarchy of the end item, broken down by an agreed-upon configuration control method in accordance with NAVSEAINST 4790.1B**,** reference (f). The summaries may identify preventive and corrective maintenance actions and the required spares and support equipment. These summaries may also be used to provide supporting information that justifies the need for each maintenance action, e.g., elapsed time of maintenance actions, task frequency, failure rate of an item, and mean time to repair an item.

14.4.2 Manpower and Personnel

Manpower and personnel represents the people required to operate and support the system over its planned life cycle. Manpower and personnel analysis is the process conducted to identify and acquire military and civilian personnel with the skills and grades required to operate and support the system over its planned lifetime at both peacetime and wartime rates. Acquisition logistics efforts should strive to minimize the quantity and skill levels of manpower and personnel required in accordance with OPNAVINST 1500.76C, "Navy Training System Requirements, Acquisition and Management," reference (g).

14.4.3 Supply Support

Supply support involves ensuring that spares (hardware, components, and computer programs) and repair parts required to operate and maintain a system are provided on a timely basis. Hardware supply support consists of a provisioning phase followed by routine replenishment, and software supply support must include software and firmware cataloging and provisions for routine re-supply of media (i.e., magnetic tapes, etc.).

14.4.4 Support and Test Equipment

Support equipment is all equipment (mobile or fixed) required to support the operation and maintenance of a material system. Support equipment consists of ground handling and maintenance equipment; tools, jigs, and fixtures; miniature/micro-miniature repair kits; Gold Disks and Test Program Sets (TPS); and Test, Measurement, and Diagnostic Equipment (TMDE). It also includes the acquisition of logistics support for the support equipment. Where possible, existing general purpose support equipment is selected for use on new systems or equipment as opposed to developing new, special purpose support equipment. The use of general purpose support equipment eases the burden on the logistics system since new training, provisioning, maintenance planning, and calibration procedures are not needed.

14.4.5 Technical Data

Technical data is recorded information regardless of form or character, such as manuals and drawings of a scientific or technical nature. ILS plans include strategy, procedures, and schedules for identifying, specifying, preparing, collecting, publishing, distributing, updating, and archiving technical data related to the end item. To obtain the requisite technical data, acquisition contracts must contain specific requirements for the contractor to develop and deliver the data to the Government. Program Managers for new shipbuilding programs and new systems and equipment whose designs are under Navy control must procure the technical data. Publication of technical manuals must be scheduled to coincide with the availability of final drawings of the end item to ensure that the manuals accurately reflect technical and logistics support data. Preliminary technical information must be provided to training commands and installation, maintenance, and operating personnel prior to equipment delivery.

14.4.6 Training and Training Support

Training and training support addresses the processes, procedures, curricula, techniques, training devices, simulators and equipment necessary to train civilian and military personnel to operate and support equipment and systems. A Navy Training System Plan (NTSP) is developed for each system and equipment acquisition addressing initial, formal, and on-the-job training. Logistics support must also be provided for the installation, operation, and support of devices for required training equipment.

14.4.7 Computer Resources Support

The Computer Resources Support element addresses the facilities, hardware, software, documentation, and manpower and personnel needed to operate and support embedded computer systems. Computer hardware and software performance requirements, if needed, are also determined as part of the ILS process. A software development plan is prepared for the acquisition of software, and a Computer Resources Life Cycle Management Plan (CRLCMP) is developed to describe how software changes will be managed throughout the life of the item; the plan will address specific items such as responsibilities and actions required for configuration control, documentation development, validation and verification, and management of Fleet feedback.

14.4.8 Facilities

Facilities are the permanent, or semi-permanent, real property assets required to support a material system. The facilities elements include studies to define types of facilities or facility improvements needed, locations, space needs, environmental requirements, and equipment needed in the facility. The use of organic depot and intermediate level maintenance activities is assessed, as well as interim contractor support. Existing facilities are viewed as an alternative to new facility acquisition.

14.4.9 Packaging, Handling, Storage, and Transportation

The Packaging, Handling, Storage, and Transportation (PHS&T) addresses the resources, processes, procedures, and design considerations related to the safe PHS&T of all systems, equipment, and support items. PHS&T includes environmental considerations and equipment preservation requirements for short and long term storage. Early in the assessment process, requirements must be determined for equipment protection against specific environments. Technical instructions must be developed to ensure safe packaging, handling, storage, and transportation of the end item or its components throughout the life cycle. These requirements must be provided in time for use with the first end item and its components. The project's logistics database and planning documents must include PHS&T requirements and cite arrangements for providing associated resources.

14.4.10 Design Interface

Design interface is the primary area of the integration among logistics and systems/software engineering functions. This includes design parameters such as reliability, maintainability, and supportability. Design interface provides product specifications which measure demands on the logistics system by system performance rather than inherent technical factors of design. Within the design interface element, the logistics analysis and the human engineering process have the greatest influence on design.

14.5 Joint Computer-Aided Acquisition and Logistics Support (JCALS) Program

The JCALS program consists of a set of software tools used to manage electronic technical data (SGML/XML/PDF/etc.). The data currently managed includes the Planned Maintenance System (PMS), Engineering Operation Sequencing System (EOSS), and Technical Manuals (TMs). Management of the data includes editing (PMS/EOSS/TM) by many Navy activities and contractors and data viewing (PMS/EOSS) by fleet sailors, Navy Civilians, and DOD contractors.

14.6 Role of the ILS Manager (ILSM) and Logistics Element Manager (LEM)

The ILS Manager (ILSM), designated by the acquisition Program Manager, is responsible for managerial overview of the requirements and responsibilities for planning the ILS effort. The ILSM heads the ILS management team. Team members are called Logistics Element Managers (LEMs) and are responsible for advising and assisting ILSMs in their specific areas of expertise. Each LEM is responsible for developing and promulgating the policy and procedures necessary to ensure timely and adequate logistics support for a specific logistics element.

14.6.1 ILSM Team Meetings for Repair or Overhaul Availabilities

Based on a schedule promulgated by the PM in their ILSM Plan, meetings will be conducted and should begin at the Start of the Availability (SOA). ILSM team meetings are typically scheduled for availabilities of three months duration or longer. The determination to schedule an ILSM team meeting will be at the discretion of the PM based on Fleet need, the complexity of the availability work package, number of new first time installations, or other significant issues identified prior to or during the execution of the availability. ILSM team meetings provide the PM an opportunity to identify deficiencies and take corrective action prior to the End of the Availability (EOA).

14.7 Provisioning Process

The NAVSEA ILS Manager is responsible for the development of the maintenance concept, all program support data, and all provisioning requirements pertaining to the acquisition. The maintenance concept will contain specific guidance related to standardization, the use of Built-In Test Equipment (BITE) and Automatic Test Equipment, modularization, and economic versus non-economic criteria. This guidance has a direct impact on the provisioning process. The Maintenance Plan that evolves from the concept forms the basis for the provisioning effort. Simply, the provisioning process must determine the supply support necessary to provide the capability to carry out the Maintenance Plan. Procedures, policy, and guidance for the provisioning process are contained in the Provisioning, Allowance, and Fitting Out Support (PAFOS) Manual, reference (h), and the NAVSEA Program Manager's Guide (PMG), reference (i).

14.7.1 Provisioning Technical Data (PTD)

The Provisioning Team prepares the provisioning contract requirements to obtain the PTD. The Provisioning Team consists of, at a minimum, the ILS Manager and representatives from the Technical Support Activity (TSA) and the Naval Inventory Control Point, Mechanicsburg, PA, (NAVICP-M). The contractor has the responsibility of providing the data, and the Provisioning Team must ensure that the correct data is specified in the Contract Data Requirements list (CDRL) and the Procurement Request (PR) to obtain essential supply support data and products. The NAVSEA Program Manager's Guide provides detailed guidance for PTD requirements. NAVSEA has developed a Logistics Management Information (LMI) Worksheet similar to that found in GEIA-STD-0007. It is recommended for use by NAVSEA Program Managers when contracting for specific data elements from the contractor. NAVSEA has also developed two attachments that must accompany the NAVSEA LMI Worksheet that address data delivery and format, both of which are outside the scope of GEIA-STD-0007. The Worksheet and its attachments can be found in the NAVSEA Program Manager's Guide.

The LMI Performance Specification (GEIA-STD-0007) describes information required by the Government to perform acquisition logistics management functions. The specification is designed to minimize oversight and Government-unique requirements. The underlying

philosophy of this specification is to allow contractors maximum flexibility in designing systems and developing, maintaining, and providing support and support-related engineering data. Additional guidance on using LMI Summaries and LMI Worksheets can be found in the DoD Handbook for Product Support Analysis (MIL-HDBK-502A), reference (j). The Navy requires the PTD to be delivered in a format accepted by the Interactive Computer Aided Provisioning System (ICAPS). The ICAPS software is designed to support and accept data in various provisioning LMI formats. If a non-ICAPS system is utilized, it must be able to produce a structured formatted text or flat file in accordance with the direction contained in Appendix K of PAFOS Chapter 4. LMI summaries contain information that the Government needs in order to assess design status, conduct logistics planning and analysis, influence program decisions, and verify that contractor performance meets system supportability requirements. The LMI summaries can be delivered as stand-alone reports or as an integral part of other systems engineering documentation.

The Provisioning Performance Schedule is a non-technical schedule of events occurring during the provisioning process. It is the only provisioning requirement that varies in NAVSEA contracts. The Provisioning Parts Data (PPD) identifies all support items that can be disassembled, reassembled, and, when combined, that constitute the end item. The PPD contains data required to catalogue an item in the Navy/DoD Supply System, build Allowance Part Lists (APL), and provide for inventory management.

14.7.2 Engineering Data for Provisioning (EDFP)

Approved EDFP is required for all systems and/or equipment that are acquired for Navy use and for which PTD is being acquired. It is the technical data that provides definitive identification of dimensional, material, mechanical, electrical, or other characteristics adequate for provisioning of the support items of the end articles on contract. EDFP consists of data such as specifications, standards, drawings, photographs, sketches, and descriptions, and the necessary assembly and general arrangement drawings, schematics, schematic diagrams, wiring, and cable diagrams, etc. This data is necessary for:

- the assignment of Source, Maintenance, and Recoverability (SMR) codes
- assignment of Item Management Codes
- prevention of proliferation of identical items in the Government inventory
- maintenance decisions
- item identification necessary in the assignment of a National Stock Number (NSN)

EDFP format and content must be prepared in accordance with the latest industry standards and must be reproducible, as outlined below. Approved EDFP shall contain all appropriate annotations, i.e., proper Distribution Statements, Military Critical Technology markings, etc.

For items without an NSN recognized industry standard or government specification or standard, the following order of precedence is required for EDFP:

1. Technical data equivalent to approved Product Engineering Drawings as defined in MIL-STD-31000A, Detail Specification Technical Data Packages, reference (k).

2. Commercial drawings.

3. Commercial manuals, catalogs, or catalog descriptions.

4. Sketches or photographs with a brief description of dimensional, material, mechanical, electrical, or other characteristics.

EDFP shall provide for the following:

- technical identification of items of maintenance support considerations
- preparation of item identification for the purpose of assigning NSNs
- review for item entry control
- standardization
- review for potential interchangeability and substitutability
- item management
- coding
- preparation of allowance/issue lists
- Source, Maintenance, and Recoverability coding

EDFP shall not be provided when the item is:

- identified by a government specification or standard which completely describes the item including its material, dimensional, mechanical, and electrical characteristics
- identified in Defense Logistics Information as having a NSN with salient characteristics identical to the item
- item is listed as a reference item (subsequent appearance of an item) on a parts list

14.7.3 Provisioning Coding

The provisioning process requires a series of technical decisions recorded by the assignment of codes and is commonly referred to as "provisioning technical coding." The Technical Support Activity (TSA) validates the technical data provided by the equipment manufacturer and applies all technical coding to the spare and repair parts. The PTD is reviewed by the TSA for both engineering accuracy and technical accuracy. There are three types of provisioning methods for coding: in-house provisioning, a conference team, and the resident provisioning team. The Inventory Control Point (ICP) also has Supply Management coding decisions, such as production lead time, turnaround time, security codes, Unit of Issue, National Stock Number (NSN), and Shelf Life (SL) code which occur during the provisioning process.

Source, Maintenance, and Recoverability (SM&R) codes applied by the preparing activity identify the source of material and who can remove and replace, repair, and dispose of the material. The SM&R code is a 6 position code and is based on the maintenance concept of the systems or equipment. The Source Code is in the first two positions of the SM&R code indicating the means of obtaining a part required for the maintenance, repair, or overhaul of equipment. These codes indicate whether the part is to be procured and carried in the supply system, not to be carried in the supply system but to be procured on demand, to be manufactured, or to be assembled using component parts. The Maintenance codes are in the third and fourth position of the SM&R code. The third position indicates the lowest maintenance echelon authorized to remove, replace, and use the item. The fourth position indicates the maintenance echelon capable of performing any repair. The fifth position of the SM&R code is the Recoverability code. It indicates the disposition action for unserviceable items and/or lowest maintenance echelon capable of performing complete repair. There is an optional supplemental code for the sixth position.

Allowance Override (AOR) Codes are technical overrides which specify requirements to ensure that a minimum quantity of an item is available for such reasons as the accomplishment of planned maintenance or the safety of the operator. Technical overrides can also ensure that a part is not stocked onboard if the item is not required.

Military Essentiality Codes (MEC) define the importance of a system, equipment, or part to the missions of the ship. During the provisioning process, the MEC determination is made only at the part level.

14.7.4 Logistics Databases

The data elements which have been developed throughout the provisioning process must be loaded into computer files.

The Configuration Data Manager’s Database - Open Architecture (CDMD-OA) is a real-time configuration record for ship-to-equipment (Level A) data. Level A contains configuration data applicable to each ship (or shore) activity requiring logistics support.

The WSF (Level C) contains equipment to part data and item management data. Level C contains data constant to the APL itself, shows an equipment's higher and lower application, and lists repair parts selected for provisioning at all levels of maintenance.

14.7.5 Allowance Development

After data has been stored in the computer files, allowance quantity computations are made using one of six techniques:

- Fleet Logistics Support Improvement Program (FLSIP)
- Modified FLSIP.10
- Conventional
- TRIDENT
- Operational Availability Optimization (OAO)
- .5+ FLSIP Price Sensitive

These computations lead to the development of two primary allowance documents: the Allowance Parts List (APL) and the Stock Number Sequence List (SNSL) as part of the Coordinated Shipboard Allowance List (COSAL).

The APL is a technical document prepared for each equipment and major component onboard, listing all the maintenance-significant repair parts installed in the equipment or component to which it applies. Repair parts listed on an APL are identified by National Item Identification Number (NIIN) or Navy Item Control Number (NICN) and are cross-referenced to the corresponding manufacturer and manufacturer's part number. Other information available on the APL reflects the technical decisions made during the provisioning process.

The SNSL is a list of repair parts, modules, and assemblies with allowed onboard quantities required for the operation, overhaul, and repair of systems onboard a ship or activity. The SNSL is the basic outfitting document for ships and a supply management guide for shore activities.

Hard copy COSALs are prepared for non-SNAP (Shipboard Non-Tactical Automated Data Processing) ships. The SNAP data base is the official configuration file which lists:

- equipment and components installed in the ship to perform its operational assignment
- repair parts and special tools required for the operation, overhaul, and repair of this equipment

- miscellaneous portable items necessary for the care and upkeep of the ship
- material support required to enable the ship to have a minimum self-supporting capability for an extended period of time

The primary instruction which establishes Navy policy for COSALs is the Supply Support of the Operating Forces, OPNAVINST 4441.12D, reference (l). The COSAL is produced in three major parts:

- Part I: Indexes identifying the APL/Allowance Equipage List (AEL);
- Part II: Allowance Lists (the actual APLs and AELs associated with the installed equipment); and
- Part III: The SNSL and a cross-reference list of part and stock numbers in the COSAL.

An introduction precedes Part I and gives information concerning COSAL data content and code definitions.

14.7.6 Purchasing

Once necessary spares and repair parts have been identified, a purchase request must be prepared and issued. NAVICP-M will initiate stock buys and other supply support requests to ensure that spares and repair parts are obtained in a timely manner.

The "bottom line" in the provisioning process is the identification of the spares and repair parts necessary to support the end item. DoD regulations specify which spares may be procured as part of the provisioning process. Procurement actions often demand a long lead time, and proper timing is critical. On average, the steps in the process require 17 months to complete prior to any procurement action. These steps must commence early in the acquisition process to allow for the necessary procurement lead time. The following procurement tools aid in reducing procurement lead times:

a. The Spares Acquisition Integrated and Production (SAIP) Program is intended to secure economic efficiency in the procurement of spares and repair parts through economies of scale and procurement of material while the production line is running.

b. The Timely Spares Provisioning (TSP) program allows for the procurement of spares and repair parts concurrently with the end item and increases the flexibility of the provisioning process. It provides an option for the use of carefully directed contractor services to determine support levels and accomplish provisioning tasks in a manner that will confirm the availability of spares and repair parts when preliminary operational capability is achieved.

14.8 METHODS OF SUPORT

The three options for supporting the Fleet are: Full Contractor Support, Interim Support, and Full Navy Support. Each method has its own advantages and disadvantages.

14.8.1 Full Contractor Support

The Program Manager may obtain all supply support from a contractor. This method is advantageous to the Navy when design is unstable and some material inventories may not be required. It is also used when adequate time is not available to establish a Navy support capability. The range and depth of support should follow Navy computation rules so excess material is not generated when transitioning to Navy support. The transition plan to Navy support must address usage data collection by the contractor for all planned and corrective maintenance actions in a format the Navy can readily use.

14.8.2 Interim Support

When the full provisioning process is not feasible, some form of interim support must be provided. When interim support procedures are used, the Program Manager is responsible for not only making sure required repair parts are available, but also for ensuring the proper identification and marking of supply material, including the assignment and use of Navy Item Control Numbers (NICN) and NSNs.

14.8.3 Full Navy Support

The point in time when the Naval Inventory Control Point (NAVICP) has established the desired support infrastructure to provide spares and repair parts for a system or equipment is known as the Material Support Date (MSD). Full Navy Support occurs when all logistic support is provided from organic Navy resources. This date is known as the Navy Support Date (NSD).

14.9 MATERIAL VISIBILITY AND MANAGEMENT

The totality of material assets owned by the Government (i.e., all GFM and any CFM to which the Government will have title upon fulfillment of the contract) and maintained by the SUPSHIP and/or the contractor are collectively referred to as Government-Owned Material (GOM). GOM includes COSAL material, Schedule A, and Installation and Checkout (INCO) material. GOM may apply to any new ship construction or conversion program, as well as any ship repair, overhaul, or alteration program.

Visibility of GOM applies under the Department of Defense (DoD) Total Asset Visibility (TAV) policy which is described in the DoD 4140.01, “Supply Chain Materiel Management Procedures,” reference (m). As part of the Navy’s implementation of TAV, contractors will be required in all new-start contracts to make the Government’s assets in their possession visible via an approved, automated method. SUPSHIPs are strongly encouraged to pursue

all viable channels to obtain GOM visibility even for existing contracts. For existing contracts, SUPSHIPs should communicate with their contractors in an attempt to capture GOM inventory data for visibility purposes. Where there is a substantial cost associated with capturing this data and keeping it current, SUPSHIPs should inform the program sponsor and obtain further direction from the sponsor. NAVSEA headquarters will institute various metrics to assess the number of contracts and levels of GOM inventories in compliance with TAV initiatives.

An approved system for management of GOM is the Configuration Data Manager's Database-Open Architecture (CDMD-OA) system. Requiring the contractor to provide an initial GOM inventory baseline and periodic updates of that baseline to the SUPSHIP for incorporation into CDMD-OA is sufficient to provide "local visibility." It also satisfies auditors' mandates to have all material assets on accountable records. The visibility requirement does not stop there, however, as TAV has more global implications. The Navy's system for global asset visibility is the Virtual Master Stock Item Record (VMSIR). In order to ensure that GOM would have global visibility, an interface has been established between CDMD-OA and VMSIR. The interface is known as ROMISVIS. The advantages of GOM visibility via ROMISVIS include higher reliability of inventory accuracy, increased reutilization of assets, and avoidance of unnecessary material procurements.

14.9.1 SUPSHIP and FISC/NAVSUP Responsibilities

Both SUPSHIPs and NAVSUP are responsible for:

- **FISC/NAVSUP:** identifying points of contact for material control and data systems
- **FISC/NAVSUP:** reporting on active shipbuilding and repair contracts
- **SUPSHIP:** identifying contracts as viable candidates for GOM visibility
- **FISC/NAVSUP:** obtaining a baseline inventory and periodic updates from the contractor for each active contract in an approved digital format
- **FISC/NAVSUP:** reporting those inventories to VMSIR using the ROMISVIS process

14.10 Technical Manual Management Program (TMMP)

14.10.1 Introduction

NAVSEA Technical Manuals (TMs) are managed and controlled through a central Technical Manual Management Program (TMMP) designed to ensure accurate, cost-effective, adequate TMs are available for Fleet and shore activity use through proper planning, funding, scheduling, and management of TMs. TMMP directive, NAVSEAINST 4160.3B, "Technical Manual Management Program," reference (n), and the associated reference (o), NAVSEA S0005-AA-PRO-010/TMMP, "Technical Manual Management Program Operations

and Procedures" provide the policies and procedures that apply to the TM life cycle process (see Fig. 14-1 below) and management of NAVSEA TMs (except those under NAVSEA 08 and Navy Special Weapons Ordnance Publications).

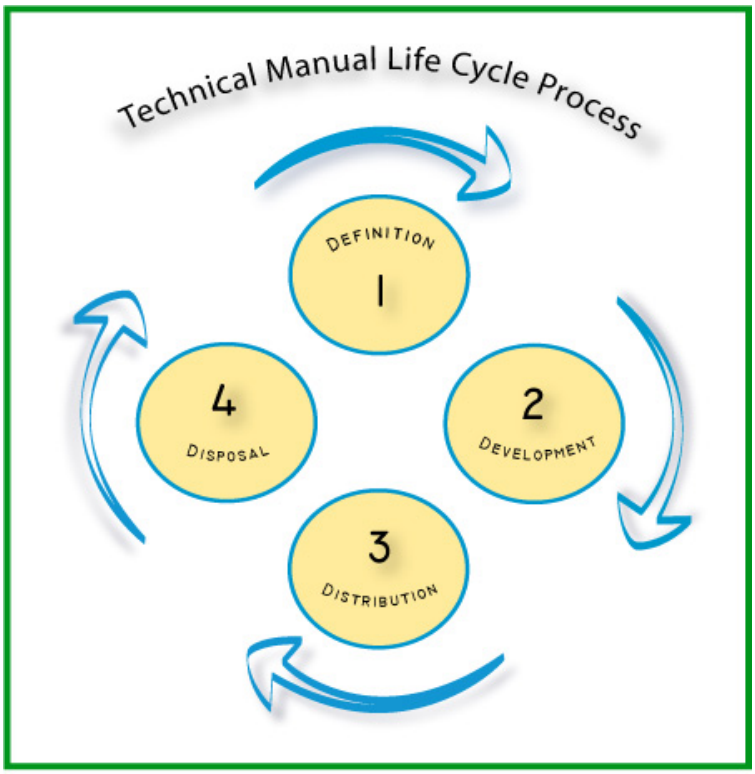

Figure 14-1. TM Life Cycle Process.

The TMMP organization is depicted in figure 14-1. NAVSEA 04L exercises authority and responsibility for policies, procedures, and programs applicable to the TMMP and ensures that the TMMP is coordinated and integrated with ILS and related technical programs. The Naval Systems Data Support Activity (NSDSA) acts as NAVSEA's agent in TM related matters providing support for centralized TM operations as directed by NAVSEA 04L. Acquisition managers are responsible for procuring comprehensive TMs supporting each ship, weapon system, equipment, or major component and for ensuring TMs provided to the Fleet and other users are technically accurate, adequate, and suitable for quality duplication prior to distribution. To do this, a Technical Manual Management Activity (TMMA) is assigned management responsibility for TMs. The TMMA is responsible for assigning an individual to perform TM Manager functions for each TM in accordance with the defined TMMP requirements. When a contractor is designated as a TMMA, a NAVSEA Government activity is identified as the Program Sponsor Activity and retains the inherently governmental TMMA functions. The acquisition manager, supported by the TMMA/TM Manager, is

responsible for maintaining the technical quality of cognizant TMs. The TM Manager supports the acquisition manager in this activity by coordinating and managing changes and revisions to assigned TMs.

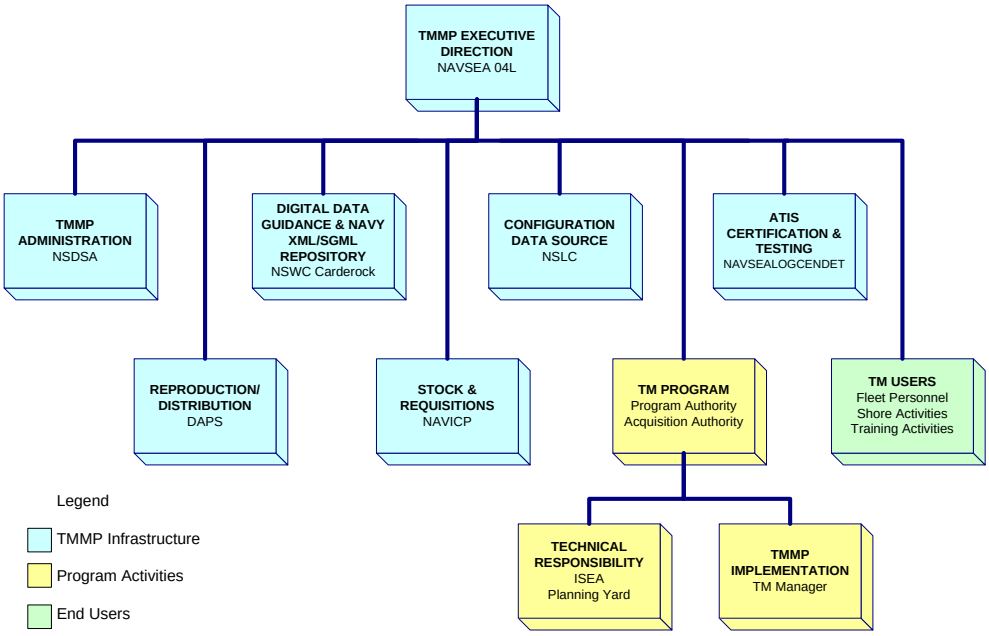

Figure 14-2. TMMP Organization.

14.10.2 TM Acquisition and Management

TM Planning. When procuring TMs, the acquisition manager is responsible to ensure an approved life cycle Technical Manual Plan (TMP) is developed for each new ship, major system, and major modification program. This TMP describes the operation, maintenance, and training TMs and how these TMs will support the system or equipment. The TMP also lists responsibilities, milestones, and schedules and must be maintained throughout the ship, system, or equipment life cycle to reflect configuration changes. Additionally, the requirements for a TMQA program should be considered early in the planning and throughout the life cycle of the applicable ships, systems, and/or equipments. Acquisition schedules include time for contractor validation, Government review, verification, reproduction and/or printing, and distribution of TMs prior to delivery of the system or equipment to the user. New and revised TMs are to be acquired, produced, delivered, and maintained compliant with Department of the Navy (DON) Policy on Digital Product/Technical Data requirements.

Funding. SCN funds are used to acquire accurate and adequate TMs for ship acquisition or outfitting. The update of SRD and systems and equipment technical manuals for an overhaul or other depot availability are funded by FMP/Design Service Allocation (DSA) resources.

Development Requirements. NAVSEA TMs and revisions must be acquired in accordance with a Technical Manual Contract Requirement (TMCR) or a Technical Manual SEATASK Requirement (TMSR). A TMCR is a definitive contractual document and is identified on the associated CDRL(s). A TMSR is similar and is used for government developed TMs. The acquisition manager (or designated agent) generates the TMCR/TMSR from within the Technical Manual Module of the Streamlined Modular Acquisition Requirements Tailoring Tool (SMART-T). The SMART-T Technical Manual Module contains an automated system for generating TMCRs/TMSRs tailored to specific procurements using only standardized and authorized specifications. The TMCR/TMSR specifies the requirements for the format, style, and technical content of TMs, associated TM products (e.g., TMQA Program Plan, Book Plan, Validation Plan, etc.), and provides the quality assurance requirements to be met. Additionally, it is NAVSEA policy to procure, evaluate, and use COTS manuals for commercial equipment whenever possible. A TMCR for the evaluation of and development of supplemental TM data for COTS TMs is also available through SMART-T. SMART-T provides a repository for TMCRs/TMSRs. TMCRs/TMSRs within the repository are viewable without an account; however, to generate a TMCR/TMSR, responsible individuals are required to register for and obtain an account. SMART-T is accessible via the NSDSA website at https://nsdsa.nmci.navy.mil/ **.

Life Cycle TM Information. The Technical Data Management Information System (TDMIS) is a Department of the Navy (DON) database used to manage and track the life cycle history of NAVSEA TMs. The TDMIS database also tracks TM history for other Systems Commands, such as Space and Naval Warfare Systems (SPAWAR) TMs and selected Naval Air Systems Command (NAVAIR) Air Traffic Control Equipment TMs. TDMIS provides a tool for programs to manage and users to research TM information, as well as provides viewing of selected TMs. This database contains both the current revision and/or change configuration information and historical information for each TM. TMMAs are responsible for maintaining current records of their TM products within TDMIS.

Whether Configuration Overhaul Planning (COP) has been completed or not, the PM/In-Service Engineering Agent (ISE) should provide a list of what TMs are required for the systems/equipment scheduled for installation during the availability. The list should state if a TM is to be shipped with equipment to the Integrated Logistics Overhaul (ILO)/ship or if the ILO/NSA should order it through the Navy Supply system.

TDMIS is also the source for obtaining Indexes of Technical Publications (ITPs). ITPs are automated listings which identify general, ship level, and equipment related TMs applicable to an individual ship, ship class, or group of ships/battle group (strike group). The ITP has been designed to serve several purposes:

- Provide a listing of TMs/CD-ROMs applicable to a ship as identified within TDMIS.
- Identify TMs/CD-ROMs to specific systems and equipments.
- Provide information about each TM/CD-ROM.
- Identify TM-to-CD-ROM Volume ID number.

The ITP is based on ship's configuration data as maintained in the Configuration Data Manager's Database-Open Architecture (CDMD-OA) and related to the TM data maintained in TDMIS. The intended use of the ITP is to assist in determining the TMs/CD-ROMs

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needed to support the operation, maintenance, troubleshooting, and repair of the onboard systems or equipment. The ITP also provides information on non-equipment related items and procedures. TDMIS can produce the following types of ITPs, depending upon the amount of information desired by the requester:

- Publication Data File
- Publication, RIC Data File
- Publication, RIC, HSC5 Data File
- Publication, RIC, HSC5, P/S Data File
- Ship Class

U.S. Military personnel and Government employees with a TDMIS account may generate and download an ITP from the Fleet Tailored Technical Data (FTTD) Module of TDMIS. Others may request an ITP from NSDSA via the NSDSA website (https://nsdsa.nmci.navy.mil/**). Requesters can choose to have the ITP formatted as either an Excel spread sheet (default) or as a text file. ITPs can be requested from within TDMIS 24 hours a day, seven days a week and can be retrieved the next day (overnight processing is required).

14.10.3 Technical Manual Identification Numbering System (TMINS)

The Technical Manual Identification Numbering System (TMINS), promulgated by the Commanders of the Naval Air Systems, Space and Naval Warfare Systems, Sea Systems, and Supply Systems Commands, provides a single numbering system for TMs and, when appropriate, other publications and documents procured by the Naval Systems Commands. The TMINS establishes a standard method of assigning a unique identification number to each TM or separately bound portion of a TM. TMINS assignments are used to acquire and manage TMs and are assigned via TDMIS, which is managed and maintained by NSDSA. Local assignment of identification numbers to distributed preliminary or final TMs, TM updates, or commercial manuals is not authorized. Detailed descriptions and guidance for TMINS is provided in N0000-00-IDX-000/TMINS. Once assigned, the TMIN is printed or displayed on all:

- New TMs
- Revisions
- Changes
- Commercial manuals and their supplements used by operating forces or in support of the Fleet
- Technical publications and documents (used by operating forces)

A NAVSEA TMIN has an "S" or "T" as the first character. The TMINS simplifies locating and obtaining information from TM lists, indexes, and libraries. Each new TM, change, or revision is also assigned a specific stock number.

14.10.4 Technical Manual Quality Assurance (TMQA)

When the Government accepts a TM which is incomplete, inaccurate, or does not correctly reflect system or equipment configuration, Fleet operation and maintenance support are adversely affected. NAVSEA established a Technical Manual Quality Assurance (TMQA)

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program which applies throughout a TM's life cycle. The objective of a TMQA program is to develop final TM products which meet quality requirements in terms of reliability, readability, adequacy, completeness, usability, reading grade level, and compatibility ensuring the Fleet and other users are provided technically accurate TMs that are of acceptable quality. The applicable Technical Manual Contract Requirements (TMCRs) or Technical Manual SEATASK Requirements (TMSRs) contain requirements for development and quality assurance of TM products as well as for completion of TMQA events.

TMQA programs are established by both the acquiring and the preparing activities.

- TMQA programs for the acquiring activity are based upon the complexity of the task and may include preparation and execution of a TM Plan and a Verification Plan; conduct of Guidance and Quality Planning meetings, in-process reviews, and Quality Program Reviews; producing review and verification findings; ensuring the Verification Incorporation Certificate (NAVSEA Form 4160/6) is completed and acceptable; and completion of the Technical Manual Certification Sheet (NAVSEA Form 4160/8).

- The preparing activity's TMQA program, which is approved by the acquiring activity, may include development and execution of a TMQA Program Plan and a validation plan; conduct of Quality Reviews and validation; participation in Guidance and Quality Planning meetings, Quality Program Reviews, and in-process reviews; and documenting QA actions with validation records, validation certificates, and verification incorporation certificates.

NAVSEA TMMP policy is that TMs and TM updates shall be validated by the preparing activity and verified by the Government acquiring activity. TMs shall not be considered final until they have completed validation and verification. Final TMs or TM updates shall not be released for duplication or distribution without a properly completed NAVSEA Technical Manual Certification Sheet (NAVSEA Form 4160/8). When directed by the program or acquisition manager, validated preliminary TMs may be used to support ship, system, or equipment requirements when the final TM is unavailable due to scheduled or in-process verification efforts.

14.10.5 TM Deficiencies

Because TM deficiencies adversely affect accuracy, adequacy, usability, and safety, NAVSEA instituted the TMMP Deficiency Program. The Deficiency Program is a maintenance program to resolve user-reported TM deficiencies and to ensure that TMs are maintained current and accurate at all times. The two main components of the Deficiency Program are Technical Manual Deficiency/Evaluation Reports (TMDERs) and Advance Change Notices (ACNs). Deficiency records are maintained within the Deficiency Module of TDMIS.

Additionally, Manual Change Requests (MCRs) may be utilized for selected submarine related TMs. T0005-AA-GYD-010 and -020 provide information on the use and processing of MCRs for selected submarine related TMs. MCRs are managed outside of TDMIS, however the Planning Yard Deficiencies Module within TDMIS may be used to track MCRs.

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TMDERs are the primary method for the Fleet and other users to identify technical and non-technical discrepancies or deficiencies or to offer suggestions for improving existing TMs. The use of the TMDER is limited to identifying routine, non-emergency problems. In those instances where a TM deficiency constitutes an urgent problem, (i.e., involves a condition, which if not corrected, could result in injury to personnel, damage to the equipment, or jeopardy to the safety or success of the mission), the TM user should send a Naval Message. The TMDER Form NAVSEA/SPAWAR 4160/1 is accessible via the NSDSA website at https://nsdsa.nmci.navy.mil/**.

The following methods are available for generation and submission of TMDERs:

- The most expedient and preferred method of TMDER generation and submission is via the Technical Data Management Information System (TDMIS) website at https://nsdsa.nmci.navy.mil/**.

  TDMIS accounts can be requested at https://nsdsa.nmci.navy.mil/**

- Generate and submit TMDER via the NSDSA website at: https://nsdsa.nmci.navy.mil/**

  - When internet access is not available, submit TMDER via hardcopy to:

    COMMANDER
    CODE 310 TMDERs
    NAVSURFWARCENDIV NSDSA
    4363 MISSILE WAY, BLDG 1389
    PORT HUENEME, CA 93043-4307

  - TMDERs against classified TMs must be submitted using the hardcopy method cited above.

  - Urgent priority TM deficiencies shall be reported by Naval message with transmission to Port Hueneme Division, Naval Surface Warfare Center (Code 310), Port Hueneme, CA. Local message handling procedures shall be used. The message shall identify each TM deficiency by TM identification number and title. This method shall be used in those instances where a TM deficiency constitutes an urgent problem, (i.e., involves a condition, which if not corrected, could result in injury to personnel, damage to the equipment or, jeopardy to the safety or success of the mission).

Complete instructions for TMDER generation and submission are detailed on the NSDSA website at: https://nsdsa.nmci.navy.mil/**.

The TMMA (via the cognizant TM Manager) is responsible for ensuring that deficiencies reported via TMDER are reviewed, analyzed, and responded to/acted upon in a timely manner. The TM manager is responsible for ensuring resolutions to deficiencies are permanently incorporated into affected TMs.

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The TMMA may issue an Advance Change Notice (ACN) to correct urgent deficiencies that impact personnel safety and mission accomplishment or result in permanent degradation of the equipment. ACNs are used to disseminate urgent or emergent personnel safety, system or equipment safety, or mission critical information due to TM deficiencies. Besides revisions and changes, ACNs are the only other authorized documentation that can be issued to correct, update, clarify, or amplify a TM. Use of bulletins, notes, newsletters, etc., is not authorized for TM changes, updates, clarifications, or amplification. ACNs are intended to be temporary documentation until a permanent TM update can be developed and issued; therefore, ACNs are considered “deficiencies” and are to be incorporated into a permanent TM update within six months from the effective date of the ACN. ACNs must not be used for logistics certification for ship, system, or equipment installations or modifications.

Modifications to TMs must be fully coordinated with other ILS elements to ensure that corresponding changes in other ILS products are available concurrently with TM updates/revisions. Conversely, modifications to other ILS products should be coordinated with required TM changes.

14.11 TD and Other Logistics Elements

NAVSEA is responsible for budgeting for TM updates using a separate budget line for TM funds. The PM provides appropriate tasking in all authorization letters to update TMs during overhauls or other depot level availabilities. The Planning Yard maintains separate lists of SRD and non-SRD TMs requiring changes or revision during the life cycle. The TMMA maintains control over assigned TMs to be updated under FMP auspices, and the NSA performs the update of assigned TMs. The TMMA maintains non-SRD TMs between overhauls and availabilities.

For ILOs, NAVSEA must coordinate on-site TM automated data requirements with ILO internal and external interfaces. NSDSA incorporates ILO requirements into TDMIS and performs quality assurance reviews on ILO input to E-STEPS.

Each ILS element deals with important aspects of the logistics support of a system or equipment. Interfacing of each element has to be coordinated with all other elements to ensure an integrated approach to provide that support. The result will be better Fleet support at a lower overall cost for the life of the system or equipment.

14.12 CONFIGURATION MANAGEMENT (CM)

14.12.1 Introduction

The purpose of Configuration Management (CM) is to provide a systematic means for documenting and controlling the configuration of material items so that managers can better regulate total life cycle costs, contract requirements, schedules, operational performance and readiness, and integrated logistics support. CM determines which items will be managed,

who will be responsible, and how the CM function will be performed, and shall include direct performance of tasks or over-site of subordinates. Guidance for establishing a CM program is provided in NAVSEAINST 4130.12B, “Configuration Management Policy and Guidance,” reference (p), and MIL-HDBK-61A, “Configuration Management Guidance,” reference (q).

14.12.2 Policy

CM shall be applied throughout a Configuration Item’s (CI's) total life cycle. The degree of CM applied will be tailored for consistency with the quantity, size, life cycle phase, complexity, intended use, and mission criticality of the CI involved.

Further, CM will permit the maximum latitude during early design and development phases, and ensure introduction of configuration control necessary during final design, production or construction, and operation. Configuration baselines will be established for ships, systems, and equipment, including computer software and firmware. Specifications and drawings will be considered primary baseline documentation. Other program documentation will be maintained to the baseline documentation. Provisions will be made in the early CM planning and execution stages to ensure that the current configuration identification is always known and that configuration change impact is properly assessed to support areas such as ILS (including training), weight control, safety, quality, and system engineering.

The applicable PM or system/equipment LCM will develop and implement a CM plan for all ship and Government-furnished systems and equipment programs, including computer software and firmware. CM provisions for contractor-furnished systems and equipment will ordinarily be covered in the ship's CM plan. A single CM plan may suffice for a similar type of ship or for groupings of family-related systems or equipment if sufficient CM program specific information is provided for each CI being managed and controlled by the same program office. The CM plans are reviewed and updated, as necessary, and approved prior to entering each program life cycle phase. They are also updated as significant changes occur in the program, specifically in the acquisition or logistical support strategy.

Applicable configuration identification documentation will be developed or maintained throughout the life cycle of all CIs. Each program level CI will have a designated configuration manager responsible for the life cycle maintenance and control of the configuration identification documentation and the baseline it defines.

For each new ship delivered under the shipbuilding contract, the PM will task and fund the planning yard assigned for each new ship class. This will ensure the accuracy of configuration identification documents and data. Planning yard involvement should start as close to the end of contract design as practicable, preferably prior to issuance of the solicitation for ship construction.

The development and operation of a central CSA system for ships and ship-related systems and equipment, including computer software and firmware, is paramount. PMs and GFE Life Cycle Managers (LCM) establish life cycle Configuration Control Boards (CCB) to act on all

proposed configuration changes. These CCBs are established for ship and systems or equipment-level acquisition programs prior to establishing the functional baseline.

Procurement Request (PR) packages for design, development, production or construction, or for operational support of ships, systems, and equipment, including computer software and firmware (and encompassing privately developed items), will also include specific CM requirements. These requirements are equally applicable to the acquisition of re-procurement items.

14.13 CONFIGURATION DATA MANAGEMENT (CDM)

14.13.1 Introduction

Ship Configuration and Logistics Information (SCLSI) data is controlled by a SPM designated CDM. The CDM is the only activity authorized to change information in the Configuration Data Manager's Database-Open Architecture (CDMD-OA), which is directly linked to the WSF. All other activities report changes via the CDM, who has ultimate responsibility for the accuracy of SCLSIS data for their assigned ship classes. The NSAs and other activities which make configuration changes to ships are still responsible for providing complete and accurate change data to the CDM.

14.13.2 Configuration Data Manager's Database-Open Architecture (CDMD-OA)

Configuration Data Manager's Database-Open Architecture (CDMD-OA) is the single maritime Navy-approved authoritative Configuration Status Accounting (CSA) System that was developed to satisfy DoD and DoN acquisition and life cycle CM requirements. The NAVSEA Technical Specification (NSTS) 9090-700 (series), reference (r), has been issued to provide a uniform approach for shipboard Configuration Status Accounting and governs the use of CDMD-OA.

The use of CDMD-OA provides a means to define the ship configuration and evaluate progress leading to specific supply readiness and logistics objectives at established milestones. Use of CDMD-OA also improves the accuracy of the Coordinated Shipboard Allowance List (COSAL) by providing early and precise configuration definition, improving allowance support available at the end of construction, providing a central data bank for reporting progress and status information to activities responsible for managing and supporting the construction and fitting out effort, and providing an accurate, complete, and ILS-certified equipment configuration for each ship delivered.

The Navy's Weapon Systems File (WSF) includes both parts level information (Level C) and related ship configuration data files (Level A). The WSF calculates and provides allowance data to the ships based on configuration triggers received from CDMD-OA, with the exception of Maintenance Assistance Modules (MAM), where allowance data is calculated within CDMD-OA. The one-way data interface from CDMD-OA to the ship is accomplished

via the Automated Shore Interface (ASI) process. The ASI file provided back to the ship via the Revised Alternative Dataflow Web version (RADWEB) communication tool contains configuration and allowance updates to the ship's onboard database.

The configuration change and supply logistics support data which has been combined into an ASI file and posted to the ships RAD Mailbox must be downloaded by the ship and processed into the installed OMMS/OMMS-NG system. The ASI files encompass a full range of data required by the ship to identify installed equipment, document preventive and corrective maintenance, stock allowed repair items, and order needed parts for maintenance actions. Processing of ASI data updates the on-board OMMS/OMMS-NG system with current configuration and supply logistics support information provided by all previously identified sources. This updated information enables ships to properly maintain their installed systems and accomplish their assigned mission.

The validity of the OMMS/OMMS-NG depends on:

- precise configuration status information and the initial establishment of an accurate equipment configuration management database
- maintenance of equipment data for equipment actually onboard
- prompt reporting of changes which result from addition, deletion, or modification of equipments

Without accurate configuration status accounting information, all other planning, scheduling, and procurement actions would be based on questionable data. The objective of the configuration data management process is to ensure that complete and accurate configuration and logistics data is submitted and reflected in the CDMD-OA/WSF.

14.13.3 Naval Supervising Activity (NSA)/SUPSHIP/NAVSUP Annex ILS Responsibilities

NSA/SUPSHIP/NAVSUP Annex ILS responsibilities with respect to configuration status accounting include the following:

- monitor the shipbuilding and conversion, modernization, repair, or overhaul contractor performing CDMD-OA record initiation, maintenance, and completion
- as required, direct the contractor to initiate corrective action to resolve problems identified from CDMD-OA output products and other data reviews
- as required, perform the necessary validation, both physical sight and record validation, to ensure the adequacy and accuracy of the contractor's procedures in developing and maintaining the CDMD-OA

- provide representation at CM related meetings, conferences and program reviews.

NOTE: Specific CM-related NSA roles and responsibilities with respect to the Fleet Modernization Program are contained in the NAVSEA Fleet Modernization Program Operations and Management Manual (SL720-AA-MAN-010/020), reference (s), and in Surface Ships and Carriers Entitled Process (EP) for Modernization Management and Operations Manual (SL720-AA-MAN-030), reference (t). Specific CM- related SUPSHIP roles and responsibilities with respect to new construction are contained in NSTS 9090-700 (series).

14.14 Diminishing Manufacturing Sources Material Shortages (DMSMS)

Diminishing Manufacturing Sources Material Shortages (DMSMS) is the loss, or impending loss, of manufacturers, items, supplies, or raw materials. DoD 4140.01, "DoD Supply Chain Materiel Management Procedures," establishes Department of Defense (DoD) policy for management of DMSMS. It requires each Service component to develop a process to proactively manage DMSMS from program initiation through a system's total life cycle. PMs are directed to establish a formal DMSMS plan for all cognizant ACAT programs IAW within the guidelines of ASN(RDA) DMSMS Memo of 27 Jan 05, reference (u).

An effective, proactive DMSMS management process is critical to providing more efficient, affordable, and operationally ready systems by proactively identifying and mitigating DMSMS issues.

Program Manager's (PM's) "Top Ten" list to mitigate the risk of DMSMS should include the following actions:

1. Incremental delivery of the source data or Bill of Material (BOM), DID DI SESS-81656.

2. Identification and development of the program's technology roadmap.

3. Configuration management of the BOM to the piece part level unless otherwise supported by a Business Case Analysis (BCA).

4. Continuous monitoring of the BOM with feedback to the program office on an established periodic basis.

5. Continuous proactive identification and forecasting of DMSMS impacts and mitigations for all configurations.

6. Continual tracking and management of DMSMS cases.

7. Determination of cost-effective solutions based on the Hierarchy of Cost Avoidance Methodology identified in the DASN(L) DMSMS Management Plan Guidance, reference (v), consistent with the technology roadmap.

8. Reporting and tracking of performance and cost metrics.

9. Insight into the prime contractor's management of its subcontractor's DMSMS programs.

10. Exit clause that includes delivery of the above, as required.

SOW/SOO DMSMS Considerations. The following should be considered for inclusion in the SOW/SOO when defining the contract requirements:

a. Development and implementation of a DMSMS Management Plan.

b. Requirement to provide DMSMS case information to the PM office for incorporation into a shared Government data repository.

c. Development and implementation in conjunction with the PM office of a standard case resolution process to manage DMSMS cases.

d. Requirement to track and report DMSMS cost and performance metrics, developed by the PM office, that include those metrics identified in DASN(L) DMSMS Management Plan Guidance, dated 12 April 2005.

e. Development and maintenance of sources and source lists of all components, materials, assemblies, subassemblies, and units throughout the system's life cycle that may be at risk for DMSMS.

f. Requirement to conduct a Total Life Cycle Systems Management (TLCSM) Business Case Analysis (BCA) for the "Hierarchy of Cost Solutions" identified in Table 1 of the DASN(L) DMSMS Management Plan Guidance to determine the best value for the program.

Appendix 14-A: MOA Regarding SUPSHIP Support

DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND, WASHINGTON NAVY YARD, DC 20376-4065
NAVAL AIR SYSTEMS COMMAND, PATUXENT RIVER, MD 20670-1547
NAVAL SUPPLY SYSTEMS COMMAND, MECHANICSBURG, PA 17055-0791
SPACE AND NAVAL WARFARE SYSTEMS COMMAND, SAN DIEGO, CA 92110-3127

SPAWAR
5400
SER 00/295
JUL 0 3 2003
NAVAIR
4400
Ser 00/
2 8 JUN 2003
JOINT LETTER

NAVSUP
5400
SER 00
2 8 JUN 2003
NAVSEA
4400
Ser 00/
2 8 JUN 2003

From: Commander, Naval Sea Systems Command
Commander, Naval Air Systems Command
Commander, Naval Supply Systems Command
Commander, Space and Naval Warfare Systems Command

Ref: (a) NAVSEA/NAVSUP INST 4441.7B/4441.29 of 10 Dec 92
(b) SUPSHIP Operations Manual (SOM), Change A of Apr 01
(c) Fleet Modernization Program (FMP) Manual Rev 2, of Jun 02

Encl: (1) Organization Charts

Subj: VIRTUAL SYSCOM MEMORANDUM OF AGREEMENT (MOA) REGARDING SUPERVISORS OF SHIPBUILDING (SUPSHIP) SUPPORT

1. Background: In August 2002 NAVSEA identified a number of reengineering initiatives for their SUPSHIP activities. This MOA outlines the strategic direction and requirements for one of those initiatives, to realign SUPSHIP material management functions to NAVSUP. The goal is to realign functions appropriately among systems commands and specifically reduce material management costs while maintaining or improving the level of support to SUPSHIP customers.

2. Applicability: This MOA applies to NAVSEA and its SUPSHIP activities and the NAVSUP enterprise. Elements in this MOA are agreed to by NAVSEA and NAVSUP and are to be documented in NAVSUP's Strategic Plan and supported by NAVSUP's Assistant Chiefs of Staff (ACOSs) for Acquisition and Industrial Support. Signature of this MOA formally initiates action to execute transfer of SUPSHIP material management functions to NAVSUP

Subj: VIRTUAL SYSCOM MEMORANDUM OF AGREEMENT (MOA) REGARDING SUPERVISORS OF SHIPBUILDING (SUPSHIP) SUPPORT

effective this date. All civilian personnel transfers will be completed after 1 October 2003 based upon continuing NAVSUP Transformation actions underway. Civilian personnel may be temporarily reassigned via cross-claimancy detail to NAVSUP any time after signature of this MOA.

3. Responsibilities and Requirements:

a. NAVSEA will:

(1) Upon execution of this MOA, reassign employees and the positions they encumber, and transfer vacant civilian positions identified in enclosure (1) with commensurate Full-Time-Equivalent (FTE) engaged in the performance of SUPSHIP material management functions, regardless of whether it results from a transfer of function or transfer of work.

(2) Compensate NAVSUP for the level of effort transferred (labor and non-labor). Compensation will be in the form of a reimbursable for FY 04 and budget-based transfer for FY 05 and out. The specified positions associated with these functions are identified in enclosure (1). Reimbursable and transfer amounts will be on a baseline consisting of the total number of encumbered FTE transferred plus all vacancies created by attrition during CY 03 (from 1 January 2003). Reimbursable savings of 5 percent in FY 04 (FTE NTE 148), with additional targets of 5 percent in FY 05 (FTE NTE 140), 10 percent in FY 06 (FTE NTE 125), and 10 percent in FY 07 (FTE NTE 109) will apply.

(3) Reimburse and transfer non-labor costs for travel, training, general supplies and awards for transferred personnel per the annual per employee General and Administrative (G and A) rate allocated to SUPSHIP. Additionally, reimburse and transfer the cost of NMCI seats for all transferred personnel.

b. NAVSUP will:

(1) Upon execution of this MOA, accept employees and vacant civilian positions identified in enclosure (1) with commensurate FTE engaged in the performance of SUPSHIP material management functions, regardless of whether it results from a transfer of function or transfer of work.

Subj: VIRTUAL SYSCOM MEMORANDUM OF AGREEMENT (MOA) REGARDING SUPERVISORS OF SHIPBUILDING (SUPSHIP) SUPPORT

(2) Execute an enterprise approach to ensure the performance standards defined by references (a) through (c) are met. This includes any ILS elements per contract specifications, and individual Contract Data Requirements List (CDRLs) to meet customer requirements. Additional performance requirements will be negotiated and approved by both NAVSEA and NAVSUP and will be documented in local agreements.

c. NAVSEA and NAVSUP agree upon the following:

(1) Transfer, per Navy guidance, the following functions:

-- Supply/Material Management
-- Inventory Management
-- Warehousing
-- Simplified Acquisition/Small Purchase
-- Physical Distribution/Transportation
-- Credit Card Buying
-- Expediting
-- Provisioning
-- Kitting
-- Outfitting

Certain functions closely aligned with the above material management functions may remain or transfer based on local requirements subject to NAVSEA, NAVSUP approval.

(2) Local MOAs at each SUPSHIP activity will detail specific performance requirements of the partnership and provide guidance pertaining to credit card purchases. Local agreements will be developed jointly with SUPSHIP and FISC input and signed by cognizant SUPSHIP and/or RMC, and FISC commanding officers after NAVSEA, NAVSUP Headquarters, ACOS for Acquisition and Industrial Support, and PEO approval. All local MOAs will be signed with copies forwarded to NAVSEA and NAVSUP prior to 1 October 2003. Any future realignments of specific functions within the NAVSUP enterprise will be subject to NAVSEA, NAVSUP Headquarters and PEO approval and documented in separate local MOAs.

(3) NAVSUP is responsible and accountable for execution of SUPSHIP material management functions to the requirements and references stated above and in local agreements. NAVSUP has

Subj: VIRTUAL SYSCOM MEMORANDUM OF AGREEMENT (MOA) REGARDING SUPERVISORS OF SHIPBUILDING (SUPSHIP) SUPPORT

authority, as NAVSEA's agent for material support, to effect changes in material management processes as necessary. This authority includes coordination of regional FISCs colocated with SUPSHIP activities as well as NAVSUP support provided for remote SUPSHIP activities.

(4) Partnership performance in meeting the requirements listed above will be reviewed at least semiannually, jointly by NAVSEA and NAVSUP to include all stakeholders and the respective SUPSHIP material process owners. Update to the stated performance requirements will be accomplished as required from this input as well as from other joint SEA-SUP coordination semiannually and local MOAs will be revised accordingly.

(5) For military, the FISC SUPSHIP site director or OIC will receive Fitness Reports from the FISC commanding officer (primary), and SUPSHIP commanders (ADDU). For civilians, the FISC SUPSHIP site director's performance appraisal will be prepared by the local FISC commanding officer with input from the SUPSHIP commanding officer.

(6) Nuclear material management functions will transfer from SUPSHIP Newport News and SUPSHIP Groton to NAVICP-Mechanicsburg, PA, Code 87. NAVSEA will reimburse for NAVSEA 08 authorized SUPSHIP billets, and NAVICP's Code 87 will manage the SUPSHIP nuclear material management functions per a separate MOA among NAVICP, SUPSHIP Newport News, SUPSHIP Groton, and FISC Norfolk. Compensation will be in the form of a reimbursable for FY 04 and budget-based transfer for FY 05 and out.

4. Execution: SUPSHIP and NAVSUP enterprise leads are responsible for the execution of all performance objectives applicable to the SUPSHIP functions or work transferred. This MOA will remain in effect from the date of signature and will be reviewed at least semiannually after the transition period to include review of local MOAs.

Subj: VIRTUAL SYSCOM MEMORANDUM OF AGREEMENT (MOA) REGARDING SUPERVISORS OF SHIPBUILDING (SUPSHIP) SUPPORT

For the Virtual SYSCOM:

K. D. SLAGHT
Commander
Space and Naval Warfare
Systems Command

J. D. McCARTHY
Commander
Naval Supply Systems Command

C. H. JOHNSTON, JR.
Commander
Naval Air Systems Command (Acting)

P. M. BALISLE
Commander
Naval Sea Systems Command

5

Appendix 14-B: Acronyms

ACAT	Acquisition Category
ACN	Advance Change Notice
AEL	Allowance Equipage List
AOC	Allowance Override Code
APL	Allowance Parts List
ASI	Automated Shore Interface
ASN(RD&A)	Assistant Secretary of the Navy (Research, Development and Acquisition)
BCA	Business Case Analysis
BITE	Built-in Test Equipment
BOM	Bill of Material
CALS	Computer-Aided Logistics
CCB	Configuration Control Board
CDM	Configuration Data Manager
CDMD-OA	Configuration Data Management Database-Open Architecture
CDRL	Contract Data Requirements List
CFM	Contractor Furnished Material
CI	Configuration Items
CM	Configuration Manager
CNO	Chief of Naval Operations
COP	Configuration Overhaul Planning
COSAL	Consolidated Shipboard Allowance List

COTS	Commercial Off-the-Shelf
CRLCMP	Computer Resources Life Cycle Management Plan
CSA	Configuration Status Accounting
DASN(L)	Deputy Assistant Secretary of the Navy (Logistics)
DMSMS	Diminishing Manufacturing Sources Material Shortages
DoD	Department of Defense
DoDD	Department of Defense Directive
DoDI	Department of Defense Instruction
DoN	Department of the Navy
DRPM	Direct Reporting Program Manager
DSA	Design Service Allocation
EOA	End of Availability
EOSS	Engineering Operation Sequencing System
EP	Entitled Process
ESTEPS	Enhanced Ship Technical Publications System
FISC	Fleet Industrial Supply Center
FLSIP	Fleet Logistics Support Improvement Program
FMP	Fleet Modernization Program
FTTD	Fleet Tailored Technical Data
GFM	Government Furnished Material
GOM	Government-Owned Material
IAW	In accordance with
ICAPS	Interactive Computer Aided Provisioning System
ICP	Inventory Control Point

ILO	Integrated Logistics Overhaul Team
ILS	Integrated Logistics Support
ILSM	Integrated Logistics Support Manager
INCO	Installation Check-Out
ISEA	In-Service Engineering Agent/Agency
ITP	Index of Technical Publications
JCALS	Joint Computer Aided Acquisition and Logistics Support
LCM	Life Cycle Manager
LEM	Logistics Element Manager
LMI	Logistics Management Information
MAMs	Maintenance Assist Module
MCR	Manual Change Request
MEC	Military Essential Code
MIL-DTL	Military Detail Specification
MILHDBK	Military Handbook
MIL-PRF	Military Performance Specification
MOA	Memorandum of Agreement
MSD	Material Support Date
NAVAIR	Naval Air Systems Command
NAVICP	Naval Inventory Control Point
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction
NAVSUP	Naval Supply Systems Command
NDS	Navy Support Date

NICN	Navy Item Control Number
NIIN	National Item Identification Number
NSA	Naval Supervising Activity
NSDSA	Naval Sea Data Support Activity
NSN	National Stock Number
NSTS	Naval Sea System Command (NAVSEA) Technical Specification
NTSP	Navy Training System Plan
OAO	Operational Availability Optimization
OMMS/OMMS-NG	Organizational Maintenance Management System/Next Generation
OPNAVINST	Chief of Naval Operations Instruction
PAFOS	Provisioning, Allowance, and Fitting-Out Support Manual
PEO	Program Executive Office
PHS&T	Packaging, Handling, Storage, and Transportation
PM	Program Manager
PMG	Program Manager's Guide
PMS	Planned Maintenance System
PPD	Provisioning Parts Data
PR	Procurement Request
PTD	Provisioning Technical Data
PY	Planning Yard
QA	Quality Assurance
RADWEB	Revised Alternatives Dataflow Web Version
RMC	Regional Maintenance Center
ROMIS	Real-Time Outfitting Management Information System

ROMISVIS	Real-Time Outfitting Management Information System Visibility
SAIP	Spares Acquisition Integrated and Production
SCLSIS	Ship Configuration and Logistics Support Information System
SCN	Ship Construction, Navy
SECNAV	Secretary of the Navy
SECNAVINST	Secretary of the Navy Instruction
SL	Shelf Life
SM&R	Source Maintenance and Recoverability
SMART-T	Streamlined Modular Acquisition Requirement Training Tool
SNAP	Shipboard No-Tactical Automated Data Processing
SOA	Start of Availability
SOO	Statement of Objectives
SOW	Statement of Work
SPAWAR	Space and Naval Warfare Command
SPM	Ship Program Manager
SRD	Selected Record Data
SUPSHIP	Supervisor of Shipbuilding, Conversion and Repair, USN
TAV	Total Asset Visibility
TD	Technical Documentation
TDMIS	Technical Data Management Information System
TLCSM	Total Life Cycle Systems Management
TM	Technical Manual
TMCR	Technical Manual Contract Requirements
TMDE	Test Measurement and Diagnostic Equipment

TMDER	Technical Manual Deficiency/Evaluation Report
TMINS	Technical Manual Identification Numbering System
TMMA	Technical Manual Maintenance Activity
TMMP	Technical Manual Management Program
TMP	Technical Manual Plan
TMQA	Technical Manual Quality Assurance
TMSR	Technical Manual SEATASK Requirement
TPS	Test Program Sets
TSA	Technical Support Activity
TSP	Timely Spares Provisioning
VMSIR	Virtual Master Stock Item Record
WSF	Weapons System File
WSFCO	Weapons System File Configuration Output

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Chapter 15 – FOIA and Public Affairs Media Queries

Table of Contents

15.1 The Freedom of Information Act (FOIA) 15-3

15.2 Public Affairs Media Queries 15-4

15.3 Ceremonies 15-4

15.4 Information and Photographs 15-5
15.4.1 General 15-5
15.4.2 Photographs of Nuclear-Powered Ships and Nuclear Support Facilities 15-6

15.5 Commercial Advertising/Information 15-6

Appendix 15-A: Acronyms 15-8

References

(a) 5 USC 552, Freedom of Information Act (FOIA)

(b) NAVSEA Policy Memorandum, Ser 00D3/04-01P of 5 January 2004

(c) Federal Acquisition Regulations (FAR)

(d) SECNAVINST 5720.42F, DoN Freedom of Information Act

(e) NAVSEAINST 5720.5, Freedom of Information Act (FOIA) Program

(f) NAVSEAINST 5727.1B, Public Affairs Coordination within NAVSEA

(g) SECNAVINST 5720.44C, Public Affairs Policy and Regulations

(h) SECNAVINST 5031.1C, Ship Naming, Keel Layings, Christenings, Commissionings and Decommissionings

(i) NAVSEAINST 7303.3C, Financing of Keel Laying, Launching, Commissioning, and Change of Command Ceremony Expense

(j) SECNAVINST 5510.36A, DoN Information Security Program

(k) SECNAV M-5510.36, DoN Information Security Program

(l) NAVSEAINST 5230.12A (Chg 1), Release of Information to the Public

Chapter 15 – FOIA and Public Affairs Media Queries

15.1 The Freedom of Information Act (FOIA)

The Freedom of Information Act (FOIA), 5 USC 552, reference (a), provides that government records, whether maintained in paper or electronic form, must be made available to the public by one or more of the following means:

- publication in the Federal Register
- cash sales program
- public reading rooms
- on-line (e.g., World Wide Web)
- on request (provided that the request reasonably describes the record, cites FOIA, and contains an agreement to pay processing fees)

FOIA specifies how agencies will make records available, imposes strict working-day response time requirements, and exempts nine categories of records from mandatory public disclosure. Records cannot, however, be protected from public disclosure unless an exemption applies and release would damage a legitimate governmental purpose. Nonexempt portions must be released.

The exemptions that most often apply to procurement records concern sensitive commercial or financial information, source selection information, pre-decisional inter-agency or intra-agency opinions and recommendations, personal information, and critical technical information.

SUPSHIP will designate a FOIA Coordinator to whom the public and SUPSHIP personnel will direct all FOIA queries or questions. The Supervisor may act as release authority or may delegate release authority to the FOIA Coordinator. Contracting officers are cautioned to avoid discussing FOIA issues with the public, including potential offerors. All conversations relative to FOIA requests should be documented in the FOIA Coordinator's request files. Because SUPSHIPs have NAVSEA Office of Counsel representation, they have the initial denial authority for FOIA requests received by their activity. This authority is delegated to the Supervisor only. The NAVSEA Policy Memorandum, Ser 00D3/04-01P of 5 January 2004, reference (b), provides further details.

When SUPSHIPs receive a request for the release of Program Office-related information under the FOIA, the FOIA Coordinators are to:

- Provide the affected PEO/PM notification of the information that will be released in response to FOIA requests (prior to release) to permit the PEO/PM to anticipate potential program impacts. In return, the PEOs/PMs have agreed to communicate any concerns to SUPSHIP in a timely manner in order to preserve the SUPSHIP's ability to meet statutory deadlines for responding to FOIA requests.

- Provide the affected company notification of intent to release information to the maximum extent possible which would allow them to prepare for any press or other interest.

Additional guidance on FOIA is provided by:

- FAR, reference (c), Part 24.2, Freedom of Information Act

- SECNAVINST 5720.42F, reference (d), "DoN Freedom of Information Act"

- NAVSEAINST 5720.5, reference (e), Freedom of Information Act (FOIA) Program

- local instructions

15.2 Public Affairs Media Queries

SUPSHIP will designate one point of contact to whom SUPSHIP personnel will direct all media questions. Media queries and the responses will be documented on NAVSEA Form 5721/1 (enclosure to NAVSEAINST 5727.1B**, reference (f)). NAVSEA's Office of Congressional and Public Affairs (NAVSEA 00D) should be contacted for guidance on queries which may generate national interest for further coordination with headquarters. NAVSEAINST 5727.1B**, Public Affairs Coordination within NAVSEA, provides guidance on media queries. Media access to shipyards also must be approved and a security plan developed to control such access. NAVSEA codes 00D and 104 coordinate these activities.

15.3 Ceremonies

Per SECNAVINST 5720.44C, Public Affairs Coordination within NAVSEA, reference (g), and SECNAVINST 5031.1C, Ship Naming, Keel Laying, Christenings, Commissionings, and Decomissionings, reference (h), ships' milestones differ in scope and level of Navy involvement. According to reference (g), the contractor is responsible for arranging ceremonies and coordinating those ceremonies with SUPSHIP for keel laying and launching of ships constructed in private shipyards. NAVSEAINST 7303.3C, "Financing of Keel Laying, Launching, Commissioning, and Change of Command Ceremony Expense," reference (i), provides policy and guidance on financing policy and procedures for ceremonial expenses associated with ship construction.

** Denotes secure hyperlink requiring NMCI/CAC access

15.4 Information and Photographs

15.4.1 General

Local release authority is approved for specific events to include pictures of employees, local celebrations, employees participating in promotions or award presentation ceremonies. References (j), SECNAVINST 5510.36A, and (k), SECNAV M-5510.36, establish uniform policies and procedures and implement the direction to observe the democratic principles of openness and flow of information, as well as enforce protective measures for safeguarding information critical to national security. Therefore, information is released only after it is determined to be consistent with established DoD and DoN policies and programs. Information requests received by SUPSHIPs will be sent to NAVSEA 00D for policy, technical, and security review. NAVSEA 00D will coordinate review with interested directorates as required.

The following instructions provide guidance for controlling the release of information and photographs:

- SECNAVINST 5720.44C, “Public Affairs Policy & Regulations”
- SECNAVINST 5510.36A, “DoN Information Security Program,” reference (j)
- SECNAV M-5510.36, “DoN Information Security Program,” reference (k)
- NAVSEAINST 5230.12A** (and Change 1), “Release of Information to the Public,” reference (l)

While contractors may be obligated to provide progress and key event photographs, commanding officers shall give consideration to personal electronic devices that have recording, photographic, storage or transmission capabilities and consider the risks with having those devices in areas where classified information is stored or processed. If required, the negatives and prints will become the property of the Government. Negatives and prints will be stamped as follows:

OFFICIAL PHOTOGRAPH NOT TO BE RELEASED FOR PUBLICATION

Classified photographs will be designated, handled, and secured according to the security requirements of the contract. Photographs and negatives must be marked with their highest overall classification level on the reverse side. Authority to take photographs other than those required will be obtained from the SUPSHIP.

** Denotes secure hyperlink requiring NMCI/CAC access

15.4.2 Photographs of Nuclear-Powered Ships and Nuclear Support Facilities

Photographs of naval nuclear-powered ships in operation, construction or conversion or industrial facilities including CIAs, must be reviewed by local security and a technical representative prior to forwarding to NAVSEA. NAVSEA 00D will provide a letter authorizing release. Official photographs of nuclear-powered ships and related nuclear support facilities are particularly sensitive and may contain potential intelligence value. NAVSEAINST 5230.12A** and its associated Change 1, require photographs that may contain such information undergo a security review and be approved for public release by NAVSEA 00D.

A media plan should be developed for ceremonies of substantial public interest, such as keel laying, launching, and commissioning of nuclear-powered ships. The media plan should be thoroughly reviewed and include an onsite security assessment and, more importantly, an Operational Security (OPSEC) assessment. Per reference (h), the shipbuilder has the ultimate responsibility for coordinating media activities associated with ceremonies; however, active involvement by Navy media and public affairs organizations is essential. The SUPSHIP PAO shall collaborate with the shipbuilder and the PEO to develop an overarching media plan that includes a Navy media focus.

Prior approval for photographic coverage is required for the ceremonies listed above. A detailed security plan will be submitted describing measures to screen or exclude sensitive areas from photographic coverage. Approval of the coverage eliminates the need to submit photographs for approval and permits timely news coverage. Photographers for these events will be under constant escort and will photograph only those areas that have been approved.

15.5 Commercial Advertising/Information

Contractors frequently refer to participation in Navy programs in their commercial advertising. SECNAVINST 5720.44C requires that proposed advertising and other promotional activities be submitted to the Navy for review and clearance in advance of publication. The contractor will submit the proposed text to SUPSHIP, who will in turn, forward the copy to NAVSEA 00D for further coordination. The general Navy policy is not to object to such advertisements, if the advertisements do not:

- directly or indirectly constitute an endorsement by the DoN or any member of the DoN for the contractor's product or service
- indicate or imply in any manner departmental preference for the contractor
- contain reference to contract number or other contractual details
- disclose classified military information

** Denotes secure hyperlink requiring NMCI/CAC access

Any office that becomes aware of any advertisement which appears to conflict with the conditions listed above will immediately bring it to the attention of the cognizant SUPSHIP PAO. The SUPSHIP will take the necessary action with the contractor to resolve the matter according to policy. If the matter cannot be resolved to the satisfaction of the SUPSHIP, the matter should be referred by letter report to NAVSEA 02. The report will include a statement of all facts and circumstances in sufficient detail to enable NAVSEA 02 to take appropriate action.

Appendix 15-A: Acronyms

CIA	Controlled Industrial Area
DoD	Department of Defense
DoN	Department of the Navy
FAR	Federal Acquisition Regulations
FOIA	Freedom of Information Act
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction
OPSEC	Operations Security
PAO	Public Affairs Officer
PEO	Program Executive Office
PM	Program Manager
SECNAVINST	Secretary of Navy Instruction
SECNAV-M	Secretary of the Navy Manual
SUPSHIP	Supervisor of Shipbuilding, Conversion and Repair, USN
USC	United States Code