DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
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IN REPLY TO

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10 Jun 02

From: Commander, Naval Sea Systems Command

Subj: FLEET MODERNIZATON PROGRAM (FMP) MANAGEMENT AND OPERATIONS MANUAL - REVISION 2

Ref: (a) FMP Management and Operations Manual (SL720-AA-MAN-010) Revision 1
(b) FMP Management and Operations Manual (SL720-AA-MAN-010) Revision 2

1. Reference (a) established specific responsibilities and procedures for the accomplishment of the Fleet Modernization Program (FMP) tasks by technical, industrial, and Fleet activities.

2. Reference (b) provides significant changes to reference (a), and since all chapters have been rewritten and/or revised, it is to be considered a total rewrite. This revision incorporates the following major FMP changes and process improvements:

- A streamlined set of Planning Milestones that support the D-30 process, technology insertion and accomplishment of all SHIPALTs during Chief of Naval Operations (CNO) scheduled availabilities
- Reduced FMP Cycle Time to 16 months. Cycle time for alterations ranges from 16 months to 4 months depending on scope and complexity of the alteration.
- NAVSEA 04 migration of legacy FMPMIS to Navy Data Environment-Navy Modernization (NDE-NM), which will be completed in calendar year 2002. Once completed, NDE-NM will be the "authoritative" national database in support of the FMP.
- A new Integrated Logistics Support (ILS) Certification Form, which standardizes Ship Program Manager (SPM) supportability requirements and milestones for SHIPALTs.
- Revised Justification/Cost Form (JCF) and Ship Alteration Record (SAR) Technical Specifications.
- Revised Elements for Design Services Allocation(DSA) for use across the SYSCOMs.

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- Included TEMPALT policy for surface ships (no longer exempt from FMP). Similar to existing submarine TEMPALT policy.

3. Reference (b) is effective this date. This revision will be posted on the FMP website Library at the URL address, www.fmp.navy.mil.

G. P. NANOS, JR.

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FA50 (Trident Refit Facility, LANT)
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FB30 (Ship Repair Facility)
26L (Submarine Logistics Support Center and Detachment)
26T (Regional Support Group and Organization)
26U (Regional Maintenance Center)
26Z (Shore Intermediate Maintenance Activity and Detachment)

Fleet Modernization Program (FMP) Management and Operations Manual

Volume 1

SUPERSEDES: SL720-AA-MAN-010, Volume 1, dated August 1993

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Revision Number	Date	Brief Description
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Section 6	Rev 2									
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SUBSECTION 1-1 INTRODUCTION

The Fleet Modernization Program (FMP) mission is to provide a disciplined process to deliver operational and technical modifications to the Fleet in the most operationally effective and cost efficient way. It defines a standard methodology to plan, budget, engineer, and install timely, effective, and affordable shipboard improvements while maintaining configuration management and supportability. It is the means by which we leverage technology and innovation to:

- Keep the war-fighting edge
- Fix systemic and safety problems
- Improve Battle Force Interoperability (BFI)
- Improve platform reliability and maintainability
- Reduce the burden on the sailor

Reference S1(a) instituted the FMP process. Chief of Naval Operations (OPNAV) N43 sponsors the FMP and Naval Sea Systems Command (NAVSEA) 04M3 serves as the FMP Policy Implementation Office and Program Manager for the Navy Data Environment-Navy Modernization (NDE-NM) database (formerly the Fleet Modernization Program Management Information System (FMPMIS)) which is the official database in support of the FMP. Modernization includes all changes, alterations and arrangement variations from the approved class plans on ships, accomplished either in maintenance/modernization availabilities or operation. This includes, but is not limited to, Title “K”, “K-P”, “D” and “F” Ship Alterations (SHIPALTs), Alterations Equivalent to Repair (AERs), Ordnance Alterations (ORDALTs), Machinery Alterations (MACHALTs), Field Changes (FCs) and Engineering Changes (ECs).

Use of the FMP process prevents unauthorized and nonsupported alterations from being installed on ships. Unauthorized alterations represent a substantial cost to the Navy in terms of the loss of configuration control, inefficiencies due to unexpected installation interference, systems and equipment which are not logistically supported, and resources expended to support items which are no longer required. Unauthorized and unsupported alterations adversely impact the interoperability of highly computerized and integrated combat systems. This equates to a loss of combat effectiveness due to a reduction in Battle Group/Amphibious Ready Group (BG/ARG) interoperability and individual ship capabilities.

This manual defines policy, processes and procedures for accomplishing all changes, modifications, and alterations to ships and equipment in the Fleet, in accordance with reference S1(a).

SUBSECTION 1-2 FMP BACKGROUND

The FMP has undergone significant changes over the last several years. This revision incorporates the following FMP process improvements:

- A streamlined set of Planning Milestones that support the D-30 process, technology insertion and accomplishment of all SHIPALTs during Chief of Naval Operations (CNO) scheduled availabilities
- Reduced FMP Cycle Time to 16 months. Cycle time for alterations ranges from 16 months to 4 months depending on scope and complexity of the alteration.
- NAVSEA 04 migration of legacy FMPMIS to Navy Data Environment-Navy Modernization (NDE-NM), which will be completed in calendar year 2002. Once completed, NDE-NM will be the "authoritative" national database in support of the FMP.
- A new Integrated Logistics Support (ILS) Certification Form, which standardizes Ship Program Manager (SPM) supportability requirements and milestones for SHIPALTs.
- Initiated improvements with respect to the policy relating to *Alterations to Ships Accomplished by Alteration Installation Teams (AITs).*
  - Technical Specification 9090-310C updated to reflect changes in AIT policy and guidance over the last 3-5 years.
  - Standardized AIT Checklist and AIT requirements across Systems Commands (SYSCOMs), Fleets and SPMs.
  - Technical Specification 9090-310C incorporates the Regional Maintenance and Modernization Coordination Office (RMMCO) process that brings the document into alignment with on-going changes in policies/procedures.
- Revised Justification/Cost Form (JCF) and Ship Alteration Record (SAR) technical specifications, which standardizes information necessary for processing by all SPMs and reduced information required for SAR signature authority.
- Revised definition of what elements are to be included in the Design Services Allocation (DSA) for use across the SYSCOMs.
- Added TEMPALT Policy applicable to Surface Ships, similar to existing submarine TEMPALT Policy.

1-2.1 References for Section 1

S1(a) OPNAVINST 4720. 2 (Series); Fleet Modernization Program (FMP) Policy for U.S. Navy Ships

1-2.2 Exceptions to FMP

The Deputy Commander for Nuclear Propulsion, NAVSEA 08, is responsible for all technical matters pertaining to nuclear propulsion of US Navy ships and craft, including all aspects of integration of the nuclear plant into the ship system. Nothing in this manual detracts in any way from these responsibilities. Accordingly, NAVSEA 08 will be consulted in all matters relating to or affecting the nuclear propulsion plant and associated nuclear support facilities. In addition, the procedures and requirements in this section are not applicable to alterations under the cognizance of NAVSEA 08. Strategic Systems Program Alterations (SPALTs) affecting the configuration and/or capabilities of systems and equipment are under the cognizance of the Director, Strategic Systems Programs (DIRSSP). Alterations affecting configuration of

hardware, software, firmware and support equipment of the TRIDENT System (including the SSBN 726 Class submarines) are under the cognizance of NAVSEA PMS392 and are exempt from this manual.

1-2.3 Responsibility for Content and Update Requirements

All proposed changes to the Sections and Appendices of this manual shall be reviewed by NAVSEA 04M. NAVSEA 04M is also responsible for overall content and maintenance of this manual.

SUBSECTION 1-3 FMP ALTERATIONS DEFINITIONS

The alterations approved for the FMP are defined below. No other types of alterations to equipment/systems are authorized for installation on operational Fleet ships and support facilities. Figure S1-1 identifies the key factors used to categorize the different types of FMP alterations: military characteristics; funding; material requirements; impacts to weight and moment, distributive systems; and installation complexity.

1-3.1 Ship Alteration (SHIPALT)

A SHIPALT is an approved permanent change to the configuration of a ship that is documented in a SAR and implemented through the FMP Process. SHIPALTs are classified by title/type and comprise any change in hull, machinery, equipment, or fittings, which involves changes in design, material, quantity, location, or relationship of the component parts of an assembly. The title assigned to a SHIPALT identifies the approving authority and responsibility for funding. SHIPALT titles are:

a. Title “K” SHIPALT - A permanent alteration to provide a military characteristic, upgrade existing systems or provide additional capability not previously held by a ship, which affects configuration controlled areas or systems of a ship or which otherwise requires the installation of Headquarters Centrally Provided Material (HCPM). These SHIPALTs are approved for development and authorized for accomplishment by the CNO (military improvements) or the Hardware Systems Commands (HSCs) (non-military improvements). The technical approval for Title “K” SHIPALTs is provided by the SPM.

b. Title “D” SHIPALT - A permanent alteration that does not affect the military characteristics of a ship. It is technically approved by the SPM in the form of a JCF and SAR, and authorized for accomplishment by the Fleet Commander in Chief (FLTCINC) or Type Commander (TYCOM). It may require Centrally Provided Material (CPM), but it does not require HCPM. A Title "D" SHIPALT may specify whether it should only be accomplished by a depot level maintenance facility.

c. Title "F" SHIPALT- A permanent alteration that is technically approved by the SPM in the form of a JCF and SAR, and authorized for accomplishment by the FLTCINC or TYCOM. It does not require HCPM or CPM and is within ship's force capability for accomplishment; however, an Intermediate Maintenance Activity (IMA) may accomplish it.

d. Title “K-P” SHIPALT - A submarine Title “K” SHIPALT that is within ship’s forces or AIT capability for accomplishment, and for which required special program and CPM are provided as a package by the cognizant HSC.

1-3.2 Equipment Alteration

An Equipment Alteration is any alteration**,** other than a SHIPALT, to the configuration of an equipment or system (including embedded equipment, computer programs and expendable ordnance) after establishment of the product baseline. An Equipment Alteration involves a change in design, type of material, quantity, installed location, logistics, supportability or the relationship of the component parts of an assembly within the ship. Equipment Alterations include the addition, deletion, rework or replacement of parts, assemblies or equipment; or changes in assembly procedures. Alterations to associated computer programs include the incorporation of different computer program versions and approved modifications or corrections

to both operational test and maintenance programs. Equipment Alterations are authorized by approved Class I Engineering Change Proposals (ECPs). Equipment Alterations apply equally to changes installed in delivered systems and equipment, and changes installed in systems and equipment in production to identify differences from an established product baseline. Equipment Alterations may be initiated to correct a design defect, to change equipment operational capability, to eliminate safety hazards, to update obsolete components or for any combination of these reasons. There are four types of Equipment Alterations; Machinery Alteration, Ordnance Alteration, Engineering Change, and Field Change that are each defined below.

1-3.2.1 Machinery Alteration (MACHALT)

A MACHALT is a planned change, modification or alteration of any Hull, Mechanical and Electrical (HM&E) equipment/systems where changes are contained within the boundaries of the individual equipment/system and have limited system ramifications. It is a planned change, modification or alteration of any HM&E equipment/system in service (shipboard or shore activities) that the MACHALT Configuration Control Board (CCB) determines meets all of the following conditions:

- Can be accomplished without changing an interface external to the equipment or system.
- Is a modification made within the equipment boundary or is a direct replacement of the original equipment design.
- Can be accomplished without the ship being in an industrial activity.
- Can be accomplished individually, not conjunctively with a SHIPALT or other MACHALT.

1-3.2.2 Ordnance Alteration (ORDALT)

An ORDALT is any modification, other than a SHIPALT, in the configuration of ordnance equipment/systems (including embedded equipment and computer programs) after establishment of the product baseline. An ORDALT involves a change in design, material, quantity, installed location, ILS, or the relationship of the component parts of an assembly within the ship or shore installation. ORDALTs include the addition, deletion, rework or replacement of parts, assemblies or equipment; or changes in assembly procedures.

1-3.2.3 Field Change (FC)

A FC is a mechanical, electronic or electrical change, modification or alteration made to electronic equipment after establishment of the product baseline and delivery to the government, including software changes, which do not impact interfaces to other equipment within the ship, change the footprint, form or fit, change power, weight, or air conditioning requirements. FCs are initiated and approved by the cognizant HSC and are implemented by FC Bulletins (FCBs). AITs or ship’s force can accomplish FCs.

1-3.2.4 Engineering Change (EC)

An EC is a modification, usually to Anti-Submarine Warfare (ASW) or Combat System (CS) equipment/systems after the establishment of the product baseline and delivery to the Navy.

1-3.3 Type Commander (TYCOM) Alterations

TYCOM alterations are permanent alterations that are technically approved by the SPM for accomplishment as a Title “D” or “F” SHIPALT or AER depending on the scope and effects of

the change. TYCOM alterations are programmed for installation by the TYCOM, as well as funded for accomplishment by the TYCOM or other organization as agreed upon. TYCOM alterations are maintenance alterations normally accomplished to improve reliability or maintainability. A TYCOM alteration is a technical alteration that has one or more of the following attributes:

- The use of different materials that have been approved for similar use and such materials are available from standard stock.
- The replacement of obsolete, worn-out or damaged parts, assemblies or components requiring renewal by those of later and more efficient design which has been previously approved by the SPM and such replacement does not cause a change to the systems or equipments normally associated with the military characteristics of the ship.
- The strengthening of parts that requires repair or replacement in order to improve reliability of the parts and of the unit provided no other change in design is involved.
- Minor modifications involving no significant changes in design or functioning of equipment but considered essential to prevent recurrence of unsatisfactory conditions.
- The replacement of parts, assemblies or equipment with like items of later or more efficient design where it can be demonstrated that the cost of the installation and maintenance of the new parts, assemblies or components is less than the cost of maintaining the installed parts, assemblies or components, and such replacement does not cause a change to the existing system design or affect any interfacing system design and does not effect a change to the systems or equipment normally associated with the military or technical characteristics of the ship.
- The proposed alteration is an inspection or documentation change requiring no equipment modification, but requires a vehicle to monitor accomplishment.

1-3.3.1 Alteration Equivalent to Repair (AER)

An AER (formerly known as a Letter AER for Surface Ships, an Alteration and Improvement (A&I) for Submarines, and an Alteration Request (AR) for Aircraft Carriers) is a permanent alteration technically approved by the SPM, typically via letter, and programmed for installation by the TYCOM. AERs must meet one or more of the above-described TYCOM alterations attributes and all of the following criteria:

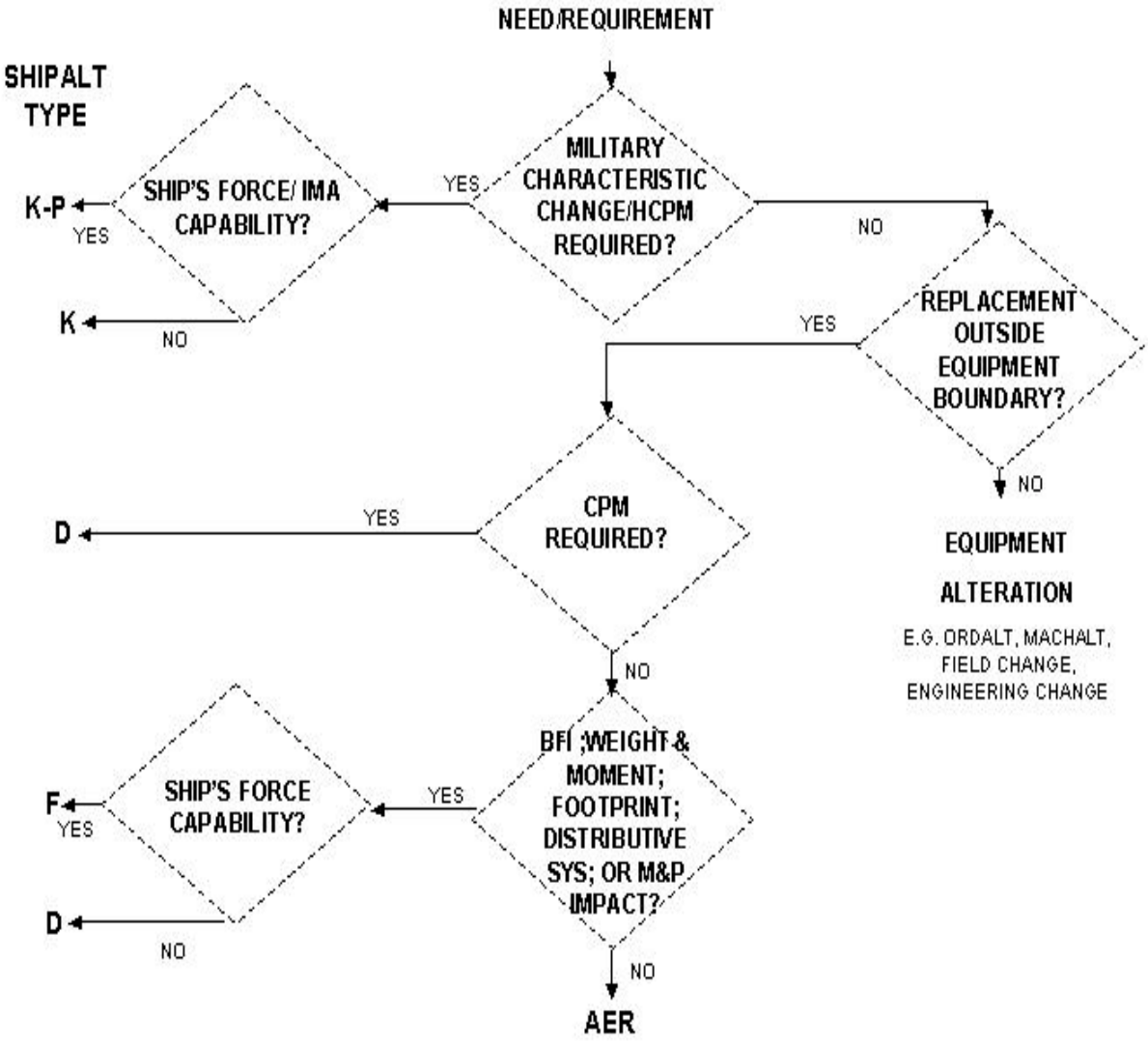
- It does not impact BFI.
- It does not impact the ship’s stability records (weight and moment).
- It does not impact or alter the 3-dimensional footprint of the equipment it is replacing.
- It does not impact shipboard distributive systems (i.e. water, ventilation, electrical, power), their Ship Selected Records (SSRs) or interfacing equipment or systems; compartmental arrangement records; or Damage Control records.
- It does not impact Manpower and Personnel.

1-3.4 Temporary Alteration (TEMPALT)

A TEMPALT is any alteration that provides given capabilities on a temporary basis (not to exceed one year or one operational deployment in duration) in support of Research, Development, Test and Evaluation (RDT&E) or exercise or mission requirements. TEMPALTs are reviewed and technically approved by the cognizant SPM and authorized for accomplishment by the cognizant TYCOM. The SPM review considers safety, technical adequacy, impact on

ship stability, operational characteristics including warfare capability, damage control, ship structure, ship services, ships interfaces, and habitability. Alterations that are intended to be installed for a period in excess of one year or one operational deployment shall be considered a permanent change to a ship's configuration and shall be accomplished as a SHIPALT accordingly. After completion of testing requirements, mission or exercise support requirements or one year, whichever comes first, TEMPALTs must be removed and the ship restored to its previous configuration. The activity sponsoring the accomplishment of the TEMPALT shall be responsible for funding the removal of the TEMPALT and the restoration of the ship.

FIGURE S1-1 ALTERATION DECISION TREE



SUBSECTION 1-4 FMP PROCESS OVERVIEW

Modifications to ships evolve from ideas to accomplishment of alterations through a complex process involving many separate actions and participants. The following subsections provide an overview of that process of alteration definition, development, and installation. Figure S1-2 identifies the SHIPALT milestones for these actions and their responsible activities. Figure S1-3 presents the milestones in a notional timeline.

1-4.1 Define Alteration Content

The preparation of the JCF and the SHIPALT requirement packages is included in this phase.

1-4.1.1 Justification/Cost Forms (JCF)

The JCF is the point of entry into the FMP process. It provides justification for the SHIPALT, known technical and material information applicable to the alteration, initial installation cost estimates, and ship classes to which the concept is applicable. Once approved through the SPM CCB, the JCF is assigned a SHIPALT number and entered into NDE-NM. An approved JCF is a prerequisite for expenditure of funds for development of the SAR.

1-4.1.2 Ship Alteration Record (SAR)

Preparation of the SAR follows approval of the JCF. The SAR, usually prepared by the Planning Yard (PY), updates and documents or references the technical requirements and specifications that define the alteration. This information forms the basis for SHIPALT installation design efforts and provides data on which SHIPALT programming decisions can be made.

1-4.2 Programming and Budgeting

The Planning, Programming and Budgeting System (PPBS) Process is the vehicle for establishing the FMP financial requirements and their execution. Approved SHIPALTs proceed through the programming and budget cycles.

1-4.2.1 Budget Finalization

The annual Program Objectives Memorandum (POM)/Program Review (PR) process is used to establish the FMP budget for SHIPALTs to be installed.

1-4.2.2 Budget Review and Adjustment

Office of the Comptroller of the Navy (NAVCOMPT) conducts formal budget hearings to ensure that activity budget estimates are within guidance, contain valid costs and pricing, and are financially feasible. After completion of the reviews, a proposed budget decision is issued that may revise the identified funding requirements.

1-4.3 SHIPALT Installation Planning

Each Fiscal Year the SYSCOMs' Comptrollers establish FMP charts of accounts by SPM programs in the Standard Accounting and Reporting System (STARS)/Headquarters Claimant Module (HCM) based on their approved budgets. The FMP budget execution process guides advance planning assignments for material procurement, design development, and ILS products impacts.

1-4.3.1 Drawing Preparation

SHIPALT Installation Drawings (SIDs) are used by the Installing Activity (IA), including ship's force, for the accomplishment of all non-nuclear SHIPALT work. SIDs are approved by PYs for all Title "K", "K-P", "D" and "F" SHIPALTs. These drawings shall include, as required, system drawings, structural drawings, arrangement drawings, manufacturing drawings, ripout drawings, assembly and detail drawings, diagrams, and cabling sheets. Completion of SIDs is to be accomplished No Later Than (NLT) A-6 and A-4 for AIT installations with agreement from the applicable Naval Supervising Activity (NSA).

1-4.3.2 Material Procurement

There are six general categories into which the SHIPALT material is sorted in the SAR. These are HCPM, CPM, NSA Provided Material; Short Lead Time Material (SLTM); Long Lead Time Material (LLTM) and IA Provided Material (IAPM).

- HCPM is budgeted and procured by a SPM once a SHIPALT has been entered into NDE-NM and programmed and budgeted by CNO for Title "K" and "K-P" SHIPALTs.
- CPM is obtained by the NSA from the HSC; Naval Inventory Control Point- Mechanicsburg (NAVICP-M); NAVICP-Philadelphia (NAVICP-P); Defense Logistics Agency (DLA); Ship Availability Planning and Engineering Center (SHAPEC); Submarine Maintenance, Engineering, Planning and Procurement (SUBMEPP); In-Service Engineering Agent (ISEA); or PY.
- NSA Provided Material is material procured or requisitioned by the NSA using SHIPALT funds.
- SLTM is material with procurement lead time of 30 days or less.
- LLTM is a lead-time greater than 30 days. The fact that material problems are anticipated dictates identification of this category of material early in the alteration development process. LLTM may be categorized as HCPM, NSA Provided Material, or CPM.
- IAPM is other industrial material used by the IA in the course of SHIPALT installation. IAPM is not identified in the SAR.

1-4.3.3 Programming and Authorization of Material

HCPM/CPM procurement begins with the programming of a SHIPALT in NDE-NM. Alteration programming and budgeting by the CNO for Title "K" and "K-P" SHIPALTs or programming by the TYCOM for Title "D" SHIPALTs establishes the material item as a planned requirement to be budgeted and procured. The NDE-NM SHIPALT Bill Of Material (BOM) identifies HCPM, CPM and NSA Provided Material. LLTM is identified in the BOM and designated for procurement in the Advance Planning Letter. IAPM is identified in the SIDs and procured by the NSA. SHIPALT material is not procured for Title "K" and "K-P" SHIPALTs that are not programmed or budgeted or for Title "D" SHIPALTs that are not programmed.

1-4.3.4 Integrated Logistics Support (ILS) Certification Form

The equipment/system Life Cycle Manager (LCM) identifies to the SPM the requisite ILS products as well as a plan of action and milestones to obtain those ILS products on the ILS Certification Form. As such, the SPM can evaluate the ILS readiness and resolve logistics issues prior to approving platform configuration changes. ILS Certification occurs NLT A-4. The

impacted ILS products are identified and developed concurrently with development of the alteration to ensure delivery of all requisite ILS products by End Of Availability (EOA)/End Of Installation (EOI).

1-4.4 SHIPALT Implementation

This is the final process for the preparation and installation and support of a SHIPALT. The process involves final installation drawings, material fabrication and assembly, all required ILS products provided to the ship, and establishment of new configuration baseline records and drawings, and SSR updates.

1-4.4.1 SHIPALT Accomplishment

Based on the CNO-approved SHIPALT Program, the SPM issues a SHIPALT Authorization Letter for Title “K”, “K-P”, “D” and “F” SHIPALTs, AERs, and equipment alterations, including the required material information. This letter is sent to the NSA to arrive by A-12 or as late as A-6 with agreement from the applicable NSA. The tasking and its associated funding, coupled with the advance planning efforts and LLTM, allow the NSA to plan and accomplish designated SHIPALTs during a scheduled availability. The TYCOMs authorize, fund and schedule Title “D” and “F” SHIPALTs and AERs. Ship’s forces accomplishment may be directed by the TYCOM via tasking letters, NDE-NM, and for submarines the TYCOM Alteration Management System (TAMS).

1-4.5 Equipment Alteration Process Overview

Fleet modernization is not limited to the SHIPALT process. Equipment Alterations such as ORDALTs and MACHALTs are modifications to systems or equipments that were either part of the new construction baseline or previously introduced through the SHIPALT process. Equipment alterations are self-contained; they do not impact ship’s distribution systems, e.g. Therefore, SPM involvement with the equipment alteration process is limited. The timeline and processes for equipment alterations differ. Major types of documentation include Class I ECPs, Configuration Control Board Directive (CCBD) and the specific equipment alteration type instruction as opposed to the JCF, SAR, and SID for SHIPALTs. Another distinguishing factor is that Equipment Alterations are typically packaged by the LCM with all installation material and instructions, test and checkout material, and ILS products all provided prior to the start of installation of the alteration. Although the same logistics elements apply to both SHIPALTs and Equipment Alterations, LCMs perform the logistics certification process rather than the SPM.

FMP MILESTONES

Note: Milestone dates shown **reflect latest acceptable dates** to ensure inclusion into a CNO availability. All stakeholders are strongly encouraged to accelerate SHIPALT Planning milestones whenever possible.

MILESTONE	DATE	COMMENTS
JCF Submitted	A-16	
JCF Approved	A-14	The SPM shall adjudicate JCFs within 2 months of submittal
Task/Fund Development of SAR Data	A-14	The SPM shall designate the activity responsible for the development of SAR data, normally the Planning Yard (PY)
ICDs Delivered to SAR Developer/PY	A-14	
PARM Developed SAR Information Submitted to SAR Developer	A-13	The cognizant PARM shall submit required SAR data within one month of JCF approval by the SPM
Complete Development of SAR Data	A-12	The SAR developer shall complete the development of SAR data within two months of tasking/funding
SPM Authorization Letter	A-12	Authorization to proceed with planning for Availability may include non-mature/currently non-funded SHIPALTs at SPM option.
Task/Fund SID Development	A-12	
Approval of SAR	A-11	The SAR shall be approved by the SPM or other activity designated at JCF approval within one month of SAR data completion
Issue Drawings	A-12 to A-6 (AIT DWGs NLT A-4)	1) Drawings for AIT installations do not need to be delivered to the NSA at A-6. Drawings shall be delivered NLT A-4. 2) Drawings shall be delivered incrementally from the PY to the NSA. In cases where a contract award is required prior to A-3, a drawing delivery schedule shall be negotiated between the PY and NSA. 3) In cases where drawing concurrence/approval is required (SPAWAR, RPPY, etc.), either a note shall be placed on the drawing indicating that production work may not commence without concurrence/approval or the drawings shall be clearly marked as preliminary and provided to the NSA NLT A-6. Final drawings and/or drawing revisions with the necessary concurrences/approvals shall be issued NLT A-4.
Final NDE-NM Material Reconciliation	A-6	Update NDE-NM based on drawing Bill of Material
Identification of AIT Support Services Requirements	A-4.5	A-135 days as defined by NSTS 9090-310 – "The AIT Manager is responsible for providing advance notification of alteration accomplishment requirements/impacts and making arrangements (including funding) for any required support services not being provided by the AIT."
Delivery of Drawings to the NSA	A-4	Delivery of **all** drawings to NSA.
ILS Cert Plan approved by SPM	A-4	SPM reviews and provides final approval of ILS plan
Start of Availability	SOA	

Figure S1-2

SUBSECTION 1-5
FLEET MODERNIZATION PROGRAM MANAGEMENT INFORMATION SYSTEM (FMPMIS)/NAVY DATA ENVIRONMENT-NAVY MODERNIZATION (NDE-NM)

1-5.1 Background.

FMPMIS was designated by reference S1(a) as the official US Navy authoritative database to provide automated and timely information to the FMP community. NAVSEA is in the process of transitioning from FMPMIS to NDE-NM. NDE-NM is a web enabled enterprise model that will integrate and merge existing modernization, maintenance and logistics structures into a single architecture system that provides timely FMP information that supports planning, programming, budgeting, management and execution of the FMP.

FMPMIS consists of three subsystem modules tied together into one federated system with the Logistics module being the key subsystem. FMPMIS has combined the three separate functions, Logistics, Program, and Execution into one system built on a single unified database. Substantial efficiencies and increased effectiveness have been realized through combining the three databases and upgrading the management tools to better meet the information requirements of the US Navy. FMPMIS Logistics Module has been integrated into the NDE-NM enterprise data architecture to improve the coordination and visibility of FMP planning data. As a result of Navy reorganizations and changes adopted in the FMPMIS redesign, some or all the subsystems may be subsequently renamed, or absorbed into the redesigned database. These changes will not affect the fact that FMPMIS is the official, authoritative repository for FMP planning information and that access to FMP data shall be exercised using approved and secure access methods or intersystem interfaces.

1-5.2 NDE-NM (Logistics Application) (formerly FMPMIS Logistics Module)

NDE-NM (Logistics application) is a tool that tracks and maintains logistical data for modernizing ships in the Navy. The purpose of NDE-NM (Logistics application) is to store all the engineering information, materials, equipment and management support required to perform modernizations to the right place at the right time. This includes alteration information, automated tracking of materials usage and requirements, alterations scheduling and completion status and detailed shipyard scheduling.

1-5.2.1 Program Module

The Program module of FMPMIS is a tool that produces detailed financial compilation data required for FMP budget submissions; provides automated program/fiscal scenarios used to adjust program budgets to remain within controls by utilizing current planning information incorporated in NDE-NM (Logistics application). The Program module allows planners to explore various combinations for assigning allocated funds, comparing projects for greatest overall effectiveness, and conducting "what-if" projections to balance identified needs.

1-5.2.2 Execution Module

The Execution module provides an electronic workflow environment that processes approximately 5000 funding documents each year. The module supports financial planning,

funding document preparation, cash management, budget change and tracking, and reporting. It promotes the accuracy of funding by validating funding documents against remaining budget, and promotes the timeliness of funding for availabilities through the systematic production of the funding documents.

The Execution module is comprised of six major subsystems, which correspond to primary FMP budget execution functions as follows:

- The Document subsystem supports the processing of the funding documents, and allows users to create, approve, and transmit funding documents.
- The Plan subsystem allows users to enter the Obligation Plan for the fiscal year.
- The Cash subsystem supports the FMP offices entry of the cash (apportionment) received, and tracks financial status by automatically debiting/crediting the Sponsor/SPM account when documents are issued.
- The Control subsystem supports the entry of budget control data.
- The Program subsystem allows users to enter current estimates for availabilities, and view the Shipsheet and SFL Summaries.
- The reports subsystem allows users to report information in the Execution module.

SUBSECTION 1-6 FMP SECRETARIAL WAIVER PROCESS; STATUTE GOVERNING MODIFICATIONS WITHIN FIVE YEARS OF DECOMMISSIONING

1-6.1 Policy

The decommissioning status of Navy ships shall be evaluated as an integral part of the modification request. Modifications to be installed on ships within five calendar years of the ship's decommissioning have unique requirements, mandated by law, which must be followed before any appropriated funds can be obligated or expended for such purpose. To meet these requirements and to ensure vital modifications are expeditiously installed, all activities requesting modifications on ships within five calendar years of decommissioning will submit the required information, in accordance with the procedures outlined in this subsection.

1-6.2 Background

Since 1991, there has been a statutory prohibition on the use of funds to modify a weapons platform within five years of its decommissioning, unless the Secretary of the Navy (SECNAV) waives this restriction on the basis of national security. Safety modifications are excluded from this statute. The Fiscal Year (FY) 98 Department of Defense (DoD) Appropriations Act is the permanent statutory prohibition. Public Law 105-56, Title VIII, Sec. 8053, Oct 8, 1997, 111 Stat. 1232, (hereinafter referred to as "Section 8053") provides that:

> *"None of the funds provided in this Act and hereafter shall be available for use by a military department to modify an aircraft, weapon, ship or other item of equipment, that the military department concerned plans to retire or otherwise dispose of within five years after completion of the modifications:*
>
> *Provided, that this prohibition shall not apply to safety modifications;*
>
> *Provided further, That this prohibition may be waived by the Secretary of a military department if the Secretary determines it is in the best national security interest of the United States to provide such waiver and so notifies the congressional defense committees in writing."*

The SECNAV has delegated to the Assistant Secretary of the Navy (ASN) (Research, Development and Acquisition) (RDA) the authority to waive the restrictions of Section 8053.

1-6.3 Guidance on Application of the Law

Section 8053 governs all modifications that upgrade or enhance the ship or other weapons system's performance, regardless of:

- Dollar amount;
- Extent of physical modifications to the weapons platform;
- Temporary nature of the installation; or Reusability of the equipment.
- Safety Modifications. If the modification falls within the "safety modification" exemption from Section 8503, the following procedures apply:
  - Document determination of a safety modification via a Memorandum For the Record

(MFR), detailing the rationale supporting its safety features. Such MFR shall be coordinated with legal counsel.
  - All other existing documentation for the safety modification shall be consistent with a MFR determination that it is a safety modification – for example, existing documentation should classify the modification as "safety" rather than another category of modification.
- Application of Section 8053 depends on the facts and circumstances known to the Navy at the moment of obligation of the funds.
- Section 8053 covers modification of a ship or other piece of tangible equipment that is decommissioned. Thus, Section 8053 would not cover modifications of software that do not also involve an associated hardware installation on a weapons system platform.
- Obligation of funds to prepare for the modification, such as ship checks and preparation of drawing packages, come under Section 8053 if taken in order to modify the ship, etc, within the five-year window.
- Modifications of prototype equipment, or other Research and Development (R&D) funded modifications must comply with Section 8053.
- Section 8053 does not cover modifications that are 100% funded by non-appropriated funds. However, if any portion of the alteration is funded by appropriated funds then Section 8053 applies.

1-6.4 Procedures

Waiver requirements and information shall be submitted as soon as it is apparent that completion of the modification will be completed within the five-year window. This can be as early as submission of the original modification request (Proposed Military Improvement (PMI), Proposed Survivability Improvement (PSI) or Proposed Technical Improvement (PTI)) or when programming an older modification for installation. The current Ships and Aircraft Supplemental Data Tables (SASDT) shall be utilized to determine the five-year window. Because the planned decommissioning date is not usually known until the year prior to decommissioning, the last day of the fiscal year in which SASDT shows the ship being decommissioned will be used for planning. For example, if SASDT shows a ship to be decommissioned in FY 07, then the ship decommissions the last day of FY 07 (30 September 2007) and enters the window requiring a waiver on 1 October 2002.

The following minimum information is required when requesting a waiver:

- The fiscal year and type of appropriations to be used for the modifications.
- The total estimated cost to perform the modifications (equipment purchase costs, installation costs, and removal costs (if equipment is reusable). (Note: Each category must be identified by fiscal year and appropriation.)
- A detailed description of the modification work e.g., explanation of the specific work to be done; identification of any new equipment to be procured; identification of any equipment to be modernized (performance capabilities to be enhanced).
- The planned date of disposal or decommissioning of the platform.
- The planned date the installation will complete.
- If equipment is to be installed on a platform that is to be disposed of within five years, is the equipment separable and useable after disposal of the platform?
- A detailed description of the need for, and purpose of, the modifications.

- Describe the impact to the Navy if the modifications are not done.
- Date waiver approval is required by to allow for advance planning i.e. ship check, material procurement, etc.

1-6.5 Administrative Waiver Process

Once the requirement for a waiver is identified, the waiver shall be processed as follows:

- Initiation of the waiver shall be via Navy message to the cognizant TYCOM. Message request should come from the ship, equipment/system program manager, NAVSEA SPM or Program Executive Officer (PEO). SYSCOMs should attempt to identify specific modification that will be installed fleet-wide (regardless of individual ship decommissioning status) to Commander in Chief U.S. Atlantic Fleet/Commander in Chief U.S. Pacific Fleet (CINCLANTFLT/CINCPACFLT) for consideration for a "consolidated waiver" to cover all ships anticipated to need the SECNAV waiver for that specific modification. (Such as all ships within a Battle Group that may receive the same modification.) Copies shall be provided to all activities that may be involved in installation of the modification.
- The TYCOM shall then provide the waiver request to CINCLANTFLT or CINCPACFLT for endorsement.
- CINCLANTFLT/CINCPACFLT/COMFLTFORCOM shall then request the waiver from the appropriate OPNAV Program and Requirements Sponsor: N60 and N2 for Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance and Targeting (C4/ISRT) Systems; N42, N75, N76, N77, or N78 for ship HM&E and Combat Systems.
- The Program Sponsor shall then prepare the formal waiver request package including the minimum information described above and coordinate concurrence within OPNAV. Once required concurrence is obtained, the Program Sponsor shall forward the waiver request package to ASN (RDA) for further processing and approval.

SUBSECTION 1-7 FMP MANAGEMENT AND OPERATIONS MANUAL CONTENTS

The FMP Management and Operations Manual is divided into two volumes. Volume 1 contains 12 sections, two of which are blank. Volume 2 contains Appendix A through H of which three are blank. The two volumes collectively provide the objectives, policy, processes and procedures of the FMP. The following is a synopsis of each section and appendix of the this manual:

Volume 1

- **Section 2: General Policies and Responsibilities** - Describes overall top level policies and responsibilities governing planning and execution of ship alterations through the FMP.
- **Section 3: Intentionally blank (deleted).**
- **Section 4: SHIPALT Design and Development Process** - Describes the policies for all design, development, and documentation associated with the alteration of ships, beginning with identification of proposed improvements and concluding with the update and delivery of ILS products.
- **Section 5: Intentionally blank (incorporated into Section 4).**
- **Section 6: Financial Management** - Describes policies, procedures, and responsibility for budgeting, funding, and financial management of SHIPALT installations.
- **Section 7: Material Management** - Describes the policies, procedures and responsibilities for ensuring that material for SHIPALT installation is available when required.
- **Section 8: Configuration and Logistics Management** - Describes responsibilities for procuring, updating, and tracking key ILS elements to ensure availability of ILS products to support SHIPALTs when installed. This section also indicates responsibility for the preparation of various ILS and Configuration Management End Of Availability (EOA)/End Of Installation (EOI) Status/Verification Reports.
- **Section 9: Special Alteration Programs** - Describes policy, procedures, and guidance for the preparation, submission and approval of Machinery Alterations (MACHALTs), Ordnance Alterations (ORDALTs) as well as Combat Systems (CSs) and Electronic Equipment and Systems Field Changes (FCs), Anti-Submarine Warfare (ASW)/Combat Systems (CSs) Engineering Changes (ECs), the Submarine SHIPALT Package Program, the U.S. Coast Guard (USCG) SHIPALT Program, the Military Sealift Command (MSC) Alteration Program, the Marine Gas Turbine (MGT) Technical Directive (TD) Program, the Space and Naval Warfare Systems Command (SPAWAR) FC Implementation Program (FCIP) and Temporary Alterations (TEMPALTs).
- **Section 10: Advance Planning and SHIPALT Authorization Letters** - Includes requirements for drafting, releasing, and changing Advance Planning Letters and SHIPALT Authorization Letters.
- **Section 11: Fleet Modernization Program Management Information System (FMPMIS)/NAVY Data Environment-Navy Modernization (NDE-NM)** - Describes content, capabilities, and management of the FMPMIS database, the official repository of all non-financial planning data relating to the FMP. It also describes the FMPMIS Logistics

Module, Program Module and Execution Module subsystems of FMPMIS and their transitioning to NDE-NM.

- **Section 12: Type Commander (TYCOM) Alteration Program -** Describes the processes by which the TYCOMs manage their responsibilities in the planning, programming and installation of Title "D" and "F" SHIPALTs, and Alterations Equivalent to a Repair (AERs).

Volume 2

- **Appendix A: Technical Specifications -** Includes the following Technical Specifications pertinent to the SHIPALT Design and Development process: SHIPALT Liaison Action Record (LAR), Justification/Cost Form (JCF), Ship Alteration Record (SAR), SHIPALT Installation Drawing (SID) Preparation, Ship Selected Record Drawing (SRD) Preparation, and Alteration To Ships Accomplished By Alteration Installation Teams (AITs).
- **Appendix B: Planning Yard Assignment Matrix -** Lists the Planning Yard for every US Navy ship by hull and reactor plant.
- **Appendix C: Ship Selected Records (SSRs) -** Details policies, procedures, and responsibilities for the preparation and distribution of Selected Record Drawings (SRDs), Selected Record Data, and Allowance Lists.
- **Appendix D:** Appendix D has been deleted. SHIPALT reports are no longer being developed.
- **Appendix E:** Appendix E has been deleted and will be used as reference material.
- **Appendix F:** Appendix F has been incorporated into Section 8: Configuration and Logistics Management.
- **Appendix G: Alteration Functional Identification Numbers (FINs) -** Contains the listing of FINs for use in the preparation of SARs.
- **Appendix H: SAR Alteration Material List (AML) Preparation Guide -** Contains guidance on how to prepare SAR material lists and provides guidelines for Quality Assurance (QA) of the data.

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SUBSECTION 2-1 GENERAL POLICIES

2-1.1 Scope of Policies and Responsibilities

This section of the Fleet Modernization Program (FMP) Management and Operations Manual presents general system level policies and responsibilities governing planning and execution of Ship Alterations (SHIPALTs) through the FMP. Only those policies and responsibilities applying to more than one aspect of the program are presented in this section. Sections 4 through 12 provide detailed policies specific to the subjects of those sections.

2-1.2 References for Section 2

S2(a) OPNAVINST 4720.2, Series, Subj: Fleet Modernization Program Policy
S2(b) Appendix B , Subj: Planning Yard (PY) Assignment Matrix

2-1.3 Policy

Excerpts from references S2(a) and S2(b) that are essential to understanding the rest of this manual are:

- Changes to ships are authorized only through the FMP. Alteration or rearrangement of ships other than as authorized in the FMP is prohibited.
- Use of FMP funds is authorized only for accomplishment of work specified by SHIPALTs listed in the execution year program as amended by Approved Escrow Changes. The scope of authorized work includes advanced installation planning and support and any first-time design necessary for Type Commander (TYCOM) directed SHIPALTs.
- Material budgeting and procurement and installation planning may not be initiated for a SHIPALT until the SHIPALT has been programmed and budgeted for Title “K” & “K-P” SHIPALTs and programmed for Title "D" SHIPALTs for a specific hull in a given fiscal year and entered into the Navy Data Environment-Navy Modernization (NDE-NM) (Fleet Modernization Program Management Information System (FMPMIS) Application).
- SHIPALTs will not be programmed for accomplishment if, before Start of Availability (SOA), Long Lead Time Material (LLTM) or design is not expected to be available. The Ship Program Manager (SPM)/TYCOM will obtain verification of deliverability of LLTM, design, Integrated Logistics Support (ILS) and funding prior to authorizing accomplishment of any SHIPALT.
- SHIPALTs intended for accomplishment in two or more increments, due to complexity, manday limitations, and duration of ship availability, etc., will have each increment identified separately.
- First-time alterations will normally be programmed for accomplishment in the outyears in order to allow adequate time for the required design work and equipment procurement. The SHIPALT development process normally requires advance-planning actions to start fourteen (14) months prior to SOA.
- Unless designed for incremental accomplishment and numbered separately, partial accomplishment of individual SHIPALTs will not normally be programmed or authorized. If operational requirements dictate, partial SHIPALTs can be authorized by Chief of Naval Operations (CNO), with Platform Sponsor concurrence, on a case basis when the alteration is to be completed within one (1) year after availability completion (2 years for CVs, CVNs, SSNs).

- SHIPALT design and development shall not be undertaken for ships scheduled for deactivation within five years without prior approval from CNO.
- NDE-NM (FMPMIS Legacy Program Execution) is the official, authoritative repository for FMP planning, programming and material status information and access to the NDE-NM data base shall be exercised using approved access methods or intersystem interfaces.
- ILS products must be available to support the installation and checkout of systems and equipment and all ILS products must be on board by the end of the availability in which the alteration is installed.
- Ship Selected Records (SSRs) must be fully updated to reflect the ship configuration.

SUBSECTION 2-2 RESPONSIBILITIES

2-2.1 Scope of Responsibilities

General, system level responsibilities of major participants in the FMP process are presented in Subsections 2-2.2 through 2-2.8. Responsibilities pertaining to specific functions (material management, ILS, etc.) may be found in other appropriate manual sections.

2-2.2 Chief of Naval Operations (CNO) Responsibilities

- Define the FMP for outyear planning by programming SHIPALTs in the NDE-NM.
- Define an integrated FMP consisting of SHIPALT installations and equipment procurements.
- Define all policy for programming and execution.
- Update the overhaul schedule in NDE-NM and issuing the official overhaul schedule.
- Develop the FMP budget.

2-2.3 Naval Sea Systems Command (NAVSEA) Responsibilities

Manage and execute the FMP for, and as directed by, CNO in accordance with reference S2(a).

2-2.3.1 Ship Program Manager (SPM) Responsibilities

- Act as primary point of contact for coordination of FMP efforts for ships under their cognizance.
- Develop SHIPALT estimates, entering them in NDE-NM for SHIPALTs under NAVSEA cognizance, and programming for installation costs for CNO scheduled availabilities.
- Authorize, task, negotiate, and line management of all Title "K" SHIPALT efforts including advance planning, design, configuration control, and installation.
- Task and line management of Title "D" and “F” SHIPALT efforts limited to design and configuration control.
- Final approval of all SHIPALT design and development efforts.
- Advise the Systems Command (SYSCOM) Life Cycle Manager (LCM)/Participating Manager (PARM) on the status of End of Availability (EOA) ILS Verifications.
- For all SHIPALTs that have been approved by CNO for Alteration Installation Team (AIT) installation, ensure that all required NDE-NM worthy material that will be drawn down from the supply system is entered into the NDE-NM database.

2-2.3.2 Integrated Warfare Systems Directorate (NAVSEA 05) Responsibilities

Ensure technical integrity of the SHIPALT development process by establishing technical policies and procedures for the design and development of SHIPALTS by headquarters and field activity Engineering Agents.

2-2.3.3 NAVSEA 04X Responsibilities

Manage Naval Shipyards (NSYs) and Supervisors of Shipbuilding, Conversion and Repair (SUPSHIPs).

2-2.3.4 NAVSEA 04M Responsibilities

- Execute delegated responsibilities to act as the principal NAVSEA agent for the FMP as

defined in CNO and NAVSEA Directives.
- Manage the NDE-NM (FMPMIS Legacy Application) system, the official FMP database.
- Maintain current the FMP Manual and other FMP related directives.

2-2.4 Planning Yard (PY) Responsibilities

Act as class engineering Design Agent (DA) for SHIPALT design and development as delegated by the SPM. Reference S2(b) lists PY assignments.

2-2.5 Naval Supervising Activity (NSA) Responsibilities

- Accomplish FMP efforts tasked and funded by SPM, or by TYCOMs for Title "D" and "F" SHIPALTs.
- Obtain PY approval of any SHIPALT material/equipment requirements received from activities other than the cognizant SPM or PY.
- Advise SPM immediately when unusual circumstances beyond the control of the industrial activity impact the quality, cost, or completion time for planning and/or executing a SHIPALT. Unusual circumstances are defined as, but not limited to (a) acts of God, (b) strikes, (c) incorrect or incomplete guidance or design efforts received from other NAVSEA activities, and (d) non-receipt or substitution of material which causes a disruption in design or production schedules.
- Upon completion of the availability, report SHIPALT completion, show the status of completion of each alteration and listing those items authorized but not undertaken, to the TYCOM in accordance with existing instructions. Copies of the completion report will be sent to the PY, applicable Squadron/Group Commander, applicable Ship Availability Planning and Engineering Center (SHAPEC) or Submarine Maintenance, Engineering, Planning and Procurement (SUBMEPP) and the applicable SPM.

2-2.6 Life Cycle Manager (LCM) Responsibilities

- Maintain technical and logistics authority over assigned equipment throughout its life cycle.
- Accomplish all equipment configuration changes in accordance with the FMP policy and coordinating installations with appropriate SPM.

2-2.7 Material Manager Responsibilities

- Identify, budget for, and procure SHIPALT material based on FMPMIS programming for a given fiscal year (FY) on a given hull.
- Maintain accurate material availability status in FMPMIS.
- Ensure material availability for SHIPALT installation.
- Identify major components supplied as part of major equipment or system in the FMPMIS Material Dictionary.
- Enter Material Identifications (MTLIDs) and Headquarters Centrally Provided Material (HCPM) or Centrally Provided Material (CPM) in the NDE-NM Material Dictionary.
- Budget for both equipment and installation funds for Field Changes (FCs), Engineering Changes (ECs), Ordnance Alterations (ORDALTs), Machinery Alterations (MACHALTs).

2-2.8 Type Commander (TYCOM) Responsibilities

- Program, budget, schedule and authorize Title "D" and "F" SHIPALTs and Alterations

Equivalent to Repair (AERs).

- Maintain accurate Title "D" and "F" SHIPALTs and AERs programming status in NDE-NM to ensure timely completion of design efforts.
- Review and comment on all Title "D" and "F" SHIPALT proposals regarding essentiality, level of accomplishment and likelihood of being funded.
- Review material availability for Title "D" alterations and authorizing material procurements through programming in NDE-NM.

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SUBSECTION 4-1 INTRODUCTION TO SHIPALT DESIGN AND DEVELOPMENT PROCESS

4-1.1 Scope of Section 4

This Section of the Fleet Modernization Program (FMP) Management and Operations Manual details the policies for all design, development, and documentation associated with the alteration of ships, beginning with identification of proposed improvements and concluding with the update of Ship Selected Records (SSRs) incident to installations (see Figure S4-1). Figure S4-2 shows responsibilities for managing and accomplishing each of the steps in the process. Figure S4-3 provides a summary of Ship Alteration (SHIPALT) development milestones.

4-1.2 Nuclear Ship Alteration (SHIPALT) Exception

Nuclear SHIPALTs under the cognizance of the Naval Sea Systems Command (NAVSEA) 08 are exempt from the procedures of Subsections 4-2 through 4-12 of this manual. Nuclear alteration policies and responsibilities are in accordance with Subsection 4-12, and references S4(a) through S4(c).

4-1.3 References for Section4

S4(a) NAVSEA 0989-058-1000, Subj: Destroyer Tender & Submarine Tender Nuclear Support Facility Overhaul & Repair Specification

S4(b) NAVSEA 0989-LP-037-2000, Subj: Commissioned Submarine Ships General Reactor Plant Overhaul & Repair Specification

S4(c) NAVSEA 0989-LP-043-0000, Subj: Commissioned Surface Ships General Reactor Plant Overhaul & Repair Specification

S4(d) NAVSEAINST 5400.97, Series, Technical Authority Principles and the Responsibility, Accountability and Authority of the NAVSEA Chief Engineer

S4(e) NAVSEAINST 5400.57, Series, Engineering Agent Assignment and Technical Authority

S4(f) NAVSEAINST 5400.61, Series, Headquarters Engineering and Technical Authority Policy

S4(g) NAVSEAINST 5400.95, Series, Shipyard, SUPSHIP, and Fleet Engineering and Technical Authority Policy

S4(h) NAVSEAINST 5400.98, Series, Warfare Center Engineering and Technical Authority Policy

S4(i) CINCLANTFLT/CINCPACFLTINST 4720.3, Series, Management of Afloat Combat Systems and C4I Installations and Improvements

S4(j) Appendix B , Subj: Planning Yard (PY) Assignment Matrix

S4(k) NAVSEA Technical Specification 9090-700, Series, Subj: Ship Configuration and Logistics Support Information System

S4(l) NAVSEAINST 7000.9, Series, Subj: Financial Management Manual for Command Headquarters

S4(m) Appendix A, Subj: NAVSEA Technical Specification 9090-210, Series, Justification/Cost Form

S4(n) Appendix A, Subj: NAVSEA Technical Specification 9090-500, Series, Ship Alteration Record

S4(o) NAVSEAINST 7300.14, Series, Subj: Classification of Cost Estimates for Ships

S4(p) Appendix A, Subj: NAVSEA Technical Specification 9090-600, Series, Ship Alteration Drawing Preparation

S4(q) Appendix A, Subj: NAVSEA Technical Specification 9090-100, Series, Liaison Action Record

S4(r) MIL-HDBK-61, Series, Configuration Management Guidance

S4(s) NAVSEAINST C9210.4, Series, Subj: Changes, Repair and Maintenance to Nuclear Powered Ships

S4(t) NAVSEA Technical Specification 9090-1500, Series; Provisioning, Allowance and Fitting Out Support (PAFOS) Manual

S4(u) Appendix A, Subj: NAVSEA Technical Specification 9090-310, Series, Alterations Accomplished by Alteration Installation Teams (AIT)

S4(v) NAVSEAINST 4720.11, Series, Subj: Alterations to Ships Accomplished by Alteration Installation Teams.

S4(w) Appendix C, Subj: Ship Selected Records

S4(x) NAVSEAINST 9210.29, Series, Procedure G-1, Subj: Nuclear Powered Ships - Maintaining: Reactor Plant Manuals, Reactor Plant Component Technical Manuals and Tender Nuclear Support Facilities Manuals

S4(y) NAVSEAINST 9210.25, Series, Subj: Policy and Responsibility for Naval Reactor Plant Supply Support

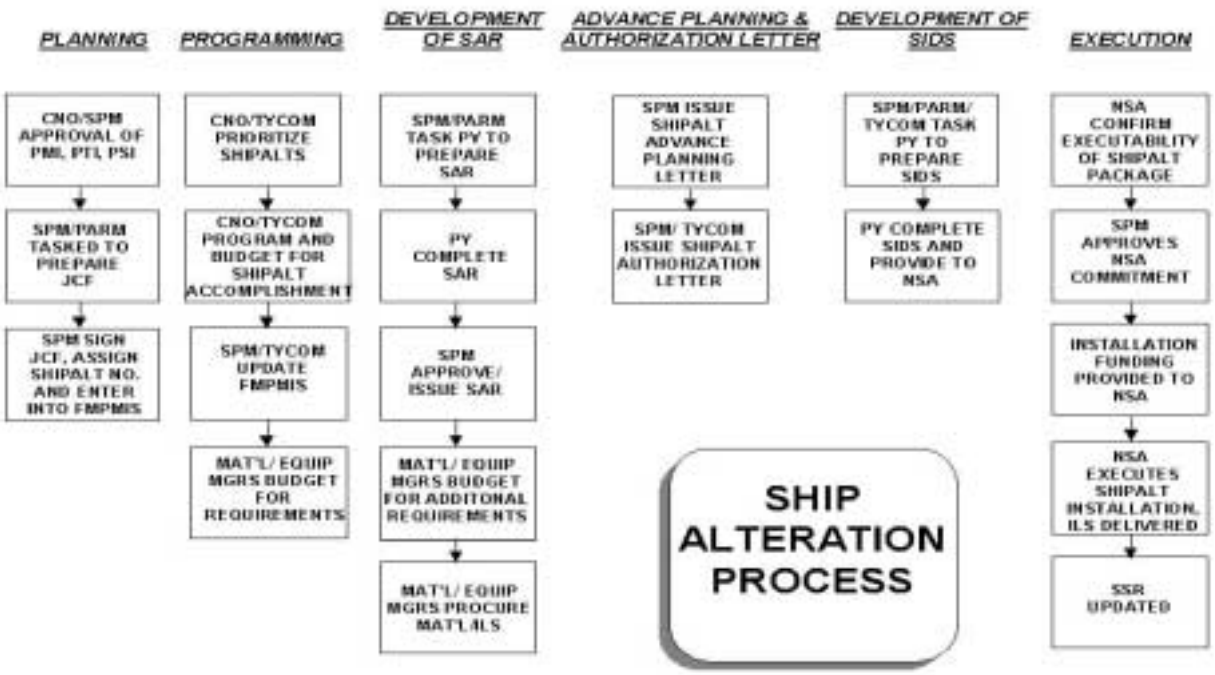

Figure S4-1 Ship Alteration Development Process

Figure S4-2 Ship Alteration Development Responsibilities

FUNCTION	FINANCIAL MANAGE MENT	FUNDING ACCOUNT	PROGRAM MANAGER	TASKING INITIATOR	TASKING MECHANISM	TASKING RECIPIENT	LUMP SUM/ PARTICULAR TASK
C&F (*) STUDIES	SPM/PARM	OPN/ O&MN	SPM	N43	TASKING LTR TO SPM/PARM	PLANNING YARD	
JCF (*) DEVELOP MENT	SPM/PARM	OPN/O&MN DSA LINE ITEM/EQUIP. LINE	SPM	SPM/PARM	SPM/PARM TASKS PY	ENGINEERING AGENT	
SAR DEVELOP MENT	SPM/PARM	OPN/O&MN DSA LINE ITEM	SPM	SPM/PARM	SAR TASKING LETTER	PLANNING YARD	LUMP SUM
SID DEVELOP MENT	SPM/PARM	OPN DSA /O&MN LINE ITEM	SPM	SPM/PARM	TASKING LETTER	PLANNING YARD	BY HULL
MDS SERVICES	SPM/PARM	OPN/O&MN DSA LINE ITEM	SPM	SPM/PARM	LTR/MSG	PLANNING YARD	LUMP SUM
SSR MAINT ENANCE UPDATE	SPM	OPN/O&MN DSA LINE ITEM	SPM	SPM	SHIPALT AUTHORIZA TION LETTER	PLANNING YARD	BY HULL

Note (*)

C&F Studies: As requested by CNO. Normally completed with NAVSEA internal resources. Formal tasking and separate funding are required for farm-out.

JCF Development: CNO directs JCF Development for PMI's & PSI's & the SPM for the PTI. JCFs are normally completed with SPM/PARM internal resources.

Figure S4-3 Summary of SHIPALT Development Milestones (**Note**: Milestone dates shown **reflect latest acceptable dates** to ensure inclusion into CNO availability. All stakeholders are strongly encouraged to accelerate SHIPALT Planning milestones whenever possible.)

Milestone	Date	Comments
JCF Submitted	A-16	A-16 equates to 16 months before start of availability
JCF Approved	A-14	SPMs shall adjudicate JCFs within 2 mo. of submittal
Task/Fund Development of SAR Data	A-14	The SPM shall designate the activity responsible for the development of SAR data, normally the Planning Yard
ICD's Delivered to SAR Developer / Planning Yard	A-14	
PARM Developed SAR Information Submitted to SAR Developer	A-13	The cognizant PARM shall submit required SAR data within one month of JCF approval by the SPM
Complete Development of SAR Data	A-12	The SAR developer shall complete the development of SAR data within two months of tasking/funding
SPM Authorization Letter	A-12	Authorization to proceed with planning for Availability may include non-mature/currently non-funded SHIPALTs at SPM option.
Task/Fund SID Development	A-12	
Approval of SAR	A-11	The SAR shall be approved by the SPM or other activity designated at JCF approval within one month of SAR data completion
Issue Drawings	A-12 to A-6 (AIT dwgs NLT A-4)	1) Drawings for AIT installations do not need to be delivered to the NSA at A-6. Drawings shall be delivered NLT A-4 . 2) Drawings shall be delivered incrementally from the Planning Yard to the NSA. In cases where a contract award is required prior to A-3, a drawing delivery schedule shall be negotiated between the PY and NSA. 3) In cases where drawing concurrence/approval is required (SPAWAR, RPPY, etc.), either a note shall be placed on the drawing indicating that production work may not commence without concurrence/approval or the drawings shall be clearly marked as preliminary and provided to the NSA NLT A-6. Final drawings and/or drawing revisions with the necessary concurrences/approvals shall be issued NLT A-4.
Final FMPMIS Material Reconciliation	A-6	Update FMPMIS based on drawing Bill of Material
Identification of AIT Support Service Requirements	A-4.5	A-135 days as defined by NSTS 9090-310C – "The AIT Manager is responsible for providing advance notification of alteration accomplishment requirements/impacts and making arrangements (including funding) for any required support services not being provided by the AIT."
Delivery of Drawings to the NSA	A-4	Delivery of **all** drawings to NSA.
ILS Cert Plan approved by SPM	A-4	SPM reviews and provides final approval of ILS plan
Start of Availability	A	

SUBSECTION 4-2 ORGANIZATION RESPONSIBILITIES

4-2.1 Scope of Subsection 4-2

This subsection details the responsibilities of each organization involved in the FMP process.

4-2.2 Background for Subsection 4-2

The Commander, Naval Sea Systems Command (COMNAVSEASYSCOM) acts as executive agent for the Chief of Naval Operations (CNO) in the execution of the FMP. The NAVSEA Integrated Warfare Systems Directorate (NAVSEA 05) ensures the technical integrity of the SHIPALT development process by establishing technical policies and procedures for SHIPALT development, and design. In accordance with reference (d), NAVSEA 05 is designated the NAVSEA Chief Engineer (CHENG) and is responsible for Technical Authority and accountability of technical decisions made throughout NAVSEA. In accordance with references (d) through (h), NAVSEA 05 delegates Technical Authority to headquarters and field activity Engineering Agents (EAs) based on their areas of responsibility, technical integrity and expertise. The EAs are assigned the responsibilities, accountability and technical authority within a specific technical area, system or mission and typically reside in warfare centers, shipyards and other activities. EAs are accountable to NAVSEA 05 and the Ship Program Manager (SPM) for the development of SHIPALTs in accordance with technical policy, standards and processes as outlined herein. EAs are tasked and funded by the SPMs as required in the development, review or approval of SHIPALTS.

As NAVSEA Life Cycle Managers (LCM) the EAs will perform engineering analysis and develop design criteria, standards and policy for their respective functional area, systems and equipment. The SPMs act as the LCMs of all assigned ships. In concert with the Ship Design Managers (SDMs) and EAs , they act as the advocate for application of advanced technology and design concepts to ships under their cognizance and must approve technical matters affecting their ships. Communication, coordination, and cooperation between SPMs, SDMs and the EAs is essential in enabling them to fulfill their respective FMP responsibilities.

Most alterations are planned for installation throughout a ship class, or baseline/flight within a class, and are installed by the executing activity (typically a shipyard, occasionally an Alteration Installation Team (AIT)) during a CNO or scheduled availability. Installation of these alterations is focused on CNO availabilities and timelines for milestones will be designated as months before start of the availability, for example A-12 meaning availability start date minus 12 months. Most Command, Control, Communications, Computers /Intelligence Surveillance and Reconnaissance (C4/ISR) and combat system alterations are proposed by individual Participating Managers (PARMs) as early as 30 months before Deployment (D-30) of the Battle Force, as part of the D-30 Process, see reference S4(i). Milestone timelines for interoperability alterations are designated as months before Battle Force deployment, for example D-30 meaning deployment date minus 30 months. Thirty months before deployment nominally equates to A-14 on the FMP Milestone timeline. The proposed alterations may not always be mature and may not be scheduled as part of a CNO or fleet scheduled availability. The PARM and SPM have an opportunity at D-28 and D-25, to resolve alteration-scheduling issues on any proposed alterations the SPM determines are ready for installation in accordance with Figure S4-3. The SPM authorization letters should be updated to reflect these additions/deletions, to support accurate

planning for the CNO availabilities.

When the alterations are installed by an AIT in a CNO availability, the PARM is responsible for funding the installation, including any support services required. Integrating the AIT-installed interoperability alteration into the CNO availability is the responsibility of the SPM. To support this the SPM may obtain funding from the PARM (all activities within a CNO availability are under the cognizance of the SPM).

4-2.3 NAVSEA 05 Overview

NAVSEA 05, assisted by NAVSEA 53, interprets command policies and provides technical policy, standards, and processes for hull, mechanical, electrical (HM&E), electronics, and ordnance systems. NAVSEA 05/53 and the EAs provide technical evaluation and technical approval of all improvements/SHIPALTs for the SPMs. The SDMs, NAVSEA 05/53 functional groups and the EAs also provide technical direction and guidance for Design Agents, Planning Agents, and Planning Yards (PYs) in the development of SHIPALTs for the SPMs.

4-2.3.1 Technical Functions

Technical functions of NAVSEA 05 and 53 are:

- Assist in the definition of Combat System Level Architecture across warfare areas.
- Total ship integration engineering, which includes: Assessing the projected cumulative impact of SHIPALTs on a ship's stability, weight, moment, displacement, operating ability, electrical power, cooling requirements, space allocations, equipment locations, shipboard interfaces, cabling/WG restriction, Interior Communications (IC), navigation and Topside.
- Develop and technically approve Combat System Block Diagrams and Compartment Arrangement of Equipment Drawings.
- Conduct studies and investigation to identify the cost and feasibility of specific SHIPALTs and SHIPALT packages.
- Act as primary NAVSEA point of contact for technical matters in the SHIPALT development process.
- Conduct technical studies in support of development work on the Justification/Cost Form (JCF) and Ship Alteration Record (SAR).
- Conduct special design baseline studies relating to systems, subsystems, and equipment integration within a class or group of ships.
- Provide technical guidance to all tasked supporting activities for specific SHIPALTs.
- Approve technical aspects of SHIPALT development efforts and selected design efforts.
- Technically review and approve Engineering Change Proposals (ECPs).
- Technically review and approve Ordnance Alterations (ORDALTs).
- Present the proposed ship class alteration to the appropriate Ship level Configuration Control Board (CCB).
- Provide technical input and review for Interface Design Specifications (IDSs).

4-2.4 Management Functions of NAVSEA 04M

- Develop NAVSEA FMP policy and procedures in concert with all cognizant activities and direct implementation thereof, in accordance with CNO and NAVSEA direction.
- Manage the Navy Data Environment-Navy Modernization (NDE-NM) Fleet Modernization Program Management Information System (FMPMIS); the official database in support of the

FMP.
- Focus all participants on improving the process for controlling configuration changes.
- Manage modernization process improvement and provide FMP metrics.

4-2.5 Funding Coordination - Life Cycle Managers (LCMs)/Participating Managers (PARMs)

- Program, budget, and procure all Headquarters Centrally Provided Material (HCPM) and corresponding installation requirements.
- Coordinate with SPMs and AIT/Program Support Managers to ensure matching of HCPM procurements with installations.
- Maintain NDE-NM/FMPMIS Material Dictionary (Material IDs) current, allowing for lead P-1 calculation for the budget.
- Keep current the Procurement Lead Time (PLT) and material cost in FMPMIS Material Dictionary.
- Monitor material delivery and maintain current in NDE-NM the delivery status (Best Estimated Delivery Date (BEDD), Military Standard Requisitioning and Issue Procedures (MILSTRIPs), etc.).
- Notify SPM whenever substitution of NDE-NM material is being considered or accomplished.

4-2.6 Ship Program Manager (SPM) Overview

Functions of the SPM:
- Approve or delegate approval for all JCFs and SARs.
- Plan, schedule, task preparation and/or review and approve SHIPALT Installation Drawings (SIDs) (SID approval may be delegated by the SPM to the ship class Planning Yard), task SSR updates and approve Liaison Action Records (LARs).
- Coordinate SHIPALTs installed by AIT into CNO or scheduled availabilities. Funding for such coordination is to be provided to the SPM by the PARM.
- Task, negotiate, and line manage all SHIPALT design and development efforts. However, the cognizant SPM will rely on the NAVSEA 05/53 and the EAs for engineering guidance and support.
- Administer the execution of SHIPALTs.
- Review and approve all nominated Proposed Technical Improvements (PTI) for SHIPALT program qualification.
- Review and endorse to CNO Platform Sponsors all nominated Proposed Military Improvements (PMIs).
- Review and endorse to CNO Platform Sponsors all nominated Proposed Survivability Improvements (PSIs) for SHIPALT program qualification.
- Manage the Cost & Feasibility (C&F) Studies including development and submission of budget submittals and submittal of Quarterly Reports to CNO.
- Assign a SHIPALT number and ensuring the number, the SHIPALT brief and the applicable JCF data elements are entered into the FMPMIS after JCF approval.
- Conduct liaison with non-NAVSEA technical activities to obtain needed guidance and direction for execution of Design Services Allocation (DSA) tasks.
- Develop and adjust planning estimates on all tasking documents based on information from

cognizant design activities, FMPMIS reports, Ship Departure Reports, experience from similar SHIPALTs, and historical data sources.

- Develop projected SHIPALT drawing requirements (at the SHIPALT level), budget year Configuration Overhaul Planning (COP) requirements, and execution year SSR requirements (at the hull level) of DSA budget development and planning.
- Request funding for tasked development activities subsequent to or concurrent with the issuance of tasking documents.
- Generate tasking documents and amendment requests, as well as specifying cost estimates and completion dates for all DSA development efforts.
- Maintain current SHIPALT Bill of Material (BOM) in FMPMIS.
- Identify all previously developed or required documentation, technical data, and drawings maintained in-house when tasking design efforts.
- Identify compensation or requesting reprogramming to fund development efforts that exceed established cost estimates and cannot be otherwise funded.
- Monitor SHIPALT development tasks to ensure that they are executed, completed, and delivered, with acceptable quality, within specified timeframes and in accordance with guidelines delineated in tasking documents.
- Review all SHIPALT design efforts for conformance to material identification requirements as delineated in the Section 7 of this manual of this manual.
- Ensure that emergent requirements designated by CNO are given highest visibility to ensure that material and plans are available within specified timeframes and in accordance with tasking document guidelines.
- Review and approve LAR requests, and coordinate Naval Supervising Activity (NSA), PY, and NAVSEA 05/53 efforts in this area.
- Ensure compliance with all relevant procedures for any contracted effort, especially in the area of weight control.
- Availability completion.
- Provide overall responsibility for execution of Integrated Logistics Support (ILS) requirements in support of SHIPALTs.
- Resource Financial Manager (RFM) for budget and execution of FMP under their cognizance.
- Participate in the D-30 Process as required, to ensure successful planning and execution of the Ship baseline established at D-24.
- Ensure authorization letters are updated in accordance with the CINC approved baseline.

Note: The SPM may task selected functions to Naval activities or private contractors. This in no way diminishes the SPM management control or responsibility for the timeliness and quality of the SHIPALT products.

4-2.7 PY Responsibilities

The Planning Yard (PY), as the Ship Class DA, has a life cycle responsibility for assigned ships (PY assignments are listed in reference S4(j). PY responsibilities in support of SPMs and NAVSEA 05/53 involve providing support throughout a SHIPALT's life cycle from SHIPALT conceptualization through design resolution, integration, and accomplishment to testing and proofing. Non-Reactor Plant PY (RPPY) responsibilities in the SHIPALT process include

(Reactor Plant PY responsibilities are described in Subsection 4-12):

- Provide guidance and engineering design in support of C&F studies.
- Provide detailed technical support for JCF development efforts as tasked and funded by the cognizant SPM.
- Develop SARs for ship classes under their cognizance as tasked by the cognizant SPM.
- Submit alteration, major arrangement, and system interface drawings to the SPM for review and approval when specified in the related SARs.
- Define necessary installation/support material and ILS requirements to the cognizant SPM throughout SHIPALT development and design.
- Participate in planning conferences, design reviews, and problem reviews with the SPM, Type Commanders (TYCOMs), etc.
- Provide LAR services, including on-site engineering field services, to NSAs/IAs for clarification of requirements, review and approval of minor changes.
- Provide Miscellaneous Documentation Support (MDS) as required.
- Proof SPM specified first-time or complex SHIPALTs throughout accomplishment, and providing the associated proofing report (Proofing is to include validation of design and logistics support as defined in the SAR and ILS Certification Form, respectively).
- Maintain, modify, and distribute SSR.
- Maintain a weight control baseline system.
- Provide configuration control and maintaining configuration data.
- Develop test requirements for complex SHIPALTs when specified in the SARs.
- Develop, review and approve SIDs as tasked by the SPM/PARM.
- Provide a complete set of SIDs to the NSA and the ship receiving the SHIPALT installation.
- Consider material standardization priorities to make recommendations or initiate action to achieve intra-class, intra-Navy and intra-ship standardization.
- Provide SHIPALT design information to the Configuration Data Manager (CDM) for COP development.
- Prepare purchase specifications of all non-standard material required for the SHIPALT except for items being procured by the Hardware System Commands (HSCs). Purchase specifications must be completed No Later Than (NLT) A-10. The PY is also responsible for updating purchase specifications by incorporating all changes necessary from the revisions to planning documentation (see Subsection 4-7.4.2).
- Provide technical services to the TYCOMs and other activities responsible for maintenance/operation of ships.
- Accomplish verification shipchecks for complex or high-risk first-time SHIPALTs. Schedule verification shipchecks on Phased Maintenance Availability (PMA) ships to coincide with the contractor's pre-overhaul production shipcheck.
- Prepare rapid development SARs for ship classes under their cognizance as tasked and funded by the cognizant TYCOM.

4-2.7.1 Weight Control

The cognizant PY will establish and maintain a weight control program which ensures that each assigned ship remains within its Naval Architectural Limits. When necessary, the PY shall propose weight and/or vertical moment compensation, including the installation of ballast. The PY's proposed removals and/or ballasting plan shall be forwarded to the cognizant SPM for

approval prior to forwarding to the Overhauling Yard for Public Yard availabilities and the Planning Supervisor of Shipbuilding, Conversion and Repair (SUPSHIP) for Private Yard availabilities.

As part of the PY's weight control program, the PY will compile an Estimated Weight and Moment Report and an Actual Weight and Moment Report for each availability. The Estimated Weight and Moment Report shall be based on SHIPALT drawings and/or the latest data available prior to the ship's availability. The Actual Weight and Moment Report shall be based on updated SHIPALT drawings and include any Alterations Equivalent to Repair (AERs) and/or other work items. Both reports shall be forwarded to the cognizant SPM, cognizant Ship Availability Planning and Engineering Center (SHAPEC) activity, TYCOM, NAVSEA 05P, NSA and ship. The Estimated Weight and Moment Report shall be forwarded not later than A+1 and the Actual Weight and Moment Report shall be forwarded NLT C+2.

4-2.7.2 Configuration Control

PYs, as directed by their cognizant SPM for specific ship classes and/or systems, will maintain a ship configuration control system. The development of installation drawings by PYs maintaining configuration control will require the addition of a note on the drawings. This note, in accordance with reference S4(k) , will state that no engineering changes, waivers, or deviations will be allowed without the explicit approval of the cognizant SPM. The PY will maintain configuration control by limiting variation of design in installation drawings for ships of a class. Several mechanisms to facilitate this are listed below:

a. PY control and maintenance of the LAR system through responses to drawing change, waiver, or deviation requests.
b. Selection and maintenance of material identification criteria and procedures.
c. Review of all SHIPALTs under their cognizance.

4-2.7.3 Private Sector PYs

In certain instances, private shipyards or design contractors may possess special knowledge or expertise relative to a group or class of ships. In these cases, NAVSEA may contract directly with private shipyards or design contractors to serve as Class PYs for selected ship classes. A SUPSHIP will be assigned to administer each such contract. Private sector PY contracts require complete justification, and prior written approval of NAVSEA 09, with requests submitted by the SPM via NAVSEA 04X.

4.2.7.3.1 Contractor Responsibilities

The contract with a private sector PY or Design Agent will specify requirements for all functions discussed in this manual. Projected levels of effort for indefinite tasking (e.g., MDS or LAR services) will be established as line items in each contract. Contracts for private sector PYs will include the policies and requirements of this manual that apply to PYs. The contractor will be responsible for fulfilling all PY functions, as directed by the cognizant SUPSHIP. Where contracts also pertain to non-PY functions, the PY tasks will be separately priced and funded.

Contracts will contain clauses requiring the contractor to transfer the complete design database to a designated Navy activity as directed by NAVSEA. The database will include all originals and masters of engineering drawings, technical manuals, key design calculations and data, computer

software, etc.

4.2.7.3.2 Supervisor of Shipbuilding, Conversion and Repair (SUPSHIP) Responsibilities
The assigned SUPSHIP will be responsible for administering private sector PY contracts for NAVSEA; monitoring LARs between the contractor and other Navy activities.

4-2.7.4 PY Assignments
PY assignments and changes thereto are effected by the SPM after coordination with NAVSEA 04X and after approval by NAVSEA 09. Specific assignments covering conventional, as well as nuclear-powered ships, are contained in reference S4(j). For nuclear-powered ships, two PYs are assigned in some cases, one for the hull and one for the reactor plant.

4-2.7.4.1 Reactor Plant PY
The Reactor Plant PY is responsible for PY functions related to the reactor plants. The detailed requirements and responsibilities for these services are contained in Subsection 4-12.

4.2.7.4.2 Hull PY
The Hull PY is responsible for PY functions related to systems, components, and structures other than reactor plants.

4.2.7.4.3 Hull and Reactor Plant PY Interface
The interface between the Hull PY and Reactor Plant PY areas of responsibility is normally indicated on the drawings that cross the interface.

4-2.8 Naval Supervising Activity (NSA) Responsibilities
The NSA is the single Naval activity charged with the responsibility of oversight of work being accomplished on U.S. Naval ships during any type of availability. The NSA can be a Naval Shipyard (NSY) or a SUPSHIP (for CNO scheduled availabilities) or when work is conducted during periods in which the NSY or SUPSHIP offices do not have oversight, NSA assignment and functions will be designated by the cognizant TYCOM. The planning responsibility for specific ship availability is assigned to the specific SHAPEC, if one exists for the availability class.

FOR PURPOSES OF THIS CHAPTER, REFERENCES TO THE NSA WILL APPLY ONLY TO THE NSA FOR CNO SCHEDULED AVAILABILITIES.

NSAs are responsible for detailed planning of industrial availabilities under their cognizance. Specific functions of the NSA for CNO scheduled availabilities are:

- Provide Surveyor Quality Assurance (QA) waterfront support.
- Interface with Integrated Logistics Overhaul (ILO) and CDM in updating ship configuration and logistics records in accordance with reference S4(k).
- Prepare updates to COP for all configuration changes accomplished during the availability, if specifically tasked and funded.
- Update non-nuclear SSRs for nuclear powered ships as tasked by the PY.
- Verify (in accordance with Section 8 that all ILS products is available as needed for installation and checkout of systems and equipment by Start Of Availability (SOA). All ILS

products are delivered by the End Of Availability (EOA).
- Perform inclining experiments/trim dives as required and funded by the SPM.
- Ensure that customers authorized work is accomplished in a quality manner within approved funding and schedule.
- Participate in selected planning conferences, design reviews, and problem reviews with SPM, TYCOMs, etc.
- Provide design/engineering feedback to SPM/TYCOM and PYs concerning SHIPALT installation problems.
- Attend Work Package Integration Conferences (WPICs) or equivalent.
- Attend all major progress conferences.
- Conduct progress reviews (% complete) for in-process ship availabilities, as tasked by the SPM.

4-2.8.1 PY-NSA Interaction

Activities responsible for detailed availability planning will interact with the PY on a regular basis during preparation for, and execution of, assigned availabilities. The required tasking/documentation/information transfers are as follows:
- SIDs - When tasked by the SPM, NLT A-12, the PY will provide an integrated package of SIDs in accordance with Figure S4-3.
- LARs - LARs provide the structure for resolution of waivers, deviations, and changes identified by the industrial activity during availability execution. LAR procedures are discussed in Subsection 4-9.

4-2.8.1.1 PY On-Site Representative (OSR)

In accomplishing its responsibility as SHIPALT DA, the PY, is required to provide on-site technical support to industrial activities accomplishing the SHIPALT installation as tasked by the SPM. On-site support shall be continuous throughout a given ship availability and shall be sufficient to assure that effective technical liaison is established and maintained throughout the availability. Technical liaison shall be through the accomplishing activities' design division, which is responsible for basic waterfront support. Specific on-site functions required of the PY, when tasked by the SPM, include:
- Attend the WPIC or equivalent meeting.
- Attend the Pre-arrival Conference/ Arrival Meeting.
- Attend all major Progressing Conferences, i.e., 25%, 50%, 75% and delivery conferences.
- Being on call to provide on-site engineering expertise, within 24 hours of an NSA's request, on all pertinent installation and testing events associated with accomplishment of a SHIPALT, including proofing as required.
- Coordination and initial resolution of SHIPALT installations to insure that the integrity of the SHIPALT designs are not violated.
- Monitor LAR and reverse LAR activity.
- When tasked and funded by the SPM, assume the NSA responsibilities for updating ships configuration and logistics records with alterations accomplished information.

4-2.8.2 -NAVSEA 05/NSA Interaction

Normally, interaction between NAVSEA 05 and the NSA is via the SPM and PY through review

and approval of LAR requests, review of specified drawings for the complex SHIPALTs, and support of particular proofing and certification requirements.

4-2.8.3 SPM/NSA Interaction

The SPM acts as the primary point of contact with the NSA for tasking, guidance, and coordination. The SPM acts as entry point and final programmatic approval authority for all LARs, waivers, and deviations for their cognizance platforms.

SUBSECTION 4-3 INITIAL IDENTIFICATION AND INVESTIGATION OF PROPOSED SHIP IMPROVEMENTS

4-3.1 Scope of Subsection 4-3

This subsection details the beginning steps involved in the identification and investigation of proposed Ship improvements. It also details the process by which C&F studies are conducted by NAVSEA at the direction of the CNO, to provide additional technical/cost information on PMIs, PSIs and PTIs.

4-3.2 Initial Identification of Proposed Ship Improvements

A proposed improvement to ships and their equipment/systems may originate from sources inside and outside the Navy. Upon receipt, proposed improvements will be categorized and evaluated for possible inclusion in the FMP. There are three types of ship improvements: military, survivability, and technical. Machinery Alterations (MACHALTs), Field Changes (FCs) and Engineering Changes (ECs) are developed and programmed separately from SHIPALTs. ORDALTs that are conjunctive with a SHIPALT will be covered as part of the SHIPALT.

4-3.3 Types of Ship Improvements

4.3.3.1 Proposed Military Improvements (PMIs)

PMIs are forwarded to CNO for approval via the cognizant SPM, and are intended to increase the ability of the ship to perform its Required Operational Capabilities (ROC). PMIs can originate from a number of sponsors: industry, Navy Research and Development (R&D) Programs, project and program managers, hull or equipment sponsors, or the Fleet. PMIs describe the improved equipment/system/capability to be installed, its purpose, and its relationship to existing equipment systems. The PMI format is illustrated in Figure S4-4.

4.3.3.2 Proposed Survivability Improvements (PSIs)

A PSI is a document that describes a proposed improvement in passive fire protection, fire fighting, Electromagnetic Protection (EMP), Chemical/Biological/Radiological (CBR) warfare, shock protection, damage control and carrier Anti-Ship Capable Missile (ASCM) side protection. The CNO is the approving authority for PSIs. The PSI format is illustrated in Figure S4-5.

4.3.3.3 Proposed Technical Improvements (PTIs)

SPMs receive PTIs for approval, usually from Type Commanders TYCOMs and Engineering Activities. PTIs will improve the safety of personnel and equipment and/or provide increased reliability, maintainability, and efficiency of installed equipment. A PTI must contain enough information concerning cost, material requirements, equipment/system, ship class applicability, etc. to provide an adequate vehicle for evaluation. The JCF format should be used to provide the SPM with data needed for initial considerations of the improvement.

4-3.4 Cost and Feasibility (C&F) Initiation

Chief of Naval Operations (OPNAV) on occasion, may task the SPMs to conduct C&F studies on specific PMIs and/or PSIs. CNO (N43) will serialize the approved PMI/PSI for the purpose of control and identification, and request that they be advised of the estimated completion date or

its status thereof. The cognizant SPM will forward the document to NAVSEA 05/Ship's Design Manager as applicable. The document will include a statement requesting details of tasking and funding requirements, with an anticipated completion date after receipt of funds in the event that a contractual effort is required.

4-3.4.1 C&F Tasking

Where possible, C&F studies will be accomplished with NAVSEA PY resources. Where expertise is not sufficient to complete a C&F study, tasking will be issued, on a case-by-case basis, for contractual effort or to an appropriate activity charging an FMP line item established for that purpose.

4-3.4.2 C&F Funding

C&F studies will be funded on a case-by-case basis as they are tasked (see Section 6 for details).

4-3.5 C&F Execution

C&F studies will include a review of all pertinent information including the PMI/PSI and special design baseline studies. The study's primary function is to provide additional material requirements information, installation cost estimates, technical feasibility assessment including impact on existing systems, and cost/benefit trade-offs. This is done through, but not limited to, an investigation of the following elements:

a. Equipment to be removed and replaced.
b. Positioning or repositioning required for other equipment.
c. Changes in weight, weight distribution, or moment of the ship.
d. Changes to ship's power/cooling requirements.
e. Changes to ship's functional and operational capabilities.
f. Impact on existing SHIPALTs, MACHALTs and AERs.
g. Impact to Ship Interoperability capabilities.

The above classifications should lead to a formal definition of the proposed improvement's benefits and feasibility. Costs must be described in terms of installation man day and material cost estimates. The precision for the C&F study should be Class F, "ballpark" estimates (reference S4(l) provides details on estimate classification). Finally, the required materials listed in the PMI/PSI will be reviewed. The cognizant engineer should identify all known major/integral equipment not appearing in the PMI/PSI for annotation to the document. Where possible, standard stock numbers should be identified for material required. If additional data or material requirements are known, they should be entered into the PMI/PSI to reduce the variance between estimated and actual cost.

4-3.6 C&F External Interfaces

Because ship class configuration detail, including configuration variations within classes, is a PY area of expertise, the PY may be requested to provide engineering design support services. In support of the development effort, the PY may be tasked to prepare:

a. New technical data documentation.
b. Preliminary designs.
c. Preliminary tests.
d. Preliminary and special studies, including mockups.

Additionally, on an exception basis when the PY workload permits, the SPM may task accomplishment of the C&F study to the cognizant PY. The PY may not initiate development efforts until it is in receipt of funding documents.

4-3.7 C&F Review/Approval

Once the C&F Study is completed and the results reviewed by NAVSEA 05/53 or cognizant EA, the SPM(s) will forward the study results recommending its feasibility to CNO (N43) and to the appropriate OPNAV Sponsor.

FIGURE S4-4 SAMPLE PROPOSED MILITARY IMPROVEMENT (PMI)

1. TITLE:

2. ORIGINATOR:

3. ORIGINATOR'S ORGANIZATION/ADDRESS:

4. CNO SPONSOR:

5. PURPOSE: (include mission area, estimate of system effectiveness, and probable change to military characteristics of ships on which installed.)

6. PHYSICAL DESCRIPTION OF EQUIPMENT: (include power requirements, possible interference with existing equipment, known installation constraints, and possible duplication or near duplication of installed equipment.)

7. EQUIPMENT OR SYSTEM STATUS: (include procurement costs, development status, equipment availability, or contractor delivery capabilities.)

8. SUPPORT REQUIREMENTS: (include requirements for power, cooling, stowage of special test equipment and repair parts, etc.; also include reductions of existing support that might occur.)

9. ILS IMPLICATION: (include additional requirements for test equipment, Maintenance Requirement Cards (MRCs), technical manuals, spares, etc.)

10. MANPOWER PERSONNEL AND TRAINING IMPLICATIONS: (include requirements for additional manpower (rate, rating, NEC) to install, operate, maintain, repair, and overhaul equipment, as well as for associated training.)

11. HABITABILITY REQUIREMENTS: (include berthing, messing, sanitary, laundry, locker space, recreation/lounge, and climate control requirements incurred by additional manpower anticipated; also include reduction of existing habitability support that might occur.)

12 SHIP CLASSES TO WHICH APPLICABLE: (include estimate of FY of desired installation.)

13. SIGNATURE OF SPONSOR

FIGURE S4-5 SAMPLE PROPOSED SURVIVABILITY IMPROVEMENT (PSI)

1. TITLE:

2. ORIGINATOR:

3. ORIGINATOR'S ORGANIZATION/ADDRESS:

4. COGNIZANT SPM(s): COGNIZANT CNO SPONSOR:

5. PURPOSE: (include estimate of the proposed improvement's effectiveness and probable change to the survivability of personnel, equipment or systems of ships on which installed.)

6. PHYSICAL DESCRIPTION OF EQUIPMENT: (include procurement costs, development status, equipment availability or contractor delivery capabilities.)

7. EQUIPMENT OR SYSTEM STATUS: (include procurement costs, development status equipment availability, or contactor delivery capabilities.)

8. SUPPORT REQUIREMENTS: (include requirements for power, cooling, stowage of special test equipment and repair parts, etc.; also include reductions of existing support that might occur.)

9. ILS IMPLICATION: (include additional requirements for test equipment, Maintenance Requirement Cards (MRCs), technical manuals, spares, etc.)

10. MANPOWER, PERSONNEL AND TRAINING IMPLICATIONS: (include requirements for additional manpower (rate, rating, NEC) to install, operate, maintain, repair, and overhaul equipment, as well as for associated training.)

11. HABITABILITY REQUIREMENTS: (include berthing, messing, sanitary, laundry, locker space, recreation/lounge and climate control requirements incurred by additional manpower anticipated; also include reduction of existing habitability support that might occur.)

12. SHIP CLASSES TO WHICH APPLICABLE: (include estimate of FY of desired installation.)

13. SIGNATURE OF CNO SPONSOR:

SUBSECTION 4-4 JUSTIFICATION/COST FORM (JCF)

4-4.1 Scope of Subsection 4-4

This subsection details tasking, funding and preparation of the JCF. The JCF document is used by the cognizant SPM to arrive at a management decision of whether or not to proceed with development of the SHIPALT. The JCF identifies the top-level requirements, critical material requirements and the estimated costs for SHIPALT installation. All JCFs will be developed using the forms and procedures delineated in reference S4(m).

4-4.2 JCF Initiation

JCFs are typically initiated by the SPM or LCM/ PARM at the approval of a PMI, PSI and/or a PTI. JCFs may also be initiated for completed ships of a new construction ship program by the approval of an ECP for the ships under contract. As a condition of approval of the ECP, the applicability and necessity of back fitting the change into Fleet Operational ships of the class will be addressed. If the approved change is to be considered for back fitting, the ECP will be attached to the approved JCF form. JCF data requirements contained in the ECP need not be repeated in the JCF form.

4-4.2.1 JCF Tasking

For approved PMIs and PSIs, the CNO (N43) will direct the cognizant Systems Command (SYSCOM) to initiate SHIPALT development. The cognizant SYSCOM PARM/LCM will develop a JCF for all approved PMIs, PSIs and PTIs. Both the EA and the SPM shall approve and sign the JCF prior to the SPM tasking the development of a SAR.

4.4.3 JCF Development

JCFs may be prepared by the PARM, In-Service Engineering Agent (ISEA), LCM or PY as tasked by the SPM. The SPM provides supplies requisite documentation to prepare the JCF (e.g., the related PMI, PSI or PTI or a Cost and Feasibility (C&F) Study, if prepared). The SPM also assesses the priority of the JCF, identifying the relative priority of his tasks with the SDM. Completed JCFs are to be provided to the SPM for consideration and approval NLT A-16.

4.4.4 JCF Review/Approval

The SPM is responsible for formal review and approval of the JCF. Formal approval of the JCF is accomplished through a CCB or other SPM approval process. Approval signature is at the level of the SPM or its delegated authority. The SPM will forward all Title "D" and "F" SHIPALT JCFs to the (TYCOM for review and comment regarding likelihood of funding, essentiality and level of accomplishment.

4-4.4.1 Proposed Alteration Tracking Process

This process requires all SPM, SYSCOM and TYCOM proposed Title “D” and “F” SHIPALT JCFs and AER requests be entered in the Proposed Alteration (PA) Module of the NDE-NM system as soon as they are identified, so they may be visible to all parties involved in design, planning and execution decisions. SYSCOM proposed Title “K” SHIPALT JCFs may be entered if additional upfront planning notification is required before final JCF approval. Decisions and concurrence dates are recorded and conveyed within the database thereby providing a means of tracking authorizations. The NDE-NM system will automatically assign a

sequence number to all proposed alterations entered into the system. Appropriate parties will be notified via email that a request has been entered.

This PA process is not intended to bypass the normal process of submitting and/or approving JCFs and AER requests, but only to provide increased visibility of the changes that have been proposed and are in the approval process. The expected benefits include:

- Increased visibility of all, proposed and approved, Title "D" and "F" SHIPALTs and AER requests.
- Increased visibility of selected proposed Title "K" SHIPALTs.
- Improved communication, coordination and utilization of limited available resources.
- Improved accountability. With all alterations in a single database, design, planning and execution decisions can be made and action can be tasked within one system.
- The TYCOMs will be made aware of what Title "D" and "F" SHIPALTs and AER requests other originators are working.
- Synergy with the Top Management Attention/Top Management Initiative (TMA/TMI) process.

4-4.4.2 Proposed Alteration Responsibilities

The TYCOM will enter their proposed Title "D" and "F" SHIPALT JCFs and request for AERs into NDE-NM. At the same time, the data entry is made for the PA; the data can be programmed into the Proposed Program Alteration of Ship (ALT SHIP) table, which will contain the Fiscal Year (FY) during which the alteration is to be performed, if known. This will require that there be an existing Availability during which the Alteration will be executed.

The TYCOM remains responsible to submit separate JCFs and AER requests to the SPM for review and approval.

The SPMs and LCMs/PARMs will enter proposed title "K" SHIPALT JCFs into the NDE-NM when additional upfront planning notification is required before final JCF approval. At the same time, the data entry is made for the Proposed Alteration; the data can be programmed into the Proposed Program ALT SHIP table, which will contain the FY during which the alteration is to be performed, if known. This will require that there be an existing Availability during which the alteration will be executed. This table will be virtually the same as the ALT SHIP table. The proposed Alteration programming data will be reflected in the TP report available for review of proposed alterations.

The SPM will enter proposed Title "D" and "F" SHIPALT JCF and requests for AER into NDE-NM when proposed by other than the TYCOM. The SPM remains responsible to review, approve, or disapprove, all proposed alterations provided by the TYCOM or other activities.

When the SPM has approved the proposed Title "D", "F" OR "K"SHIPALT JCF or AER, the proposed alteration data will be automatically moved to the ALT table and the programming data will be automatically moved to the ALT SHIP table by the system.

SUBSECTION 4-5 SHIP ALTERATION RECORD (SAR)

4-5.1 Scope of Subsection 4-5 SAR

This subsection details the tasking, funding, and preparation of the SAR, which are required for all SHIPALTs installed under the FMP. The SAR is the official record document defining the approved changes to be made by the SHIPALT. The SAR builds upon the JCF, providing greater details, a more complete Alteration Material List (AML), if there are ILS products impacts and a list of equipment removals. Ship level ILS products impacted (i.e. SSRs) are identified in the SAR. The ILS Certification Form discussed in Section 8 of this manual identifies the actual equipment level ILS products impacted. The SAR shall be developed in accordance with reference S4(n).

4-5.2 SAR Initiation

Normally, the PY will develop or complete the SAR. In some cases, the NAVSEA 05, SPM or LCM/PARM will develop the draft SAR. In these cases, the draft SAR will be submitted to the SPM who will task PY to complete the SAR. Unless the OPNAV Platform Sponsor or the TYCOM has classified the alteration as an emergent requirement, the SPM will not task SAR development efforts until a JCF has been approved and released. Development of the SAR is not authorized unless the OPNAV Platform Sponsor/TYCOM has programmed or committed to program the alteration in FMPMIS for installation.

4-5.2.1 SAR Tasking

The cognizant SPM will task the cognizant PY NLT A-14 by letter/message/memorandum to prepare or complete development of the SAR. The tasking document includes the alteration brief, anticipated costs for development, and expected completion date. This will require those organizations, such as the LCM/PARMs, developing a draft SAR to submit them to the SPM NLT A-13. Equipment Interface Control Drawings (ICDs) are normally required for PY to complete a SAR - in this case, the PARM or SEA 05will deliver ICDs not later than A-14.

4-5.2.2 SAR Funding

For alterations for which the SPM receives Design Services Allocation (DSA) funds, the SPM has budget development and financial management responsibilities for SAR efforts. For alterations for which the PARM receives DSA funding, the SPM has responsibility for tasking SAR development regardless of who funds the SAR. Financial management is in accordance with Section 6 and reference S4(l).

4-5.3 SAR Execution

The ship class PY is normally tasked to prepare the SAR and any subsequent revisions. SPAWAR or the cognizant EA is responsible for supplying technical requirements, identifying SHIPALT documentation requiring SPM approval, specifying proofing requirements (see Subsection 4-8), and noting any requirements for in-process reviews.

The SAR will not identify incidental and consumable material normally procured by the NSA. Standard material items that are stocked on a recurring demand basis are identified in the SAR but need not be identified in FMPMIS. All Logistically Significant Material (LSM) should be reflected in the SAR (see Section 7). Material should be identified, to the fullest extent possible,

at the National Stock Number (NSN) level. The SAR will also define material that is to be removed and the associated disposition status, if known.

The SAR developer specifies if the SHIPALT impacts ILS products, and impacts on the ship's weight and moment characteristics. Those SARs initiated outside the PY will be forwarded to the cognizant PY for review, approval and completing the development of a cost estimate if required. The PY will return the finished SAR, and all revisions to previously approved SARs, to the cognizant tasking activity for further review and approval.

4-5.4 SAR External Interfaces

Once the development of a SAR is tasked, the cognizant SPM will monitor to assure sufficient progress towards completion and conformance to standard practices. The cognizant EA will provide additional technical assistance and guidance as required by the PY.

4-5.5 SAR Review/Approval

The cognizant PY, LCM/PARM, SDM, NAVSEA 05/53 or EA, SPM shall approve the prepared SAR. Subsequent to this approval, the SPM will obtain the required concurrences (e.g., NAVSEA 08 concurrence is mandatory for SHIPALTs affecting equipments, systems and spaces associated with nuclear power plants; and Director, Strategic Systems Program (SSP) for SHIPALTs affecting strategic weapons systems or spaces. The SPM or their designee will then conduct the final review of the SAR. Final approval of the SAR by the SPM is required before issuance of the SIDs. Final approval is required NLT A-11 to support a first time SHIPALT installation. A SAR not approved at A-11 or earlier could impact SID development, therefore, if the SAR has not been approved by A-11, consideration must be given to deferral of the first installation at that time. The SPM will update FMPMIS with the latest SHIPALT status and material requirements.

4-5.5.1 PY Approvals

When the PY has completed preparation of the SAR and has prepared a SHIPALT Cost Estimate Sheet, the PY Chief Design Engineer, or a designated representative, shall sign and date the SAR. The PY approval signature on the SAR indicates that the SAR has been reviewed for completeness, technical, logistics and material requirements adequacy and accuracy, impact on existing equipment and spaces, and consistency with other SHIPALTs, and based on the information available to the PY, the SAR is correct as written.

4-5.5.2 Naval Air Systems Command (NAVAIR)/Space and Naval Warfare Systems Command (SPAWAR)/PARM Approval

When the accomplishment of a SHIPALT affects the configuration of or installs or removes systems or equipments under the cognizance of NAVAIR, SPAWAR or another activity outside NAVSEA that activity shall review and approve the technical, material requirements and logistics data in the SAR prior to issue. The NAVAIR/SPAWAR/Other approval signature on the SAR indicates that the SAR has been reviewed for completeness, technical, material requirements and logistics adequacy and accuracy, impact on existing equipment and spaces and consistency with other SHIPALTs and, based on the information available to the reviewing activity, the SAR is correct as written.

4-5.5.3 NAVSEA Engineering Approval

The lead NAVSEA EA shall review the SAR prior to issue. The cognizant SDM or EA signature on the SAR indicates that the SAR has been reviewed for completeness, technical, material requirements and logistics adequacy and accuracy, impact on existing equipment and spaces and consistency with other SHIPALTs and, based on the information available to the EA, the SAR is correct as written. The cognizant EA approval signatures shall be at the division head level or higher.

In some cases where the engineering life cycle management responsibilities have been transferred from NAVSEA to another activity, the SPMs will assign technical approval authority to that activity.

4-5.5.4 TYCOM Review of Title "D" and "F" SHIPALTs

The TYCOMs will review Title "D" and "F" SHIPALTs in order to make an accurate assessment of the requirements necessary to install the alteration including technical feasibility, level of accomplishment, special material or capability requirements, and inclusion in special TYCOM program initiatives (i.e. Type Commander Kit (TYKIT), AIT) (see Section 12 of this manual).

4-5.5.5 SPM Approval

When all other approval signatures have been provided on the SAR, the cognizant SPM shall sign and date the SAR. The SPM approval signature on the SAR indicates that all required reviews have been conducted, all required approvals have been received, indicates concurrence with engineering design impact on existing equipment and spaces and consistency with other SHIPALTs, and ILS and, based on the information available to the SPM, the SAR is correct as written. The SPM can elect to delegate the approval of the SAR to the cognizant Planning Yard (in which case the Planning Yard signature will appear in this block).

SUBSECTION 4-6 SHIP ALTERATION (SHIPALT) COST ESTIMATING

4-6.1 Scope of Subsection 4-6

This subsection defines policies, procedures, and assigns responsibilities for the establishment and updating of man day estimates, man day cost estimates, and material cost estimates for SHIPALT installations. Funding problems caused by poor quality SHIPALT cost estimates can seriously impact execution of the FMP. These problems result from unsatisfactory estimates of man-days required to accomplish the alteration and the utilization of man-day rates that are not reflective of actual market areas.

4-6.2 Cost Estimating Policy

Man-day and material cost estimates shall be of the highest level of accuracy possible. The estimates are to be reviewed and updated as additional information becomes available. All estimates are to be annotated to identify the degree of uncertainty in accordance with reference S4(o). An official set of man-day rates for both public and private yards are to be established and maintained current. Only the established rates are to be used for determining SHIPALT installation man-day cost estimates.

4-6.3 Cost Estimating Responsibilities

4-6.3.1 Ship Program Manager (SPM)

The SPM is the sole authority and is responsible for the following:

- Quality and timeliness of SHIPALT installation man day estimates and material cost estimates. The SPM shall establish or confirm the initial estimates at time of approval of the JCF and shall include these estimates with the JCF.
- Entering and updating SHIPALT estimates in the FMPMIS.

4-6.3.2 Planning Yards (PYs)

The PYs are responsible for providing formal estimates at the time the SAR is submitted for approval and again when the SIDs are completed. The estimates are to be provided to the cognizant SPM utilizing a standard estimating record sheet. The SPM shall retain the estimating record sheets as part of the official SHIPALT file.

4-6.3.3 Naval Sea Systems Command (NAVSEA) Comptroller Directorate (NAVSEA 01) and Logistics, Maintenance & Industrial Operations Directorate (NAVSEA 04)

NAVSEA 04 develops man-day rates for Private and Public sector yards. Based on these individual rates, NAVSEA 04 develops the weighted average port and east/west coast weighted rates, as applicable, applies escalation factors to develop the out-year rates, and issues the final approved rates to the Fleet, NAVSEA 013, and other FMP customers for budget development. With NAVSEA 013 concurrence, man-day rates are entered into the FMPMIS Program Module by NAVSEA 04.

4-6.4 Cost Estimating

Estimates are usually developed by the planning yard. The SPM must enter an estimate in FMPMIS based on development information after the completion of each of following stages in the SHIPALT development:

- JCF
- SAR
- SID
- Return costs after the accomplishment of the SHIPALT

The man-day estimate to be entered into FMPMIS includes those listed in reference S4(n) with overview to identify basic process explanation.

4-6.5 Factors to be Considered in SHIPALT Cost Estimating

4-6.5.1 First Time Accomplishment of a SHIPALT

Determine if any of the following exist:

a. C&F study installation man-day estimate
b. JCF installation man day estimate
c. Incidental Material costs
d. SAR installation man day estimate prepared by an activity other than the PY
e. PY installation cost/man-day estimate
f. Return costs for the accomplishment of a similar SHIPALT on another class of ships

4-6.5.2 Other Than First Time Accomplishment of a SHIPALT

a. If a recent return cost exists for the SHIPALT, apply common sense evaluation (Does the estimate appear reasonable for this application?).
b. If a recent return cost does not exist for the SHIPALT in question or a similar SHIPALT, or the return cost does not appear valid for this application (unique situation for current or previous ship, design refinements since previous accomplishment, etc.), obtain cost/man day estimate from the PY.

4-6.5.3 Other Factors to be Considered

a. Is the SHIPALT planned to be accomplished in the public or private sector on the ship under consideration?
b. If the SHIPALT is planned to be accomplished in the private sector on the ship under consideration, is the availability likely to be cost-plus or fixed-price?
c. Region of the country where availability is planned?
d. Is the SHIPALT a complex alteration or require the use of new or high technology skills or does it require equipment not normally used by most shipyards?
e. Does the SHIPALT require the concurrent or prior accomplishment of other SHIPALT ?
f. Does accomplishment of the SHIPALT require major rearrangement of existing spaces?
g. Does accomplishment of the SHIPALT have significant impact on ship's services, i.e. power, lighting, Heating, Ventilation and Air Conditioning (HVAC), electronic equipment cooling water, habitability, etc.?
h. Does accomplishment of the SHIPALT require weight and moment compensation not provided by the accomplishment of conjunctive SHIPALT?
i. Does accomplishment of the SHIPALT require the use of shelters or other special environmental protection measures?
j. Does accomplishment of the SHIPALT require the use or disposal of hazardous waste?
k. Does accomplishment of the SHIPALT require special hull access cuts to remove/install

the SHIPALT material?

l. Does accomplishment of the SHIPALT require dry-docking of the ship?

m. Does accomplishment of the SHIPALT require gas freeing of one or more spaces?

SUBSECTION 4-7 SHIP ALTERATION (SHIPALT) INSTALLATION DRAWINGS (SIDS)

4-7.1 Scope of Subsection 4-7

This subsection details the tasking, funding and preparation of SIDs which are utilized by a shipyard or other activity, including Ship's Force, for the accomplishment of all non-nuclear SHIPALT work.

4-7.2 Background for Subsection 4-7: SID

SIDs will be prepared for all Title "K", "K-P," "D," and "F" SHIPALTs in accordance with reference S4(p). These drawings shall include, as required, system drawings, structural drawings, arrangement drawings, manufacturing drawings, ripout drawings, assembly and detail drawings, temporary access/egress drawings, diagrams, and cabling sheets. The drawings shall not rely on references to other drawings or other data sources to provide information, which the installation drawings should provide. NAVSEA hull, mechanical, electrical, and electronic Standard or Type Drawings may be referenced to eliminate redundancy and promote standardization.

4-7.2.1 Class-Applicable SIDs

Class-applicable SIDs are single sets of SIDs, which are prepared to accomplish a SHIPALT on an entire class or sub-class of ships. SHIPALTs which are candidates for utilization of class-applicable SIDs shall be selected based on the following criteria:

- At least the initial set of SID for the candidate SHIPALT shall be prepared based on a shipcheck of an applicable ship.
- Sub-class distinctions within the applicable class of ships are reflected in different sets of SIDs.
- Potential hull variations with the applicable class of ships are minimal in the area of the ship to be impacted by the accomplishment of the SHIPALT (i.e., no compartmentation changes).
- Requirements for accomplishment of concurrent SHIPALTs, field changes, MACHALTs, etc., are minimal.

4-7.3 Initiation of SID

Development of SIDs is not authorized before an alteration has been programmed for installation on a specific hull in a particular year. Normally, the SPM initiates SID development by tasking and funding the cognizant PY to develop the drawings and associated engineering data package. SID development is normally funded with DSA funds. For alterations in which the LCM/PARM receives the DSA funds, the LCM/PARM shall fund SID development. For some AIT-installed alterations, SIDs are developed by EAs other than the PY - in such cases the PY shall approve the SIDs, and DSA funding shall be provided to PY to support the SID review and approval by whomever receives the DSA funding. The SPM shall task SID development and all required funding for SID development shall be in place not later than A-12.

4-7.3.1 Tasking/Funding Letter for SID

The Advance Planning Letter and Authorization Letter will include a list of all programmed SHIPALTs and identify those for which drawings are to be prepared. Each SHIPALT will have a separate and complete drawing package. With formal approval from the cognizant SDM and SPM, the drawings may integrate multiple SHIPALTs for efficiency and clarity. The tasking

letter will enclose or refer to relevant source documents. Possible sources are the JCF, the SAR, relevant SSRs and, upon request, data from NAVSEA 05.

Provided the extent of work for each SHIPALT is included in the drawing, the drawing package shall provide an integrated design of all SHIPALTs authorized for a specific availability and, as a result, may include work authorized by two or more SHIPALTs on the same drawing. This is particularly true of drawings such as system modification drawings, structural and foundation drawings, arrangement drawings, ripout drawings, and temporary access/egress drawings. The cognizant SPM will be immediately notified if adequate guidance is not available.

4-7.4 Execution of SID

Upon receipt of the SID tasking letter, the PY will confirm by letter/message, to the SPM, the ability to complete the design within the specified time frame and within the initial PY DSA requirement estimate. If the PY cannot meet the required completion date or the planning estimate, they must justify why completion is not possible or offer a revised cost estimate. If late tasking jeopardizes the ability to satisfactorily prepare the drawings for a SHIPALT or adversely impacts the ability to accomplish existing higher priority tasks, the PY will advise the SPM, TYCOM and the assigned NSA.

4-7.4.1 Shipchecks for SID

There are several types of shipchecks associated with the development and maintenance of SIDs. They include:

- The design information on SIDs is developed based on a shipcheck of the actual configuration of the ship.
- The design information presented on prepared SIDs may be verified by shipcheck.
- The total scope of work presented on SIDs (SHIPALT work) may be ship-checked together with anticipated repair work for possible impact.
- If SHIPALT proofing is required, (see Subsection 4-8) the SIDs are checked against the accomplished SHIPALT work to verify that the SIDs reflect the work actually accomplished.

4-7.4.1.1 Design Shipchecks

The PY conducts design ship checks before the development of SIDs to determine the actual configuration of the applicable ship. The engineering information presented on SIDs is based on this shipcheck. This shipcheck is generally conducted around A-18, or for AIT installed interoperability alterations, D-27 to D-24 (A-11 to A-8), depending on the availability of the ship, in order to provide sufficient time for the PY to develop the engineering design and produce the SIDs. To support development of specifications and contractual requirements, SID issue date shall be NLT A-6, or for AIT-installed interoperability alterations, (A-4).

4.7.4.1.2 Verification Shipchecks

The PY conducts verification ship checks for high risk or complex SHIPALTs in order to verify that the design information presented on the SIDs reflects the actual conditions on the applicable ship. This shipcheck is generally conducted after preparation of the SIDs but before the required issue date of A-6, or for AIT-installed interoperability alterations, D-20 (A-4).

4-7.4.1.3 Production Shipchecks

The NSA may conduct production shipchecks for non-competed availabilities to determine the extent of required repair work as well as the total scope of work indicated in the SIDs. For public/private competed availabilities, the bidder who receives Request for Bids can conduct shipchecks. The information gained from these ship-checks are used for workload integration, for manpower planning, and for the development of production job orders. This shipcheck, when required, is generally conducted after delivery of the SIDs and after the TYCOM's WPIC (or equivalent meeting).

4-7.4.1.4 Proofing Shipchecks

When proofing of a SHIPALT is required by a SAR (see Subsection 4-8) and tasked in the SHIPALT Authorization Letter, the PY performs special testing as part of the first accomplishment of the SHIPALT to verify that the intent of the SHIPALT has been met. Part of proofing includes verifying that the applicable SIDs accurately represent the work required to successfully accomplish the SHIPALT. The SIDs are ship-checked against the final ship configuration after accomplishment of the SHIPALT. Based on the information gained from this shipcheck, the PY updates the SIDs to reflect the actual "as-installed" configuration on the ship.

4-7.4.2 Drawing Development

Drawings are to be user-oriented by providing sufficient detail for manufacturing, assembling, testing, and installing. In addition, drawings will contain engineering support data to ensure design adequacy and to provide an engineering baseline for subsequent users.

Each SHIPALT drawing shall be assigned a unique NAVSEA drawing number. When the SHIPALT design affects the configuration of, or data on, other systems, compartments, equipment, etc., sufficient drawing modifications or system drawings shall be prepared to reflect these impacts. All revised or modified drawings must be clearly identified as such. Drawings will contain a general notes list; parts/materials/equipment lists; an engineering data package; weight, volume, and moment data; and required signatures. (see reference S4(p)).

Completion and approval of SIDs is to be accomplished NLT A-6, or for AIT-installed interoperability alterations, D-20 (A-4). This deadline must be strictly adhered to. No SID will be issued without an approved SAR. The PY should use all means available to remain on schedule. Should the PY project that the A-6 or the D-20 (A-4) for AIT installed interoperability alterations deadline cannot be met, the SPM, TYCOM (for Title "D" and "F" SHIPALTs only) and the NSA must be informed immediately with justification for the delay and any recommended resolutions.

4-7.4.3 External Interfaces for SIDs

Upon request, NAVSEA 05/53 or the EA will provide technical guidance. Liaison with the scheduled NSA regarding design work progress on SHIPALTs is encouraged. The NSA should be included as information addressee on all PY correspondence relating to design work.

4-7.4.4 Review/Approval of SIDs

SIDs which require review and approval by the SPM are specified in individual SARs. Copies of these SIDs are to be submitted to the cognizant SPM for review and approval prior to the

required SID issue date of A-6 or for AIT-installed interoperability alterations, D-20 (A-4) as directed by the SPM. The SPM coordinates the technical review of the SIDs with NAVSEA 05 and, if required, other activities such as, NAVAIR or SPAWAR. When all technical review comments are resolved, the SPM will issue a letter or message approving the SIDs and the PY will indicate the approval document in the approval block on the applicable SIDs and then issue the SIDs NLT A-6 or for AIT-installed interoperability alterations, D-20 (A-4).

Section 4-7.4.4.1 Resubmission of SIDs

When SIDs are disapproved, they shall be corrected and resubmitted by the PY to the SPM for approval and issuance of the SID approval letter to the SPM.

4-7.4.4.2 Revision of NAVSEA Approved SIDs

When revisions are made to SIDs which have been previously approved by SPMs, the SIDs do not require further NAVSEA review or approval unless the revisions result in a change of the technical design details indicated on the SID (revisions which add ship applicability, correct reference listings or stock numbers, or clarify details on the SID which do not change the technical design do not require further NAVSEA review or approvals). Revisions to SIDs which are made as a result of NAVSEA responses to (LARs) do not require further NAVSEA review or approval unless otherwise required by the cognizant SPM. Completion of revised SIDs (as built drawings) shall be accomplished NLT EOA+3.

4-7.5 Drawing Schedules

For each scheduled availability the PY will maintain a complete schedule of all SIDs and associated support drawings which are required by the NSA to accomplish the scheduled SHIPALTs. The drawing schedule shall contain the following information as a minimum (the form and format are left to the discretion of the PY):

a. Issue date of drawing schedule.
b. Issuing activity.
c. Applicable ship.
d. Scheduled ship availability dates.
e. All applicable SHIPALTs.
f. All required drawings listed by drawing number.
g. Applicable revision of each drawing listed (see note below). *
h. Title of each drawing listed.
i. Estimated date of delivery to NSA.
j. Actual date of delivery/shipment to NSA.

Note: An asterisk (*) or similar notation on the drawing schedule shall identify all adds, deletes and changes made since previous drawing schedule was issued.

* When a drawing is issued and later revised, the drawing revision shall be listed on the drawing schedule as a separate entry and the original entry shall not be removed from the schedule.

A preliminary drawing schedule shall be issued to the NSA at A-12 and the final schedule is to be issued NLT A-6 with the formal issue of the SIDs. The drawing schedule is to be updated and issued to the NSA at least monthly after A-12 or for AIT installed alterations, D-20 (A-4) until

all drawings and revisions are completed and issued.

4-7.6 SID Material Support Requirements

Once the SIDs have been developed, drawing material requirements must be reviewed to ensure that proper material and material quantities are identified to the various supply activities.

4-7.6.1 SAR Material Listing

The PY shall review the SARs against the applicable SIDs to verify consistency of material specified in the SAR AML and the SID Lists of Material (LOMs). The SPM or the designee shall be notified if the SID LOMs modify previously identified material on the SAR AML. The SPM shall then update NDE-NM Logistics Application to identify the actual material requirements for the accomplishment of the applicable SHIPALT on the specific ship and change the Alteration Bill of Material Source Code (IBOM) indicator, if necessary.

4-7.6.2 Material Procurement Specifications

As directed by the SPM, procurement specifications shall be prepared by the PY for all SID required non-standard material (material which cannot be ordered by NSN, which is not being provided by a HSC (NAVSEA, NAVAIR, SPAWAR, etc.) as part of the SHIPALT. The specifications shall be as self contained as possible and tailored to reflect only those requirements necessary for the designated ship. The specifications shall be provided to the NSA at the same time the SIDS are issued.

SUBSECTION 4-8 PROOFING OF SHIP ALTERATIONS (SHIPALTs)

4-8.1 Scope of Subsection 4-8

This subsection of the addresses the process referred to as "Proofing". It is performed as a part of the accomplishment of the SHIPALT(s) on the first ship scheduled to receive the SHIPALT or combination of SHIPALTs.

4-8.2 Background for Subsection 4-8

In the accomplishment of high visibility, major, or complex SHIPALTs or the integration of several major or complex SHIPALTs, which are accomplished during the same availability, it may be desirable to assure that the accomplishment of the SHIPALT or combination of SHIPALTs achieves the desired results. When required the decision to conduct proofing is made during the SHIPALT development process and is a specifically funded event which is noted in the applicable Advance Planning and Authorization Letters issued by the SPM for the first ship scheduled to receive the SHIPALT(s). Only those SHIPALTs which indicate "PROOFING REQUIRED" in the respective SAR shall be proofed.

4-8.3 Proofing Process

Proofing of a SHIPALT or a combination of SHIPALTs is normally conducted by the cognizant PY or, in some cases, by another activity with the participation of the PY. The applicable SAR(s) provides basic information on specifically what functions are to be proofed, the rationale for proofing, and the activity responsible to conduct of the proofing (normally the PY).

4-8.3.1 Planning Requirements for Proofing

As soon as the PY receives an Advance Planning Letter from the SPM which indicates that proofing of one or more SHIPALTs is required as part of the availability, the PY should begin planning for the proofing event, usually conducted near the end of an availability. The planning includes making a determination of the technical characteristics which are to be demonstrated (from the applicable SAR(s) and contacts with the HSC Technical Point(s) of Contact indicated on the SAR(s)) and then determining what methods are to be used to demonstrate the specific characteristics (generally, special testing is developed which demonstrates the specific characteristics). If a SAR indicates that the proofing is to be conducted by an activity other than the PY (generally a system or equipment ISEA), the PY will establish points of contact with the designated activity and provide assistance as required to insure that the required technical characteristics will be adequately demonstrated by the proofing.

4-8.3.2 Proofing Documentation

The activity designated to perform the proofing will develop all documentation (generally special tests or operational demonstrations necessary to demonstrate the characteristics which are required to be proofed in accordance with the applicable SAR(s)). NAVSEA 05 shall approve the methods selected for proofing before the actual development of documentation. The final proofing procedure shall be reviewed, and may be required to be approved by, the cognizant NAVSEA 05 prior to performance of proofing. In cases where the at-sea participation of the ship is required, the approval of the Commanding Officer of the applicable ship and the applicable TYCOM is required.

4-8.3.3 Performance of Proofing

The performance of proofing requires coordination between the activity responsible for the proofing, the NSA overseeing the assigned ship availability, and the cognizant LCM/PARM. The NSA is responsible for the scheduling and integration of all testing to be performed in support of a given availability and shall schedule all tests or demonstrations in support of SHIPALT proofing. In some cases proofing may be conducted during sea trials or after the EOA. For example, weapons systems demonstrations (target tracking, gunnery and missile demonstrations, etc.), have special support or operational requirements for proofing (e.g., airborne or submerged targets, live fire testing, use of gunnery or missile ranges, support ships or aircraft). In these cases, coordination with the applicable TYCOM and support activities will also be required prior to the proofing.

The proofing is generally witnessed by representatives of the SPM, PY, LCM/PARM, ship's force, and other activities as required.

4-8.3.4 Proofing Report

The activity responsible for the proofing shall prepare a Proofing Report which describes the results of the proofing, overall technical evaluation of the SHIPALT, and recommended changes/corrections to the SARs, SIDs, or other SHIPALT documentation which would improve the performance or accomplishment of the SHIPALT(s). The report shall be submitted to the cognizant SPM.

4-8.4 Proofing Follow-up

After successful proofing, the PY shall shipcheck the applicable ship and verify that the applicable SIDs accurately reflect the "as-installed" configuration of the SHIPALT. The applicable SID master files are then revised to reflect the actual ship configuration. The SIDs which may have been prepared for follow-on ships of the class receiving or scheduled to receive the proofed SHIPALT(s) are reviewed against these corrected drawings for possible corrections/revisions to insure successful accomplishment of the SHIPALT(s) in follow-on ships.

SUBSECTION 4-9 LIAISON ACTION RECORD (LAR)

4-9.1 Scope of Subsection 4-9

This subsection of the addresses the preparation of the LAR which is the formal documentation tool for technical communications among PYs, NSAs/Installing Activities (IAs), and the SPMs in the installation of SHIPALTs. LARs shall be used to facilitate the resolution of design questions and change requests regarding drawings, changes to technical documentation and tasking assignments, and the transmittal of waivers and deviations and shall be the only vehicle used by NAVSEA for the transmittal of technical requirement changes to PYs after approval of a SAR. LARs are not to be used to authorize work or deal with programmatic changes. Reference S4(q) states "cost and impact information should not be included in the LAR, but should be provided in supplementary documentation".

4-9.2 Initiation of LARs

At A-15, the NSA shall establish points of contact with the applicable PY. In situations where the availability is being offered to the private sector, the Planning SUPSHIP shall establish initial contact. The NSA will establish contact with the PY as soon as the industrial activity is selected. Each activity will designate individuals as points of contact and supply the names, codes, telephone numbers, and functional areas of these individuals. Each activity will also maintain a log of all LARs and LAR responses applicable to a specific availability.

4-9.3 Execution of LAR

4-9.3.1 NSA Generated LARs

An NSA may generate LARs to:

a. Request clarification of information provided on SARs, SIDs, test requirements, specifications, etc., provided by the PY.

b. Request modifications to design information provided by the PY.

c. Request on-site engineering support.

d. Request deviations and waivers from installation design requirements (see Subparagraph 4-9.3.4).

4-9.3.2 PY Generated LARs

A PY may generate LARs to:

a. Request SPM clarification of information provided on SARs, SHIPALT guidance drawings, test requirements, specifications, etc., after a SAR is issued.

b. Request on-site engineering support from the SPM.

c. Request modifications to or reassignment of SPM tasking related to SHIPALT design or accomplishment.

d. Request deviations and waivers from SHIPALT design requirements imposed by the SPM (see Subparagraph 4-9.3.4).

e. Provide advance notification to the NSA of urgent and mandatory or new requirements which may impact on-going production work.

4-9.3.3 Ship Program Manager (SPM) Generated LARs

A SPM may issue a LAR to forward SHIPALT requirements changes to a PY after the

applicable SAR(s) has been approved and issued.

The LAR shall be developed and processed in accordance with reference S4(q). The initial request may be made by telephone, message or fax when urgency demands, but must subsequently be followed up with a written serialized LAR.

4-9.3.4 Deviation and Waiver LARs

A LAR may be utilized to forward a request for major and minor critical departures from specified requirements per reference S4(r). For nuclear-powered vessels, all minor departures on propulsion plant systems or support systems shall be in accordance with reference S4(s). Deviations from non-reactor plant, non-deviation submarine drawings must be submitted on Form DD 1694 Request for Deviation/Waiver as an attachment to the LAR. The completed Form DD 1694 shall be sent directly to the cognizant SPM by the activity requesting the departure (i.e., PY or NSA). If a request is developed by a NSA, a copy of the request shall also be forwarded to the applicable PY for information.

Excepting minor departures covered by reference S4(s) and deviations from non-reactor plant, non-deviation submarine drawings, minor departures (per reference S4(r)) may be approved at the local NSA level. The NSA will forward copies of all locally approved departures to the applicable PY at end of availability plus two months (EOA+2). A LAR shall be used as the forwarding document for these departures.

4-9.4 Review/Approval of LARs

NSA generated LARs that do not involve waivers and deviations will be routed to the PY or on-site representative for action. Unresolvable LARs and those initiated by the PY will be forwarded to the cognizant EA via the appropriate SPM. The EA will respond via the SPM with a copy to the NSA and the PY. Replies to LARs should normally occur within ten (10) working days from time of receipt for routine requests, and five working days for urgent requests. The action addressee will notify the originating activity of the date of response, particularly when a response will require more than fourteen days or will exceed the requested response date. The response to a LAR will be communicated by letter/message to the originating activity. LARs generated by the SPAWAR, LCMs, equipment managers, etc., to reflect requirements changes, will be forwarded via the cognizant SPM for approval.

SUBSECTION 4-10 EMERGENT REQUIREMENTS

4-10.1 Scope of Subsection 4-10

This subsection of the addresses modernization requirements which are identified out of phase with the normal programming and budgeting cycle. Such Title "K" SHIPALTs are programmed, funded and installed during the execution year. These emergent requirements may be candidates for accomplishment by AIT. Emergent requirements are those alterations which require an immediate reprioritization of tasking and reallocation of resources to support accelerated development and installation. Such unplanned reprioritization is inefficient in alteration development and should be reserved for unusually compelling needs and not as a normal process for AIT-installed alterations.

4-10.2 Background for Subsection 4-10

The responsibilities and procedures contained in this manual have been designed to provide orderly and systematic accomplishment of necessary design and documentation functions in support of the FMP. These procedures, however, may not be sufficiently responsive to the FMP where, because of military or technical necessity for emergent SHIPALT accomplishment, deviation from specified procedures and responsibilities is required.

4-10.3 Initiation of Emergent Requirements

Once the OPNAV Platform Sponsor has classified a Title "K" SHIPALT as an emergent requirement, the SPM will issue a serialized escrow change and add the requirement to the execution document.

4-10.4 Execution of Emergent Requirements

The SPM will indicate the SHIPALT's high priority to all SHIPALT development and design activities. The SDM and the SPM will review the SHIPALT development status and reprioritize schedules to best facilitate the development of the emergent SHIPALT within the specified time period. This may include delaying the development of lower priority JCFs, providing extra manpower or material resources, and closely monitoring the status of all related products within the design phase.

The SPM will be informed of any problems in meeting completion dates by development activities or the cognizant EA. The SPM will approve, through the LAR system, procedural changes and deviations it deems necessary to ensure the satisfactory completion of the emergent requirement. Should the SPM determine that sufficient resources or materials will not be available, they will advise the OPNAV Platform Sponsor and revise or cease the SHIPALT development process for the emergent requirement.

The NSA will take all possible actions to accomplish the tasking within the completion date specified by the SPM. It is mandatory that the PY be prepared to support the NSA with added design support. In addition, the SPM will define SHIPALT execution steps that need not be fulfilled. The appropriate PY or NSA will immediately notify the SPM when delays, interruptions, or lack of required guidance are evident.

The SPM will ensure that appropriate actions are taken, in accordance with Section 8 of this manual, to provide logistics support for emergent requirements. SHIPALTs will not be installed

without logistics support. Interim support will be provided in those cases when lead times preclude full Navy support. This will be in accordance with reference S4(t).

4-10.5 Alteration Installation Team (AIT) Efforts on Emergent Requirements

The assigned PY is responsible for the installation design of ship and ship system modifications and shall normally be tasked to develop installation design. On the occasions where, due to urgency, an AIT is tasked to develop installation design for a SHIPALT, the SHIPALT installation design must be submitted to the PY for review and approval prior to SHIPALT accomplishment. The PY will review the drawings for technical adequacy and accuracy and provide approval. The installation drawings developed for AIT installations are to be in accordance with references S4(u) and S4(v). Upon OPNAV approval for AIT installation of a Title "K" SHIPALT, the applicable SPM will coordinate with the TYCOM or OPNAV to create an availability, if required, in FMPMIS. The SPM will program the SHIPALT into the availability and process the necessary escrow changes.

SUBSECTION 4-11 SHIP SELECTED RECORDS (SSRs)

4-11.1 Scope

This section addresses the tasking and preparation of SSR Drawings and Data. SSRs are specifically designated by the CNO and are maintained throughout the life of the ship. SSR items and update procedures are detailed in reference S4(w).

4-11.2 Background for Subsection 4-11

SSRs are documentation of design or characteristics of HM&E systems, and related information by hull. They are selected because of their value for operational, maintenance, modernization, training, and consulting purposes to individual ship's forces, fleet commands, shipyard personnel, training centers, and other naval activities.

SSR Drawings and Data are updated by the PY for non-nuclear powered ships and by the PY and NSA for submarines and nuclear powered ships, as tasked by the SPM. The update is to be done during the scheduled availability's year and is to be funded NLT A-12 from the DSA execution year funds except that follow year funds may be used for availabilities extending into the next fiscal year. Use of prior year funds will be considered on a case basis for short duration availabilities beginning early in the fiscal year. The update will be reflected in two products. These products are the interim "printers proof copies" delivered to the ship prior to the end of the ship's availability (or Fast Cruise, if applicable) and the final copies provided to the ship by EOA+3, except Training Aid Booklets (TABs) which should be delivered by EOA+6. During periods of budget constraints, the delivery schedule for SSRs may be modified by the SPM. The PY or NSA, as applicable, will verify the update of the SSR Drawings and Data with the interim SSR package. The NSA will verify the delivery status of the Selected Record Drawings (SRDs) and Data at the designated milestones for all ships.

4-11.3 Initiation of SSRs

Except as noted in reference S4(w), the PY has life cycle responsibility for SSRs for those ships assigned to it. The PY maintains custody of the SSR Masters (vault copies) and maintains the SSRs configuration on a continuing basis. Naval Surface Warfare Center, Carderock Division-Ship Systems Engineering Station (NSWCCD-SSES), Standard General Markup Language (SGML) Repository is the custodial location of Electronic Master Copies used by the PYs to support the individual ships.)

4-11.3.1 Tasking for SSRs for SHIPALTs Installed During Scheduled Availabilities

Tasking for SSR maintenance and update incident to an industrial availability is accomplished through the SHIPALT Authorization Letter. The Technical Instruction (TI) is used for private PYs. The PY may, in turn, task SSR work to Technical Manual Maintenance Activities (TMMAs) or ISEAs as necessary but retains the responsibility for accuracy of the final product. The task will require that the work be done during the availability.

4-11.3.2 Tasking for SSRs for SHIPALTs Installed Outside Scheduled Availabilities

If a significant SSR update is required as the result of an availability not covered by a SHIPALT Authorization Letter, the NSA must inform the cognizant SPM and PY of the circumstances, including the scope of work and an estimate of funds required for accomplishment. All SSR

operations not incident to a scheduled industrial availability are separately funded by SHIPALT sponsor as directed by the SPM.

4-11.4 Execution of SSRs

The PY insures the incorporation of all required changes and/or modifications to SSR Drawings and Data. Changes from any source may impact PY maintained documents and necessitate revision. Sources of changes are:

- Maintenance activities performing industrial availabilities.
- SHIPALTs accomplished by forces afloat or AIT for assigned ships.
- RPPY's modifications to reactor plant and associated systems for nuclear-powered ships.

4-11.4.1 SSR Changes Between Availabilities

Changes affecting SSR that are accomplished between industrial availabilities are received through changes recorded on a marked-up "Ship's Master Copy" of the drawing or data. The PY must assess the "Ship's Master Copy" technical quality, notify the cognizant SPM of any unsatisfactory mark-ups received, and recommend remedial action and any associated cost estimate to correct. Excessively modified drawings are to be redrawn and assigned a revision number. An updated "Ship's Master Copy" will be returned to the ship 60 days after receipt, or at a mutually agreeable date.

4-11.4.2 Non-Nuclear Powered Ship Availabilities

For industrial availabilities of non-nuclear powered ships, the PY is responsible for providing a ship's SSR update to reflect all known configuration changes previously accomplished and the SHIPALTs authorized for accomplishment during the availability. The PY includes any changes indicated in the marked-up Ship's Master Copies, which are furnished to the PY representative by the Ship’s Force at the SOA. The PY provides interim SSR Drawings and Data to the ship at EOA-1, or by Fast Cruise, if applicable.

4-11.4.3 Submarine and Nuclear Powered Ship Availabilities

For industrial availabilities of submarines and nuclear powered ships, the PY is responsible for providing to the cognizant NSA two copies of the ship's SSR update reflecting all known configuration changes previously accomplished and the SHIPALTs authorized for accomplishment during the availability. The cognizant NSA forwards a request for SSR NLT A-4 and the PY provides them prior to SOA.

4-11.4.4 SSR Update/Changes

The PY will identify the SHIPALTS being installed during the availability along with the impacted SSRs. Document change activity will be captured in the revision block or via the change page listing of the impacted documents. The PY is responsible for incorporating all changes resulting from the availability in the SSR. The NSA will assist the PY on updates involving nuclear ships and submarines. In this case, the PY will provide the SSR drawings to include the planned SHIPALT installation. For nuclear ships, the NSA will mark-up any in-process deviations (additions, deletions) from the planned SHIPALT profile and furnish Interim SSR to the ship and a mark up to the PY for final SSR printing and distribution.

Drawings affected by SHIPALTs or other authorized configuration changes will be reprinted for the ship's availability. Selected Record Data will be reprinted at major availabilities (overhauls, drydockings) and changed by printed insert pages or sheets for non-drydocking industrial availabilities (Selected Restricted Availability (SRA), PMA, Phased Maintenance Firm Fixed Price (PMF), etc.). Additional guidance on reprinting drawings and data is found in reference S4(w).

4-11.4.5 Expanded SSR Drawing Baselines

The number of SRDs required for each ship varies with the ship class (see reference S4(w)). The required size of the drawing baseline has been increased for most ships. The PYs will produce the additional drawings on a ship-by-ship basis as tasked by the SPM. The PY will assume the full maintenance responsibility, storage, update, validation, certification, and distribution for each ship's total SRD suite.

As tasked by the SPM, the PY either forwards SSR Drawings and Data to the local Defense Automated Printing Service (DAPS) for printing or reproduces the documentation in house and ensures the distribution of final printed copies by EOA+3. During periods of budget constraints, the delivery schedule for SSRs may be modified by the SPM. For computerized Damage Control Plates, the PY ensures distribution of final printed copies within 45 days following EOA.

Forty-five days after EOA, the PY provides the ship with a delivery status report/letter indicating, for each SSR item, the anticipated delivery date and the transmittal identification of any item being forwarded. All deliveries of corrected copies must be completed NLT EOA+3, or notification of delay is required, in writing, to the cognizant SPM identifying the document and cause of delay. During periods of budget constraints, the delivery schedule for SSRs may be modified by the SPM. SSN 688, DD 963, FFG 7, CG 47 and DDG 51 Class SSR are maintained on a continual basis by the PY. The PY has the primary responsibility to maintain and update SSR. However, it is essential for the industrial activity to establish close liaison with the PY before, during, and after all availabilities to ensure that accurate and timely exchange of information takes place to facilitate periodic update of all SSR.

4-11.5 Verification of SSR

The PY, for non-nuclear powered ships, will verify to the ship that SSR affected during the availability have been updated and reflect the current ship configuration. This verification of accuracy and currency is made in writing by the PY with the preprinted SSR update package delivered to the ship at EOA-1 or by Fast Cruise, if applicable.

For submarines and nuclear powered surface ships, the NSA is required to verify to the ship that SSRs affected during the availability have been updated. This verification of accuracy and currency is made in writing by the NSA with the preprinted SSR package delivered to the ship prior to Fast Cruise. Copies of this verification are to be forwarded to the cognizant SPM, the cognizant PY, and the TYCOM.

For Industrial Availabilities of all ship types the PY/NSA will verify the delivery status of the SSRs at the EOA milestone, and will also verify that the Coordinated Shipboard Allowance List (COSAL) has been updated, in accordance with the verification requirements of reference S4(t)

and Section 8 of this manual.

4-11.6 External Interfaces for SSRs

TYCOMs maintain and provide to the cognizant PYs and SPMs, at A-2, a listing of all Title "K", "D", "F", and "K-P" SHIPALTs, MACHALTs, AIT and TYCOM issued alterations and changes accomplished since the last availability. Changes made after A-2 are to be reported to the PY at the start of an availability for non-nuclear powered ships or to the cognizant NSA for submarines and nuclear powered surface ships.

Ship's Force SSR maintenance actions are as follows (TYCOMs determine mandatory actions and issue implementing instructions):

a. Designate Ship's Master Copies of each SRD or Selected Record Data item. These copies should be maintained to reflect actual ship configuration at all times.

b. Designate one ship's coordinator responsible for all matters pertaining to SSR.

c. Forward master SSR copies to the ship class PY for reprinting when corrections and updates render the masters illegible with follow-up to ensure receipt of corrected masters.

d. For AIT efforts or non-industrial availabilities, assure that impacted Ship's Master Copies are marked-up (i.e. Intermediate Maintenance Activity (IMA), Ships Force) by the installing activities.

e. For overhauls and drydocking availabilities, provide the NSA or PY representative, as applicable, with the Ship's Master Copies of SSR at SOA.

f. Maintain a listing of all ship's drawings that must be delivered to the NSA or PY upon entering an availability. This listing may be a marked-up Ship Drawing Index (SDI).

g. Forces afloat responsibilities and procedures for Reactor Plant and Tender Nuclear Support Facility SSRs are specified in references S4(a), S4(b) and S4(c).

4-11.7 SSR Transfer for PY Assignment Changes

When notified by NAVSEA of pending changes in the PY assignments (see reference S4(d)), the current PY will be responsible for establishing orderly SSR transfer procedures and carrying out the transfer in a timely manner. When the new PY is identified, it shall make a formal request to the "old" PY for documentation transfer. All documentation is to be forwarded within 30 days of receipt of a valid and authorized request. The cost of SSR transfer is not chargeable to MDS, but will be absorbed in PY overhead.

SUBSECTION 4-12 NUCLEAR SHIP AND NUCLEAR SUPPORT FACILITY

4-12.1 Scope

This subsection of the addresses the policies and procedures for reactor plant Ship Alterations (SHIPALTs) in nuclear-powered ships and Nuclear Support Facility alterations in tenders as delineated in references S4(a), through S4(c).

4-12.2 Policies Observed by Reactor Plant and Nuclear Support Facility Planning Yards (PYs) and Design Agencies

To support the alteration and maintenance of reactor plants of nuclear-powered ships, certain design services and related work must be performed. They include the following:

a. Because of reactor safety implications inherent in alterations to nuclear propulsion plants, it is essential that designated design activities experienced in nuclear propulsion plant work perform design services and related work.

b. NAVSEA 08 defines the specific responsibilities of a PY for Naval nuclear reactor plants and nuclear support facilities in this subsection, and in reference S4(a) for nuclear support facilities in submarine tenders, in reference S4(b), for submarines and reference S4(c) for nuclear-powered surface ships.

c. When considered necessary and appropriate on a case-by-case basis, NAVSEA 08 will assign a Design Agency. When applicable, Design Agents will be specifically identified in SHIPALTs or other NAVSEA 08 correspondence.

Reference S4(j) shows the Reactor Plant PY/Nuclear Support Facility PY assignments.

4-12.3 Reactor Plant PY/Nuclear Support Facility PY Responsibilities

The RPPY/Nuclear Support Facility PY will provide the following reactor plant design services and related work as directed by NAVSEA 08, following receipt of written technical instructions from NAVSEA 08:

a. Design studies.

b. Detailed alteration work drawings, installation procedures, and test requirements or test procedures checked as required on the applicable ships and coordinated with other activities as necessary. Drawing preparation shall commence on issuance of the SHIPALT unless otherwise authorized by NAVSEA.

c. SHIPALT packages and proposals.

d. Engineering work packages.

e. Corrections to Reactor Plant/Nuclear Support Facility Selected Record Drawings.

f. Corrections to Reactor Plant/Nuclear Support Facility Selected Record Data.

g. Provide the following Reactor Plant/Nuclear Support Facility design services and related work, on a routine basis:

1) Periodic status reports and other special reports on a frequency dictated by the necessity to disseminate the information.
2) Liaison services to repair and overhaul activities, Naval Inventory Control Point-Mechanicsburg (NAVICP-M), and forces afloat (per references S4(a), through S4(c)). NAVICP-M LARs shall be resolved per NAVSEA letter Ser 08H-0820 of 29 October 1987.

3) Custody and maintenance of all drawings identified as reactor cognizance in the SDI or listed in the Cumulative Booklet and all reactor plant Selected Record Data.
4) Files of all engineering and design information developed in conjunction with reactor plant work including photographic negatives and selected piping X-rays.
5) Preparation, maintenance, and updating of Overhaul and Repair Specifications, material documents, designated component technical manuals, Nuclear Support Facilities Manuals and other manuals as may be assigned by NAVSEA 08.
6) Preparation, maintenance, and updating of selected standard drawings and diagrams.
7) Engineering studies and services including cost estimates as specifically requested by NAVSEA 08.
8) Establishment and maintenance of an information retrieval file of all PY documents in a suitable media as approved by NAVSEA 08. Reproduction and distribution services as authorized by NAVSEA 08.
9) Assignment of reactor plant/nuclear support facility component numbers and titles.
10) Preparation and maintenance of as-built drawings, and technical variance documents, in accordance with references S4(a), S4(b) or S4(c).
11) Provide provisioning and technical documentation and Individual Repair Part Ordering Data (IRPOD) to NAVICP-M for reactor plant repair parts Allowance List development and procurement.
12) Material identification and, specifically, identification of NSNs where applicable as well as sources of supply.

4-12.4 Design Agency Responsibilities

When directed by a SHIPALT or other written technical instructions from NAVSEA 08, a Design Agent will provide the following reactor plant design services and related work:

a. Design studies.

b. Detailed alteration working drawings, installation procedures, and test requirements coordinated with other activities as necessary.

c. Engineering services.

d. Cost estimates.

e. Reproduction and distribution services.

f. Liaison services for cognizant SHIPALTs as specified in references S4(a), S4(b) and S4(c).

4-12.5 Supervisor of Shipbuilding, Conversion and Repair (SUPSHIP) Responsibilities

The cognizant SUPSHIP will provide the following:

a. Approve and validate Reactor Plant/Nuclear Support Facility PY or designated DA work in accordance with the procedures outlined in this section or as directed by correspondence from NAVSEA 08.

b. Schedule, coordinate, and monitor shipchecks as directed by NAVSEA 08.

c. Assist the Reactor Plant/Nuclear Support Facility PYs or DA as required for material identification and, specifically, identification of NSNs where applicable.

d. Provide recommendations and contractual action in connection with SHIPALT packages.

e. Authorize drawings and information dissemination to other Navy activities in accordance with applicable security requirements.

f. Assist the RPPY/Nuclear Support Facility PY in maintaining an up-to-date library of

Navy Publications, Instructions, and Operating Instructions.

g. Resolve SSR discrepancies identified by Reactor Plant/Nuclear Support Facilities PY with Hull PYs.

h. Provide local government approval, validation, and other services connected with the work performed by the Reactor Plant PY/Nuclear Support Facilities PY or other designated Design Agency.

4-12.6 Design Services and Related Work

The RPPY/Nuclear Support Facilities PY or designated Design Agency will perform all required shipyard design services and related work to support accomplishment of SHIPALTs on reactor plants of nuclear-powered ships/nuclear support facilities during overhaul periods, post shakedown availabilities, restricted availabilities, and other work periods. This work will be performed under the direction of NAVSEA 08.

4-12.6.1 Authorization

The Reactor Plant PY/Nuclear Support Facilities PY or designated Design Agency will provide design services and related work upon receipt of a SHIPALT or other written technical instructions from NAVSEA 08 or it's designated agent. In addition, the RPPY/Nuclear Support Facilities PY will provide such other services as specifically directed by the cognizant SUPSHIP, such as requests from other naval activities for copies of drawings and other information.

4-12.6.2 Farm Out

The RPPY/Nuclear Support Facilities PY or designated Design Agent will not "farm out" reactor plant/nuclear support facility design services and related work to other activities without prior approval of NAVSEA 08.

4-12.6.3 Approval

Reactor Plant/Nuclear Support Facility alteration design work will normally be forwarded to NAVSEA 08 for approval unless specified otherwise in SHIPALT or other technical instructions from NAVSEA 08.

4-12.6.4 Validation

All Reactor Plant Alteration Drawings are to be validated by the cognizant SUPSHIP for issue to and use by other activities after such drawings have been approved in accordance with paragraph 4-12.6.3 and any comments have been incorporated by the Reactor Plant PY or designated Design Agent. Other alteration design work such as installation procedures, test procedures, or test requirements, and other documents prepared by the PY or designated Design Agency, will be validated by the cognizant SUPSHIP when specifically requested in SHIPALTs or other written technical instructions from NAVSEA 08.

4-12.6.5 Security Classification

The RPPY/Nuclear Support Facilities PY or designated Design Agency will ensure that all security classification requirements of CG-RN-1, Energy Research and Development Administration- Department of Defense (ERDA-DOD) Classification Guide for Naval Nuclear Propulsion Program and other applicable instructions are adhered to in the performance of reactor plant design services and related work.

4-12.6.6 Schedules and Priority

Completion of reactor plant/nuclear support facility design work will be scheduled to support orderly planning and accomplishment of work during overhauls or availabilities. NAVSEA 08 and installing activities will provide lists of reactor plant SHIPALTs and other work planned for specific nuclear-powered ship overhauls and availabilities. The PY or Design Agent will review this information to ensure proper scheduling of design work and compliance with required completion dates. SHIPALT design work will be scheduled to support Target Ready for Accomplishment dates specified in Ship Alteration Approval Records.

4-12.6.7 Liaison and Feedback

Reactor Plant/Nuclear Support Facilities design work requires effective liaison among the RPPY/Nuclear Support Facilities PY, NAVSEA 08, Reactor Plant Prime Contractors, designated Design Agencies, Forces Afloat, and repair or overhaul activities. The Reactor Plant/Nuclear Support Facility PY/ or designated Design Agency will coordinate design work as follows, and will send copies of all correspondence relating to such work to NAVSEA 08:

a. Coordinate design work with cognizant Reactor Plant Prime Contractors whenever appropriate. Where SHIPALTs issued by NAVSEA 08 are based on design proposals made by prime contractors, necessary information concerning these SHIPALTs will be obtained by the RPPY or designated Design Agency from the prime contractors.

b. Coordinate with equipment vendors the correction of design problems identified in shipbuilder-furnished reactor plant components in conjunction with the performance of engineering services or when directed by NAVSEA 08.

c. Obtain specifications required to perform engineering services assignments from appropriate nuclear power organizations in other shipyards.

d. Provide engineering assistance as required by forces afloat and by repair or overhaul activities to ensure proper and timely accomplishment of reactor plant work.

e. Review information provided by repair or overhaul activities and NAVSEA 08 on the usefulness and accuracy of design information furnished and incorporate corrections and improvements into subsequent design work. Feedback from operating ships and tenders will be provided through NAVSEA 08 or the cognizant SUPSHIP.

f. Ensure that sketches or other information provided by installing activities reflect current installations on ships and are recorded in Reactor Plant/Nuclear Support Facility SSR, as appropriate.

4-12.6.8 Periodic Status Reports

The RPPY/Nuclear Support Facilities PY will provide a periodic report(s) containing detailed status of design work in progress for all nuclear-powered ships or classes of ships or nuclear support facilities under its cognizance. These reports should contain sufficient descriptive information to identify the work items and should identify action completed, action being taken on each aspect of the design work, and the activity responsible for the next action. Reports are to be furnished to NAVSEA 08 and other specified activities.

4-12.6.9 Records

The RPPY/Nuclear Support Facilities PY will maintain files of completed design work and maintain custody of master drawings and documents as identified in subsection 4-12.3 and references S4(a) through S4(c). Master copies of reactor plant SSR, however, shall not be

transferred to overhaul and maintenance activities. All changes or corrections to reactor plant SSR will be made only by the RPPY or assigned DA as requested by NAVSEA 08. The Design Agency will provide to the Reactor Plant PYs full size reproducible, and/or suitable electronic media of each alteration drawing, working drawing, or Selected Record Drawing necessary for the Reactor Plant PY to comply with the requirements of this manual and references S4(a) through S4(c). The Design Agency shall maintain drawing originals and/or suitable electronic media along with design data used in development of Reactor Plant SHIPALTs until authorized by NAVSEA to either destroy them or transfer them to the PY.

4-12.7 Design Services Requirements

Reactor Plant/Nuclear Support Facility SHIPALTs generally require detailed design work by the RPPY/Nuclear Support Facilities PY or designated Design Agency. Specific requirements for such work are stated in SHIPALTs or other written technical instructions from NAVSEA 08.

4-12.7.1 Design Studies

For proposed SHIPALTs, NAVSEA 08 or its designated agents will request a design study when a technical proposal is required from the RPPY/Nuclear Support Facility PY or designated Design Agency. Such studies will be used to determine the feasibility of accomplishing proposed SHIPALTs or to evaluate the need for corrective action when reactor plant problems are reported. Other information such as the feasibility of Forces Afloat accomplishment of an alteration, estimated weight and moment changes, proposed Ready for Accomplishment dates, and cost estimates may also be requested. Detailed requirements for specific design studies will be provided in the correspondence requesting such studies.

4-12.7.2 SHIPALTs

SHIPALTs are normally issued for all Reactor Plant/Nuclear Support Facility alterations. Each SHIPALT identifies what information and/or material should be available at the time the alteration is scheduled for accomplishment, and who is responsible for providing the information and material. The RPPY/Nuclear Support Facility PY, designated Design Agency, or Reactor Plant Prime Contractor will provide alteration drawings, installation procedures, and test procedures or test requirements in the manner requested in each SHIPALT.

For SHIPALTs requiring significant work in high radiation areas, the RPPY/Nuclear Support Facilities PY, designated Design Agency, or Reactor Plant Prime Contractor may also be requested to provide additional elements of an "engineered work package" as described in Subsection 4-12.7.5.

SHIPALTs accomplished by forces afloat may require special material or other items to permit accomplishment. The RPPY/Nuclear Support Facility PY or designated Design Agency may be requested to provide additional elements of a "SHIPALT package" described in Subsection 4-12.7.6 for such SHIPALTs.

4-12.7.3 Alteration Drawings

4-12.7.3.1 Preparation of Alteration Working Drawings

Detailed Alteration Working Drawings will be prepared by the RPPY/Nuclear Support Facility

PY or designated Design Agency as required by SHIPALTs or other written technical directions from NAVSEA 08. Whenever practicable, drawings will be prepared for a Reactor Plant type or ship class; however, differences between ships of a class are to be clearly indicated on the drawings. The determination to revise existing drawings, or produce new alteration drawings, is the responsibility of the RPPY, or designated Design Agency; however, all drawings will comply with references S4(a) through S4(c).

4-12.7.3.2 Ripout Drawings

The RPPY/Nuclear Support Facility PY or designated Design Agency will prepare ripout drawings for SHIPALTs unless approved otherwise by NAVSEA 08.

4-12.7.3.3 Compatibility Review of Alteration Drawings

Design Agencies shall submit Alteration Drawings to the RPPY/Nuclear Support Facilities PY or Hull PY, as applicable, for compatibility review with current or planned SHIPALTs.

Reactor Plant/Nuclear Support Facilities PYs will request applicable Hull PY review and concurrence for Reactor Plant/Nuclear Support Facility alterations affecting areas under the cognizance of the Hull PY.

4-12.7.4 Installation Procedures, Test Procedures, and Test Requirements

4-12.7.4.1 Preparation

Detailed installation procedures will be prepared by the RPPY/Nuclear Support Facilities PY or designated Design Agency as required by SHIPALTs or other written technical instructions from NAVSEA 08. Test procedures or test requirements will be provided for each Reactor Plant/Nuclear Support Facility alteration for which testing is required. SHIPALTs or other written technical instructions from NAVSEA 08 will request preparation of test procedures or test requirements by the RPPY/Nuclear Support Facility PY or designated Design Agency, as necessary.

4-12.7.4.2 Content

Installation procedures and test procedures or test requirements will be prepared separately for each alteration, assuming each alteration is to be accomplished on an individual basis (i.e., not in conjunction with, or at the same time as, other SHIPALTs) unless otherwise agreed to by NAVSEA 08. Installation procedures will include, as appropriate:

a. Propulsion plant/support facility conditions necessary for the performance of an alteration.

b. Drawings, documentation, special tools and test equipment, and engineering services required for SHIPALT installation.

c. Special radiological control requirements and precautions.

d. Special rip-out instructions, if required.

e. Detailed procedures for accomplishing the installation, including inspection requirements.

f. Procedures for returning the plant to normal operating condition.

g. Test requirements identifying test(s) to be performed and the source of the test procedures(s). These sources are normally NAVSEA approved documents applicable to the

ship(s) being tested.

h. Test procedures for SHIPALTs written in the same format as test procedures for newly constructed nuclear-powered ships. NAVSEA 08 technical approval letters, when applicable, will be indicated on the final issue of installation procedures.

i. Instructions for obtaining on board repair parts.

4-12.7.4.3 Compliance

Test procedures, or test requirements, prepared by the RPPY/Nuclear Support Facilities PY or designated Design Agency must comply with applicable requirements contained in power plant or reactor plant manuals, reactor plant component technical manuals, or other NAVSEA approved documents and must be approved by NAVSEA 08 prior to final issue of the procedures and requirements to other activities.

4-12.7.5 Engineered Work Packages

Engineered work packages will include the following elements:

a. Those elements contained in installation procedures (Subsection 4-12.7.4).

b. Identification of special tooling, mockups, training, temporary shielding, clean areas, contamination enclosures, expected personnel radiation exposure, and other items required to permit accomplishment of the alteration as expeditiously as possible with minimum personnel radiation exposure. Actual special tooling and mockups required will be provided when requested by NAVSEA 08. The Reactor Plant PY or designated Design Agency will perform necessary work (such as mockup demonstration and shipchecks) to verify the adequacy of procedures and tools for work in a radioactive area. When required, mockup demonstrations are to include the suiting of personnel in anti-contamination clothing and mockups of any temporary shielding required in the immediate work area.

c. Additional elements as may be required by NAVSEA 08.

4-12.7.6 SHIPALT Material Kits.

A kit of material for a SHIPALT is normally centrally procured, assembled and held at NAVICP-M until requisitioned by the designated NSA. Requests for procurement of SHIPALT kits will be provided by in the SHIPALT or other correspondence from NAVSEA 08. If the material is not provided in a kit, direction for the NSA to obtain the material will be provide in the SHIPALT or other correspondence from NAVSEA 08.

4-12.7.7 Shipchecks

a. Alteration drawings are not normally ship checked by the RPPY/Nuclear Support Facility PY or designated Design Agency for each ship of a class. A more meaningful check of Reactor Plant Alteration Drawings for a particular ship can be made by the Installing Yard which will be responsible for accomplishing the SHIPALT and integrating this work with other nuclear and non-nuclear work items. To support this effort, Reactor Plant/Nuclear Support Facility Alteration drawings are normally provided to an Installing Yard in time for the pre-arrival ship check.

b. The RPPY/Nuclear Support Facility PY or designated Design Agency may request a ship check by Forces Afloat or repair or overhaul activity personnel to provide as-built configuration information for a particular ship. When such shipchecks are considered necessary, sketches noting critical dimensions to be verified and/or areas to be photographed must be designated by

the RPPY/Nuclear Support Facility PY or designated Design Agency. NAVSEA 08 concurrence is required for any shipchecks considered necessary and performed by other activities.

c. Should the RPPY/Nuclear Support Facility PY or designated Design Agency perform a ship check, arrangements with Forces Afloat typically will be made by the cognizant SUPSHIP following receipt of NAVSEA 08 concurrence.

4-12.8 Related Work Requirements

The RPPY/Nuclear Support Facility PY will maintain custody of all tracings of Reactor Plant/Nuclear Support Facility Working Drawings, Alteration Drawings, Reactor Plant/Nuclear Support Facility SSR, photographs, microfilms or other records for assigned ships, as described below.

4-12.8.1 Working Drawings and Alteration Drawings

See references S4(a) through S4(c).

4-12.8.2 Reactor Plant Selected Record Drawings

See references S4(a) through S4(c).

4-12.8.3 Photographs and Microfilm

See references S4(a) through S4(c).

4-12.8.4 Reactor Plant Selected Record Data

Reactor Plant/Nuclear Support Facility Selected Record Data consists of certain component technical manuals for shipbuilder-furnished Reactor Plant/Nuclear Support Facility equipment and Reactor Plant/Nuclear Support Facility portions of the SDI and Allowance Lists as specified below.

4-12.8.4.1 Component Technical Manuals

Reference S4(x) provides specific information on maintaining Reactor Plant/Nuclear Support Facility component technical manuals.

4-12.8.4.2 SDI

The SDI is described in reference S4(w). The SDI for nuclear-powered ships is under the custody of the Hull PY except that the Reactor Plant Supplement to the SDI for nuclear-powered surface ships, for USS PARCHE (SSN 683), and for Nuclear Support Facilities, is under the custody of the of the RPPY/Nuclear Support Facility PY.

4-12.8.4.2.1 Nuclear-Powered Submarines

Corrections and additions to Reactor Plant Drawings and related design information included in the SDI for nuclear-powered submarines are to be prepared by the RPPY in accordance with the following procedures: (Note: For USS PARCHE (SSN 683 “see the paragraph on Nuclear-Powered Surface Ships”).

a. The construction shipyard prepares an SDI for each nuclear-powered submarine and provides a reproducible copy of the SDI to the RPPY via the cognizant SUPSHIP following initial issue. A copy of the SDI is to be furnished to the RPPY via the cognizant SUPSHIP following initial issue.

b. The RPPY will review the SDI to determine if the drawings, including Reactor Plant SRDs, held by the Reactor Plant PY are marked appropriately. SDIs that have not been reviewed in the above manner are to be forwarded by the Hull PY to the RPPY for appropriate review.

c. The SDI is to be maintained in accordance with reference S4(w), except that all changes, corrections, and additions to Reactor Plant drawings and related design information will be prepared by the RPPY. To facilitate updating, the Design Agency developing alteration drawings will provide the Reactor Plant PY information which cross-indexes each Reactor Plant.

d. The RPPY will forward alteration drawing to the parent drawing(s) affected or changed by the design information to individual ships as necessary via the cognizant SUPSHIP to the Hull PY or Overhaul Yard, as appropriate, for inclusion in the regular issue of SDI corrections.

e. The RPPY shall identify to the applicable Hull PY, SUPSHIP, and NAVSEA 08 all instances of SDI revisions not being issued within six months of issuance of a request for change from the RPPY.

4-12.8.4.2.2 Nuclear-Powered Surface Ships, USS PARCHE (SSN 683), and Nuclear-Powered Facilities

The SDI for these ships is in two parts. Part I, the Non-Reactor Plant/Non-Nuclear Support Facility part is maintained by the Hull PY. Part II, the Reactor Plant/Nuclear Support Facility Supplement to the SDI is maintained by the RP/Nuclear Support Facility PY. The Reactor Plant/Nuclear Support Facility Supplement to the SDI for nuclear surface ships and these submarines (Part II of the SDI) contains cumulative and cross-reference data for all Reactor Plant/Nuclear Support Facility drawings that are under the cognizance of the RPPY/Nuclear Support Facility PY. This includes design drawings, as-built drawings, alteration drawings, and selected record drawings. The information in Part II of the SDI is not duplicated in Part I of the SDI.

4-12.8.5 Allowance Lists

Allowance lists for nuclear ship reactor plants are maintained current by installing and overhauling activities, forces afloat, and NAVICP-M in accordance with reference S4(y). The RPPY/Nuclear Support Facility PY is responsible for preparing and maintaining technical ordering documentation for shipbuilder furnished Reactor Plant components and system equipment and repair parts, except for equipment for which this responsibility has been specifically assigned to a Reactor Plant Prime Contractor. DAs for Reactor Plant SHIPALTs shall provide provisioning documents or other allowance list information to NAVSEA or NAVICP-M for material or component procured by them for SHIPALT packages in accordance with Subsection 4-12.7.6. Each NSA performing reactor plant work has the basic responsibility per reference S4(t) for ensuring that Allowance List changes are made to reflect work that they perform on a ship.

4-12.8.6 Cost Estimates

The RPPY/Nuclear Support Facility PY or designated Design Agency will provide NAVSEA 08, upon request, cost estimates for reactor plant SHIPALTs and other work, including estimates for design services required, material, and installation costs.

4-12.9 Distribution Requirement

4-12.9.1 Alteration Drawings and Procedures

Distribution requirements are specified in applicable SHIPALTs or by NAVSEA 08 in separate correspondence.

4-12.9.2 SHIPALT Packages
Distribution requirements are specified in applicable SHIPALTs.

4-12.9.3 Engineered Work Packages
Distribution requirements are specified in applicable SHIPALTs.

4-12.9.4 Reactor Plant/Nuclear Support Facility Selected Record Drawings
Distribution requirements are provided by NAVSEA 08 in separate correspondence.

4-12.9.5 Reactor Plant/Nuclear Support Facility Selected Record Data
Distribution requirements are provided by NAVSEA 08 in separate correspondence.

4-12.9.6 Periodic Reports
Distribution requirements are provided by NAVSEA 08 in separate correspondence.

4-12.10 Funding Responsibilities
Reactor Plant and Nuclear Support Facility design services and related work are performed under various NAVSEA contracts with assigned RPPY/Nuclear Support Facility PYs and designated Design Agencies. Funding requirements for this work are stated in the terms of the contracts.

SECTION 6 FINANCIAL MANAGEMENT
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SUBSECTION 6-1 INTRODUCTION

6-1.1 Scope

This section of the Fleet Modernization Program (FMP) Management and Operations Manual discusses the financial management of the FMP including program formulation (Program Objectives Memorandum (POM)/Program Review (PR)), budget preparation and review, and financial execution. The policies and procedures described outline the financial structure and components of the FMP, rules governing the budgeting and execution of requirements, tools utilized, and participants and their roles. Financial management of the FMP emphasizes:

- Utilization of established policies and procedures for the budgeting and execution of requirements.
- Development of cohesive, defensible budgets reflecting program decisions made by the Chief of Naval Operations (CNO) and executed by the Deputy CNO for Resources, Warfare Requirements and Assessments (N8), Warfare Division Directors or CNO Platform Sponsors (N42, N75, N76, N77 and N78), the Director of Space and Information Warfare (N6) and the Director of Supportability, Maintenance and Modernization Division (N43).
- Management of tasking and funding to ensure proper execution as defined by CNO Resource Sponsors, timely obligation and expenditure of budgeted funds, and maintenance of "full funding" and "annualization" policies as currently defined by the Comptroller of the Navy, Financial Management of Budgets (FMB), and higher authority.

Naval Sea Systems Command (NAVSEA), Naval Air Systems Command (NAVAIR), and Space and Naval Warfare Systems Command (SPAWAR) are responsible for financial management of the FMP efforts executed from their Commands. However, because the Ship Program Managers (SPMs) are the central technical authority for all ships and ship platforms, responsible for approving all Title "K" and Title "K-P" Ship Alterations (SHIPALTs) and ensuring the SHIPALTs are installed properly aboard their platforms, coordination among the Systems Commands (SYSCOMs) is essential for proper budgeting and execution of the FMP. The Navy Data Environment-Navy Modernization (NDE-NM) Logistics Application and Fleet Modernization Program Management Information System (FMPMIS) Modules were developed to assist in accomplishing this objective.

This section of the FMP Manual provides an overview of the FMP financial management process from budget formulation to execution. Because NAVSEA is responsible for coordinating the FMP activities of both NAVSEA and the Program Executive Officers (PEOs) all references to NAVSEA or the NAVSEA SYSCOM, if not otherwise stated, will include the activities of the PEOs. In Subsection 6-2 general financial management rules and considerations will be discussed as they pertain to the FMP. Subsection 6-3 will discuss unique FMP financial management considerations and outline the five major cost components of the FMP including the matching of available financial resources to these components. In Subsection 6-4, the major tools used for FMP formulation and execution are described. Subsection 6-5 describes those steps in the Planning, Programming and Budgeting System (PPBS) appropriate to the FMP. Details of the execution process, starting with an approved FMP budget, are discussed in Subsection 6-6, while a detailed description of the principal responsibilities of the major FMP participants is discussed in Subsection 6-7.

6-1.2 References

S6 (a) DOD 7000.14-R Department of Defense (DOD) Financial Management Regulations (FMR), Subj: DOD Budget Formulation and Execution Policies and Procedures (Updated Changes through 12 February 2002)

S6 (b) OPNAVINST 4720.2, Series, Subj: Fleet Modernization Program (FMP) Policy

S6 (c) NAVSO P-1000, Series, Subj: Financial Management Policy Manual

S6 (d) NAVSEAINST 4720.11, Series, Subj: Shipboard Installation and Modification Performed by Alteration Installation Teams AIT

S6 (e) FMPMIS Program Module On-Line Users Manual

S6 (f) FMPMIS Execution Module On-Line Users Manual

S6 (g) NAVSEAINST 4720.6, Series, Subj: Preliminary and Final Cost Estimates by Industrial Activities for Ship Alterations

S6 (h) NAVSEAINST 7670.1, Series, Subj: NAVSEA Industrial Fund (NIF) Financial Management Systems and Procedures Manual

6-1.3 Background

6-1.3.1 General

The FMP was established to provide a structure for the orderly planning, programming, budgeting and installation of military, survivability and technical improvements to ships of the active, reserve and auxiliary fleets. Funding of the FMP has evolved over time due to Congressional and Department Of Defense (DOD) actions. Equipment costs have always been funded by the investment appropriations; however, installation costs have been less consistent. Prior to Fiscal Year (FY)90 all installation efforts were funded within the maintenance appropriation. From FY90-FY94 they were funded entirely within the investment appropriation Budget Line Item (BLI) and in the same FY as the procurement of the associated equipment buy. Since FY95, installation efforts may be funded with one or the other appropriation depending on installation type. Current policy includes the following considerations:

- Procurement of Headquarters Centrally Provided Material (HCPM)
- Elements of "full funding" as it applies to the acquisition and installation of equipment
- Elements of "annualization" of the budget process
- Incorporation of the following Navy appropriations:
  - Other Procurement, Navy (OPN)
  - Weapons Procurement, Navy (WPN)
  - Aircraft Procurement, Navy (APN)
  - Operation and Maintenance, Navy (O&MN)

6-1.3.2 Headquarters Centrally Provided Material (HCPM) Funding

Procurement of HCPM is budgeted and managed by the LCMs/PARMs within the SYSCOMs.

This is accomplished in coordination with the SPMs to ensure equipment procurements and their deliveries are matched to ship availability schedules. HCPM is budgeted within the Navy procurement appropriations (OPN, WPN, APN) as investment items.

6-1.3.3 Full Funding

In accordance with reference S6(a), Volume 2A, Chapter 1, DOD policy for Full Funding dictates that funds must be budgeted to cover the total estimated cost of a given procurement requirement in a fiscal year. A requirement budgeted in one fiscal year cannot depend upon a future year's funding to be completed. For the FMP, hardware costs must be fully budgeted in the fiscal year required and associated installation costs must also be fully budgeted in the fiscal year required. The required fiscal years may be different.

6-1.3.4 Annualization

With enactment of the FY1994 budget (FY1994 Appropriations Conference Report, H.R. 103-339, dated 9 November 1993), Congress directed FMP installation costs be funded on an "annualized" basis beginning in FY1994. Annualization requires that all HCPM installations be budgeted in the same procurement (OPN/APN/WPN) BLIs as their parent procurements but be budgeted in the year the installation effort is to exist. Additionally, non-equipment SHIPALT planning and installation and all design efforts for both equipment and non-equipment installations were to be budgeted in annual increments in the O&MN appropriation beginning in FY1995. Funding of design requirements for equipment installations was subsequently transferred to the OPN appropriation as discussed in subsection 6-1.3.5 below.

6-1.3.5 Design Services Allocation (DSA) Funding Transition

During the FY1996 Summer Reviews FMB determined that budgeting for DSA costs related to procurement installations within the O&MN appropriation weakened the relationship between procurement, design, and installation. Failure to fund DSA costs ultimately jeopardizes the installation of equipment. Therefore, FMB Issue 61494 (Fleet Modernization Program-Realignment) transferred DSA costs supporting procurement installations from the O&MN appropriation to the appropriate procurement appropriation beginning in FY1998. This ensured full funding of all HCPM installation requirements within the procurement appropriations (OPN/APN/WPN). All non-equipment installation DSA requirements remain funded in the O&MN appropriation.

6-1.4 Summary of Organizational FMP Financial Management Responsibilities

6-1.4.1 Overall Responsibilities

Programming, budgeting and execution procedures for the FMP are shaped by the fact that the FMP is a CNO program. NAVSEA is the lead executive agent, in coordination with the SPMs, SPAWAR and NAVAIR, for overall policy, planning, programming, and execution of the program in accordance with reference S6(b). Major organizational responsibilities and financial management authority for all participants is provided in Subsection 6-7.

6-1.4.2 CNO Responsibilities

N8 is the overall coordinator for the planning, programming, and budgeting of modernization efforts among the Warfare Sponsors (N42, N6, N75, N76, N77, and N78) and for providing

POM guidance in accordance with the Secretary of Defense (SECDEF), Secretary of Navy (SECNAV), and CNO strategies and initiatives. The Warfare Sponsors, in turn, work with the FLTCINCs, TYCOMs, and the SYSCOMs for prioritization of SHIPALTs, for development of the POM, and ultimately provide the funding resources for all equipment and installation efforts. CNO (N43) is the director of FMP policy, maintains the official depot level availability schedule in the NDE-NM Logistics Application, and is the Resource Sponsor for upgrades and maintenance of the NDE-NM Logistics Application and the FMPMIS database.

6-1.4.3 Naval Sea Systems Command (NAVSEA)

COMNAVSEA is the technical authority for all phases of technical and financial management for Title "K" and Title "K-P" SHIPALTS funded within NAVSEA/PEO accounts and for developing and approving TYCOM funded Alterations Equivalent to Repair (AERs). The SPM is responsible for installation of HCPM and non-HCPM ship alterations, including initial and detailed SHIPALT planning and cost estimating, SHIPALT design and programming, and preparation and submission of installation budget data. They perform some of these same functions for NAVAIR and SPAWAR funded installation programs or provide input as required. LCMs/PARMs are responsible for procurement of HCPM for ship installations, budgeting of the procurement requirements and, when designated as such, also price and manage AIT installations. NAVSEA is also the CNO's executive agent for determining the impact of Title "K" and "K-P" SHIPALTS onboard ship and submarine platforms and their integration onboard these platforms across the Navy; including those funded by NAVAIR and SPAWAR. NAVSEA 04 is responsible for overall FMP policy, as approved by CNO (N43), development and dissemination of shipyard man-day rates, and development and maintenance of the modernization databases. NAVSEA 013 Comptroller responsibilities, as FMP financial Management oversight, are outlined in Subsection 6-7.5.4; NAVSEA 014 Comptroller responsibilities are outlined in Subsection 6-7.5.5.

6-1.4.4 Space and Naval Warfare Systems Command (SPAWAR) and Naval Air Systems Command (NAVAIR)

SPAWAR and NAVAIR are the technical authority for technical and financial management of Title "K" and "K-P" SHIPALTS funded within their Command accounts. The LCMs/PARMs are responsible for procurement of HCPM for ship installation and the budgeting and submission of these procurement requirements. While the LCMs/PARMs also budget for the installation of the HCPM, they do not develop all the installation costs. It is their responsibility to price and manage AIT installation efforts which includes initial and detailed SHIPALT planning as well as SHIPALT design. These tasks are passed to the NAVSEA SPMs for shipyard installations. SPAWAR and NAVAIR coordinate with the SPMs on technical issues associated with ship integration and installation as well as development and submission of their budget backup data for the FMP as required.

6-1.4.5 Fleet Commanders in Chief (FLTCINCs) and Type Commanders (TYCOMs)

FLTCINCs are responsible for defining the depot level availability schedules for all operating Navy ships. TYCOMs are responsible for coordinating with Chief of Naval Operations (OPNAV) and the SYSCOMs for prioritizing Title "K" and Title "K-P" SHIPALTs, for prioritizing and funding the installations of all Title "D" and "F" SHIPALTs and AERs, and for providing funding for follow-on SHIPALT Installation Drawing (SID) development for Title

“D” and “F” SHIPALTs. Initial SID development is typically tasked and funded by the NAVSEA SPMs to the Planning Yards (PYs). The TYCOM may fund initial SID development and task the PY with SPM concurrence.

SUBSECTION 6-2 GENERAL FINANCIAL MANAGEMENT CONSIDERATIONS

6-2.1 Scope

This subsection reviews the major financial management policies and procedures which affect administration of the FMP. While these factors relate to Navy financial management in general, the discussion will be from the perspective of the FMP. Those financial management policies and procedures will be discussed in Subsection 6-3.

6-2.2 FMP Appropriations

The FMP is currently funded by the OPN, WPN, APN, and O&MN appropriations. Details of FMP component funding by these appropriations, as well as unique FMP appropriation circumstances and rulings, are defined in Subsection 6-3 of this manual. Reference S6(a) and S6(c) describe these appropriations in detail, and are the principal financial management references for all SYSCOM accounting.

6-2.3 Legal Constraints

The controlling factors in the management of all appropriated funds, including the FMP, are 31 U.S.C. 1301(a) (formerly R.S.3678) and 31 U.S.C. 1517 (formerly R.S. 3679). These laws require adherence to two very basic principles: funds may only be obligated and/or expended for purposes for which they were specifically appropriated; and, secondly, they may not be obligated and/or expended in excess of the amounts appropriated. References S6(a) and S6(c) apply.

- To ensure adherence to the first principle (31 U.S.C. 1301 (a)), once an FMP budget has been approved by Congress and the President, efforts must be funded as budgeted within the respective appropriation, be in compliance with the unique requirements of that appropriation, must meet the expense/investment criteria, and must be issued under the most appropriate document for the job. Changes to the budget must be approved, at a minimum, by the CNO sponsor or their designated agent (i.e. LCM/PARM and/or SPM), and must remain within the context of the approved budget. Congress recognizes the need to adjust the program for fact-of-life changes or revised priorities. CNO is, therefore, permitted to revise the scope of work provided that an audit trail of all additions and deletions is maintained for subsequent review.
- To ensure adherence to the second principle (31 U.S.C. 1517), obligations and expenditures must be limited to the amount of money authorized in the budget and/or in funding documentation issued for execution. The SYSCOM Comptroller offices, using the Standard Accounting and Reporting System (STARS)/Headquarters Claimant Module (HCM) and, in the case of NAVSEA, also utilizes the FMPMIS Execution Module, review all funding documentation to ensure that obligations do not exceed approved, budgeted amounts prior to signature and release of funds outside their Commands. Where cost estimates exceed these amounts, reprogramming actions may be issued to increase obligation authority, within reprogramming thresholds, in accordance with the delegation of this authority by CNO in reference S6(b). Control of potential cost increases is discussed further in Subsection 6-2.5, Limitations of Liability.

6-2.4 Bona Fide Need Rule

This rule applies to all one-year and multiple-year appropriations, and requires that obligations

be made only to meet a legitimate need arising in the FY obligation period for which the appropriation was made. References S6(a) and S6(c) discuss this further.

6-2.5 Limitation of Liability

Navy policy states that neither the Planning Estimate shown on the official funding documentation be exceeded nor work that will eventually exceed the Planning Estimate be undertaken, without prior approval by the SYSCOMs. Planning Estimates allow the accomplishing activity to make an informed decision on whether to begin or continue work, balancing the benefits with the latest projected cost of the work and the potential for non-completion within authorized limits. In any cases, SYSCOMs will not be liable for work undertaken which results in overruns unless advised of increased anticipated cost as soon as the possibility for such increase is apparent. It is recognized that unusual circumstances beyond direct control of the performing activity may cause the costs to exceed the Planning Estimate. The unusual circumstances include, but are not limited to:

- Acts of God
- Strikes
- Incorrect design products or technical guidance received from external sources
- Non-receipt or substitution of material for that listed on official FMPMIS TP-05, or NDE-NM 4720 Report, which causes a disruption in design and/or production schedules

In such cases, the SYSCOM and/or CNO are to be advised immediately of the potential for additional expense, including an assessment of the increased cost to complete assigned tasks and alternatives, if additional funds cannot be made available.

6-2.6 FY1991 National Defense Authorization Act (Public Law 101-510)

This act (previously known as "M" account funding) significantly changes the financial management of appropriations after expiration of their period of availability for obligation. In summary, upon expiration of obligation authority of an appropriation, the appropriation will maintain its fiscal year identity for five more years during which time unobligated balances will be available for legitimate “within scope” obligation adjustments (i.e. cost overruns) as well as disbursement. “New Scope” obligations and expenditures may not be incurred. On September 30th of the fifth FY after obligation authority expiration, the expired account is closed and all unobligated and unexpended balances cancelled. Disbursement of legitimate obligations after this date must come from current appropriated FY funds which would require a reduction or cancellation of current-year program. Within the context of the FMP, there exists potential for these circumstances when Requests for Equitable Adjustments (REAs) and other FMP financial obligations incurred in shipyard availabilities are not resolved/adjudicated within the five-year period. Reference S6(a) describes this policy in more detail.

6-2.7 Prohibition of Modernization of Ships to be Inactivated (Public Law 105-56)

The FY 1998 DOD Appropriations Act (Public Law 105-56 Title VIII, Sec 8053) prohibits Navy ship modernization within five years of ship inactivation, with the exception of certain safety modifications. The prohibition may be waived only if the SECNAV of the Navy determines it is in the best national security interests of the U.S. to provide such a waiver. The decommissioning status of Navy Ships shall be evaluated as an integral part of any alteration’s installation and proper procedures, as mandated by this law, must be followed before funds can be obligated or

expended on an alteration's installation in the five-year window. To meet the requirements of Public Law 105-56 and to ensure vital alterations are expeditiously installed, all activities requesting alteration installations on ships within five calendar years of decommissioning, except for certain safety alterations, must submit a waiver request as outlined in subsection 1-4 of this manual.

SUBSECTION 6-3 FMP FINANCIAL MANAGEMENT CONSIDERATIONS

6-3.1 Scope

This subsection describes the major financial management considerations that are peculiar to the financial structure and execution of the FMP.

6-3.2 Current FMP Financial Structure

- All HCPM procurement and installation requirements, including advance planning and design, are budgeted and executed within the OPN, WPN, or APN appropriations. These funds are controlled at the BLI level and have a three-year availability for new obligations. Availability of funds beyond the three years are discussed in Section 6-2.6 in accordance with reference S6(a).
- Non-equipment installation requirements, including advance planning and design, are budgeted and executed within the FMP O&MN modernization support budget. These funds are controlled at the Activity Group (AG)/Sub-activity Group (SAG) and subhead level, and have a one-year availability for new obligations. Availability of funds beyond the one-year are discussed in Section 6-2.6 in accordance with reference S6(a).

6-3.3 Major FMP Cost Components Requiring Funding

There are five separate components into which all FMP costs can be categorized. These FMP financial management components are:

a. Procurement of HCPM to be installed in ships as part of FMP modernization efforts.

b. Installation of Title “K” and “K-P” SHIPALTs in scheduled depot level availabilities. These costs include but are not limited to:

- Labor and overhead;
- Procurement of incidental material at public shipyards;
- Common availability costs shared with the TYCOMs (Prorated Costs);
- Combat systems hardware and computer system testing and integration;
- In the private sector, the cost of change orders issued by Supervisors of Shipbuilding, Conversion and Repair (SUPSHIPs) to modify basic contracts for within-scope changes or for work added to an ongoing availability; and, other availability support costs as determined by the SPM.

c. Advance Planning (AP) Funding. This is the portion of the Title “K” and Title “K-P” SHIPALT installation funding that must be provided to the installation activity (and other activities) in FYs preceding the induction of the ship in the installation availability. These costs include but are not limited to:

- Prefabrication of Title “K” and “K-P” SHIPALTs;
- Issuance of plans and job orders;
- Identification of required incidental material; and,
- Procurement of incidental material

d. DSA Funding. The FMP funds SHIPALT design products and certain configuration control document changes and efforts required prior to, during, and/or after SHIPALT installations. Although each CNO Platform Sponsor may include different sub-elements/tasks within this component, the most common, major items are listed below.

- Justification/Cost Form (JCF)

- Ship Alteration Record (SAR)
- SHIPALT Installation Drawing (SID)
- Shipcheck
- Liaison Action Records (LAR)
- Ship Selected Record (SSR)
- Configuration Overhaul Planning (COP)
- Miscellaneous Documentation Services (MDS)

e. Alteration Installation Team (AIT) and Program Support: Funding for AIT programs is comprised of advance planning, design and installation requirements as discussed in reference S6(d). Program Support includes all non-installation execution support of the FMP and are typically in support of ship "class" requirements (i.e. FMP databases and Cost and Feasibility Studies).

6-3.4 Matching FMP Financial Requirements in the Budget to the FMP Financial Structure

6-3.4.1 Procurement of HCPM

Requirements for HCPM procurements are a direct result of approved Title "K" and Title "K-P" SHIPALT installation plans in the FMPMIS Program Module. The LCM/PARM is responsible for estimating and budgeting procurement costs, coordinating timing of procurement buys with the SPM to match installation schedules, negotiating the award of the actual procurement, and ensuring delivery of the equipment to the shipyard. LCMs/PARMs must budget HCPM procurements in the proper BLI of the OPN, WPN, or APN appropriation and provide budget displays that show matches of HCPM procurements with specific installations.

6-3.4.2 Installation of Title "K" and "K-P" SHIPALTs in Depot Level Availabilities

The SPM is responsible for estimating the installation man-days required for all Title "K" and "K-P" SHIPALTs applicable to ship classes under that SPM's purview. Conversely, budgeting and execution of installation requirements in availabilities is accomplished by the SPM or LCM/PARM, depending on who owns acquisition responsibilities of the SHIPALT. LCM/PARM funding, for issuance under a NAVSEA contract, is forwarded to NAVSEA for execution. All other funding within their budgets is executed from their organizations. There are two types of Title "K" and "K-P" SHIPALTs installed during Depot Level availabilities; those requiring HCPM and those that do not.

6-3.4.2.1 SHIPALTs Requiring HCPM

These installation requirements must be budgeted in the same OPN, WPN, or APN BLI as the parent HCPM procurement in accordance with annualization policy discussed in Subsection 6-1.3.4. The installation, advance planning, and design requirements are to be budgeted in the FY in which the efforts commence.

6-3.4.2.2 SHIPALTs Requiring No HCPM

These installation requirements are funded within the O&MN appropriation under NAVSEA's "Mod Support" FMP AG/SAG and must be budgeted in accordance with annualization policy discussed in Subsection 6-1.3.4. The installation, advance planning, and design requirements are to be budgeted in the FY in which the efforts commence.

6-3.4.3 Advance Planning (AP) of Title "K" and "K-P" SHIPALTs in Depot Level Availabilities

The SPM is responsible for estimating the AP man-days required for all Title "K" and "K-P" SHIPALTs for ship classes under their cognizance. Conversely, budgeting and execution of AP is accomplished by either the SPM or LCM/PARM depending on who owns acquisition responsibilities of the SHIPALT. AP may be budgeted two years prior and/or one year prior to a SHIPALT's installation. AP supporting the installation of HCPM must be budgeted in the same OPN/WPN/APN BLI as the parent HCPM buy and in the year the AP effort is to commence. AP supporting non-equipment installations must be budgeted in the NAVSEA O&MN FMP line and in the year the effort is to commence.

6-3.4.3.1 Advance Planning (AP) Algorithm

The AP algorithm is utilized for budget purposes in the FMPMIS Program Module. AP requirements for Title "K" and "K-P" SHIPALTs are defined in total man-days, by the SPM in the NDE-NM Logistics Application, based upon the generic requirements of the SHIPALT in the class. Once an alteration is programmed against a shipyard availability in the FMPMIS Program Module, the algorithm spreads the AP man-days at A-2 (two years prior to the availability start) and/or A-1 (one year prior to the availability start) based on an agreed upon percentage determined by the SPM and approved by the Sponsor. Funding required is then calculated based on the number of man-days times the man-day rate. The algorithm may differ between SPM programs and can be changed with Sponsor approval. The AP algorithm for AIT installations is described in Section 6-3.4.5.

6-3.4.4 Design Services Allocation (DSA)

The SPM is responsible for estimating DSA man-day requirements for all Title "K" and" K-P" SHIPALTs and first-time Title "D" and "F" SHIPALTs for ship classes under their cognizance. Conversely, budgeting and execution of DSA is accomplished by the SPM or LCM/PARM depending on who owns acquisition responsibilities of the SHIPALT. DSA may be budgeted two years prior, one year prior, and/or in the year an availability commences. DSA supporting the installation of HCPM must be budgeted in the same OPN/WPN/APN BLI as the parent HCPM buy and in the year the DSA effort is to commence. DSA supporting non-equipment installations and first time Title "D" and "F" SHIPALTs must be budgeted in the NAVSEA O&MN FMP line and in the year the effort is to commence.

6.3.4.4.1 Design Services Allocation (DSA) Algorithm

The DSA algorithm is utilized for budget purposes in the FMPMIS Program Module for both shipyard and AIT Title "K" and "K-P" SHIPALT installations. In accordance with the algorithm, the DSA requirement for a shipyard install is defined in man-days as a percentage of the total AP and installation man-days programmed to install the SHIPALT. The algorithm then spreads the DSA man-days over A-2, A-1, and A-0 (year of availability start) based upon an agreed upon percentage determined by the SPM and approved by the OPNAV Program Sponsor. Funding is calculated based upon the number of man-days times the man-day rate. DSA requirements are based upon a number of factors including the generic requirements of the class and DSA milestones described in Section 4 of this manual. The algorithm may differ between SPM programs and can be changed with OPNAV Program Sponsor approval. The DSA

algorithm for AIT installations is described in Section 6-3.4.5.

6-3.4.5 Alteration Installation Team (AIT) for Title "K" and Title "K-P" SHIPALT Programs and Program Support

- Installation costs for all elements in this FMP component requiring procurement of HCPM must follow the same rules as defined in Subsections 6-3.4.1 and 6-3.4.2.1
- Installation costs for all elements in this FMP component that do not require HCPM procurement must follow the same rules as defined in Subsection 6-3.4.2.2.
- AP is budgeted as described in reference S6(d) and defined in Subsection 6-3.4.3. No algorithm exists for generating AP for AIT installs in the prior years and must be estimated and budgeted within the annualized program lines in the budget FYs in which the effort will commence.
- DSA in this component is budgeted and funded as described in reference S6(d) and defined in Subsection 6-3.4.4. DSA funding requirement for an AIT install can be budgeted two years prior, one year prior, or in the year of install. The Program Module algorithm generates an AIT DSA dollar requirement, as a percentage of the total AIT cost, in the same fiscal year as the install. The resulting dollar value may be manually increased or decreased based on more realistic data. No algorithm exists for generating prior year DSA for AIT installs. Prior year design requirements must be budgeted within the DSA program lines in the budget FYs in which the effort will commence.
- Costs for Program Support, as described in Subsection 6-3.3, must be budgeted in the FY the effort is to commence and within the appropriate OPN BLI or FMP O&MN AG/SAG.

6-3.5 FMP Man-day Rates

Public and Private Sector shipyard man-day rates are required for the development of FMP Title "K" and "K-P" SHIPALT installation funding requirements for POM, budget submissions (Department Of Navy (DON), Office of the Secretary of Defense (OSD), Congressional), and other budget purposes. The estimated cost of a SHIPALT installation is the sum of the incidental material costs and the product of the man-day estimates times the man-day rate for the applicable installation FY, location and hull. AP and DSA are priced based on the man-day estimate times the man-day rate. NAVSEA 013 receives rates from NAVSEA 04, shipyard activities, the Fleet, and FMB, as required, and determines the final man-day rates for entry into the FMPMIS database. Since man-day rates drive the pricing and repricing of installation requirements for budgetary purposes, accuracy of the rates is critical. Factors considered when determining rates include consistency of man-day rates used by NAVSEA and the FLEET in pricing their budgets, specific direction from FMB or NAVSEA 04, approved escalation factors, and the budget submission being prepared at a point in time. Man-day rates are updated at each budget submission as necessary. Private sector rates typically remain unchanged for a year, however, public sector rates are updated at each submit based on Navy Working Capital Fund (NWCF) budget adjustments made by FMB, OSD, or Congressional action. As a result, the FMPMIS Program Module budget files do not reflect the same man-day rates. The process for establishment, approval, and entry of man-day rates follows.

6-3.5.1 Private Sector Man-day Rates

Private Sector rates are developed by the individual private sector shipyards, reviewed by the Defense Contract Audit Agency (DCAA), and forwarded to NAVSEA 04 for final approval.

Based on these individual rates, NAVSEA 04 develops the weighted average port and east/west coast weighted rates, applies escalation factors to develop outyear rates, and issues the final approved rates to the Fleet, NAVSEA 013, and other FMP customers for budget development.

6-3.5.2 Public Sector Man-day Rates

Public Sector rates are developed by the NSYs, reviewed and modified by NAVSEA 04 to include FMB directed surcharge costs, and forwarded to NAVSEA 015 (the budget submitting office for the Naval Shipyards) for incorporation into the shipyards' budgets and for issuance to the Fleet, NAVSEA 013, and other FMP customers for their budget development. NAVSEA 013 applies escalation factors to calculate outyear rates, as required. The rates are then submitted to FMB for final approval via the shipyard budgets. Public sector rates change based on FMB's review of shipyard workloading as well as decisions made by OSD and Congress relative to shipyard workloading.

6-3.5.3 FMPMIS Man-day Rate Entry

With NAVSEA 013 concurrence, man-day rates are entered into the FMPMIS Program Module by NAVSEA 04. OPNAV Platform Sponsors and SPMs use the approved rates for budget development and "gaming" efforts to price and match availability costs to budget controls.

SUBSECTION 6-4 TOOLS FOR THE BUDGETING AND FINANCIAL MANAGEMENT OF THE FMP

6-4.1 Scope

This subsection discusses the major tools available to the SYSCOMs and CNO to structure budgeting, programming and financial management of the FMP.

- Navy Modernization Databases
- NDE-NM Logistics Application
- FMPMIS Program Module
- FMPMIS Execution Module
- STARS

6-4.2 Navy Modernization Databases

There are two primary databases which support financial management of the Fleet Modernization ProgramFMPMIS and NDE-NM. FMPMIS was established under the direction of CNO (N43) in coordination with the FLTCINCs to support the Fleet Modernization Program and Fleet Maintenance Program in order to ensure operational readiness of the Fleet. The purpose of FMPMIS is to provide an automated, integrated information support system to enhance the decision-making capabilities of FMP and Fleet Maintenance managers. FMPMIS is a windows-based program used to plan, program, budget, and execute all aspects of the Fleet Modernization Program and for planning and programming purposes for the Fleet Maintenance Program in support of the U.S. Navy, Military Sealift Command (MSC), and U.S. Coast Guard (USCG) ships. Three modules were developed to support these efforts; Logistics, Program, and Execution. NDE-NM was developed and established as an enterprise data model to integrate and merge existing modernization, maintenance and logistics data structures into a single design. Only the data and functions originally performed in the FMPMIS Logistics Module are accomplished in the NDE-NM Logistics Application today. In order to support the budgeting and execution requirements of the FMP, information is replicated and copied between the FMPMIS database and the NDE-NM Logistics Application. FMPMIS and NDE-NM are the official automated systems supporting FMP information/decision making requirements Navy-wide. All elements of the FMP must be resident in the NDE-NM Logistics Application or FMPMIS if they are to be considered in the planning, programming and execution processes. Data exchange details between the databases and modules is discussed in Section 11 of this manual. The NDE-NM Logistics Application and the Program and Execution Modules in FMPMIS are key to FMP installation budgeting and execution.

6-4.2.1 Navy Data Environment-Navy Modernization (NDE-NM) Logistics Application

The NDE-NM Logistics Application is a PC-based system managed by NAVSEA 04 and replaces the FMPMIS Logistics Module. NDE-NM users are all FMP participants within the FMP community (includes the SYSCOMs, OPNAV, Fleet, field activities, shipyards, planning yards). The NDE-NM Logistics Application contains basic alteration data (including SHIPALT numbers, descriptions, and man-day estimates), SHIPALT prioritization decisions of the CNO Sponsors, the official depot level availability schedule, SHIPALT material requirements, and the "approved" results of the OPNAV Program Sponsor/SPM programming of SHIPALTs into specific availability packages as a result of the budget development process.

6-4.2.2 FMPMIS Program Module

The Program Module is a PC-based system managed by NAVSEA 04. Users are OPNAV Program Sponsors (N42, N75, N76, N77 and N78), SPMs, LCMs/PARMs, and SYSCOM Comptroller Offices, as applicable. Its primary purpose is for the programming and budgeting of FMP installation requirements across the Future Year Defense Plan (FYDP) in accordance with CNO priorities and funding levels. It also serves to facilitate the execution of the FMP. Files within the module allow OPNAV Program Sponsors and SPMs to manipulate SHIPALT data exchanged with the NDE-NM Logistics Application, into fully-priced, discrete SHIPALT availability packages in order to finalize their respective FMP budgets; matching the available dollars to the highest priority CNO requirements. It allows this "gaming" to proceed independently without disturbance to the other budget files or modules within the FMPMIS database. The Program Module creates the NC50 and OP5a budget exhibits necessary for each budget submission as well as a variety of useful program related reports, as described in Section 11 of this manual and reference S6(e). The Program Module is also utilized to create and approve funding realignments, or escrow changes, within the approved modernization program accounts.

6-4.2.2.1 Escrow Change (EC)

The EC is the vehicle utilized to realign funds within the approved program between SHIPALT availabilities, AIT, and Program Support lines. ECs are prepared in the Program Module by the SPMs. Prior to approval, the financial changes are checked electronically against the BLI or AG/ SAG budget controls in the Execution Module to ensure obligation authority is not exceeded. Funding provided to NAVSEA via Project Directive (PD) require ECs which are processed in the Execution Module. ECs are routinely created as a result of the following:

- Addition or deletion of SHIPALTs
- Revised man-day estimates
- Revised incidental material estimates
- Establishment of a new availability
- Change of FY of an availability (which may also change the man-day rate)
- Change in location of an availability
- Emergent requirement
- Reprioritized SHIPALTs
- Budget reductions

6-4.2.3 FMPMIS Execution Module

The Execution Module is a PC-based system managed by NAVSEA 04. Current users are the SPMs and the NAVSEA01 Comptroller. While the Logistics Application is a data repository and the Program Module is a program development and budget submission system, the Execution Module is a financial execution and tracking system. Budget data is transferred to this module from the Program Module for execution. Installation funding provided to NAVSEA for execution via PD (i.e. from NAVAIR and SPAWAR) require ECs which are processed in the Execution Module. This module is designed to provide four areas of financial execution support which are summarized below. Details of these may be gained from Section 11 of this manual and reference S6(f). These Execution Module support areas are:

- Creation and validation, on-line, of Funding Documents (FDs) and Financial Accounting Documents (FADs) forwarded electronically to the NAVSEA 01 Comptroller for approval. Once FDs and FADs are approved, they are transferred to the Navy's Automated Document Processing System (AUTODOC) for Comptroller signature and posting to STARS.
- Recording of ECs; maintains EC audit trail to track program changes.
- Obligation Phasing Plans for the O&MN appropriation may be formalized in the Execution Module for planning future cash allocations.
- Allocation of financial controls and cash to SPMs and tracking of execution progress against available cash balances.
- Creation of reports including, Execution Reports, Cash Management Reports and Accounting Reports.

6-4.2.4 Interrelationship of NDE-NM Logistics Application and FMPMIS

Select data elements within the NDE-NM Logistics Application and the FMPMIS database are shared and/or transferred in order to properly budget and execute the FMP. Where the Logistics Application provides data elements such as the SHIPALTs, man-day estimates and availability schedules, it is the Program Module that pulls these elements together and "games" the SHIPALTs into availability packages to price and budget installation requirements. After budget completion, select approved budget data is transferred from the Program Module back to the Logistics Application to ensure both systems reflect the most recent CNO approved program. Approved budget data is passed to the Execution Module, from the Program Module, to provide the financial baseline and funding realignments (i.e. escrow changes) for program execution.

6-4.3 Standard Accounting and Reporting System (STARS)

STARS is the Navy's official accounting and financial management system for all funds allocated or passed to Navy claimants. STARS provides detailed financial information for financial managers to monitor, track, and validate actual execution data (i.e. funding documents/contracts and their commitments, obligations and expenditures; funding allocations by account; funds on deferral; etc.) against approved budget line items. No funds may be released from a SYSCOM without being entered into the HCM of STARS. STARS/HCM is the SYSCOMs' module for STARS access; STARS/Field Level (FL) is a series of modules used for STARS access by various field activities. The SYSCOM Comptroller is responsible for all FMP STARS/HCM entries, for conducting validations to ensure accuracy of funding document and contract lines of accounting, and ensuring sufficiency of funds within budget controls for a given BLI and/or AG/SAG.

SUBSECTION 6-5 PLANNING, PROGRAMMING AND BUDGETING SYSTEM (PPBS) PROCESS

6-5.1 Scope

The PPBS process defines the Navy's mission to support National security plans and defense strategies, identifies needs to accomplish the mission, and allocates resources to meet the needs. It is the means for centralized planning and programming of requirements for budget development and execution to produce a realistic Navy-wide plan for the future. Specific milestones and major events in the PPBS process require intensive effort and the success of FMP long range management depends upon consistent attention, throughout the budget process, to the prioritization, programming and refinement of HCPM procurement and installation requirements for Title "K" and "K-P" SHIPALTs and other modernization support requirements. If a modernization effort does not appear in the POM it is unlikely that it will appear in an approved FMP budget.

6-5.2 Overview

The Integrated Warfare Architecture Reviews (IWARs)/CNO Program Analysis Memorandum (CPAM) process represents the "Planning" portion of PPBS and provides the guidance for development and preparation of the POM. The POM is CNO's outyear budget plan and represents the "Programming" portion of PPBS. Because the IWARs/CPAM process is conducted at a high level, it is not until the POM guidance is received that FMP participants become involved. Once the POM is submitted to OSD and approved, the requirements are then included as part of the official Budget. The "Budget" portion of PPBS includes formulation, presentation, review, justification and execution of DON programs and represents the fiscal plan for accomplishing those program objectives. Emphasis is placed on executability and pricing of the first two budget years extracted from the POM for a series of reviews over a sixteen-month period. This process ends in Congressional and Presidential agreement on budget enactment on 1 October.

6-5.3 Program Objectives Memorandum (POM)/Program Review (PR)

"POM" refers to both a process and a product. The POM process, for FMP participants, begins every other October (even numbered FYs) and proceeds for eight months, culminating in the Navy's submission of the SECNAV-approved POM, or Six-Year FYDP (the POM product) to OSD in May. The PR process occurs every other October, in the odd numbered FYs, and is a review of the POM submission from the previous FY.

Knowledge of the POM/PR process is necessary to ensure concentration of effort on the accuracy of the FMP at those critical points when accurate products must be expeditiously produced. Specific guidelines will be issued each cycle by the Navy Comptroller, FMB, defining the following milestones more precisely and identifying the specific efforts required of all participants to support POM development and submission.

6-5.4 Budget

When the Navy POM is submitted to OSD, the closest two FYs of the six-year POM program become the focus of the budget review process. Budget quality estimates and execution details are required. Estimates are refined, budget exhibits prepared and submitted, and the budget

review process continues for another sixteen months, culminating in enactment of the budget on 1 October. If Congress has not passed the Defense Appropriation Act by 1 October, Navy begins operating under a Continuing Resolution Authority (CRA). During a CRA funding is authorized and issued at a reduced level until the Appropriation Act is passed.

The first FY program of the two-year budget goes through the entire sixteen-month process only once, then begins execution. Just before that occurs, the second FY program of the two-year budget begins a second round of reviews, leading to commencement of execution a year later. Thus, although it is described as one, two-year budget review process, the second (odd numbered) FY receives a second full set of reviews before enactment.

The most important areas of support and participation by FMP participants after submission of the budget to FMB, are rapid, accurate and complete responses to requests from higher authority in the clarification/justification of FMP budget issues; complete preparation for, and participation in budget reviews held by FMB, OSD and Congress; and, continual update of the FMPMIS Program Module to reflect the decisions made at each step in the process. SYSCOM Comptrollers are responsible for coordination of these efforts and issuance of budget guidance each year to clarify the milestone dates and required actions.

SUBSECTION 6-6 FMP FINANCIAL EXECUTION

6-6.1 Scope

This subsection provides the details of the financial execution of the FMP, from the time an FMP budget has been approved and enacted. It describes the development of subaccounts and financial controls; documentation of the approved program; development and management of a financial obligation plan; and, details appropriate to the financial execution of each of the five principal financial components of the FMP (Subsections 6-3.3 and 6-3.4 of this manual).

6-6.2 Process Overview

The execution process begins with enactment of an approved FMP budget and several management planning steps must be taken using the best planning baseline available prior to a fully approved budget. This baseline is the last approved Congressional budget submission, or "President's Budget". Preliminary execution planning is done from this baseline which can later be modified to reflect the budget finally approved by Congress and signed by the President. The enactment of the budget should occur annually on 1 October. It is sometimes delayed, and the FMP may begin execution under a CRA. CRA grants limited funding authorization during specific periods of time until the budget is enacted.

6-6.2.1 Establishment of Accounts

Reference S6(c) establishes the requirement to manage and execute the FMP in separate P-1 accounts, also referred to as Budget Line Items (BLIs) for programs funded within the procurement (OPN/WPN/APN) appropriation and AG/SAGs for programs funded within the O&MN appropriation. Within those accounts, the FMP is then executed in subaccounts (i.e. separate equipment and install accounts) in order to protect the integrity of funds in execution. A Chart of Accounts is established to represent these accounts in STARS.

6-6.2.1.1 Chart of Accounts

At the beginning of each FY, the SYCOM Comptrollers establish Charts of Accounts in STARS/HCM for all appropriations based upon the approved budget. The purpose of a chart of accounts is to identify “sub accounts” within a Procurement BLI or O&MN AG/SAG for execution of approved funding levels. Typically these accounts are set up based upon the Resource Financial Manager (RFM) who executes the funds. Obligation authority/funding controls are assigned accordingly. Since FMP installation efforts are managed to the SPM level for installation accounts, the installation Chart of Accounts is established to include a separate subaccount for each SPM program. For NAVAIR and SPAWAR executed installation programs, one account, each, is established for equipment and installation.

6-6.2.2 Establishment of Financial Execution Controls

Budget controls are the financial limits within each account/subaccount beyond which obligations may not be incurred. They reflect the values approved and enacted in the budget. They are not to be confused with "requirements" which are values requested in the budget process, but not necessarily approved. SYSCOM Comptrollers issue FMB established controls at the BLI and AG/SAG levels, and then to lower levels, “sub”controls, for execution as required. These “sub” control assignments parallel the establishment of the Chart of Accounts as discussed in Subsection 6-6.2.1.1.

6-6.2.3 Changes to Financial Execution Controls

Once controls are established, the only way in which they may be modified is by FMB issued adjustments or Above/Below Threshold Reprogramming (ATR/BTR), as necessary. Subsection 6-6.2.6 discusses the ATR/BTR process further. The adjudication of excess or insufficient control value in any FMP account or subaccount, once identified, is the responsibility of the OPNAV Program Sponsor, SPM (on behalf of the Sponsor), or SYSCOM Comptroller depending on the circumstances. Results of approved ATR/BTR actions are entered in STARS/HCM and, for NAVSEA installation programs, are also carried out by escrow change in the FMPMIS Execution Module (see Subsection 6-4.2.2.1).

6-6.2.4 Financial Obligation Planning

6-6.2.4.1 Obligation Plan

SPMs, AIT/Program Support Managers, and LCMs/PARMs must develop obligation plans for all FMP equipment and install efforts for which they hold execution responsibility. The control values assigned must be phased by month and/or quarter (as defined annually by the respective Comptroller) to reflect the points in time when funds are required and must be obligated to support specific tasks.

6-6.2.4.2 Obligation Tracking

Obligations can be tracked to the BLI for OPN/APN/WPN funded programs, AG/SAG for O&MN funded programs, or funding document levels to ensure timely obligation of funds and adherence to the obligation plan.

6-6.2.4.3 Obligations in STARS

The SYSCOM Comptroller and/or Receiving Activity is responsible for entering all official FMP obligations in STARS/HCM. Since budget reductions are assessed due to poor obligations, it is to the benefit of the FMP participants to track the status of their obligations and expenditures in STARS/HCM.

6-6.2.5 Funds Recapture and Realignment

In order to ensure timely obligation and expenditure of funds, and to preclude deobligation and/or return of funds after funds expiration, FMB and the SYSCOM Comptrollers conduct execution status reviews six months into the fiscal year (Midyear Review) and at each DON submission. STARS/HCM is used as the basis for these reviews. Informal reviews of STARS data take place periodically by the Comptrollers for other budgetary actions. Funds identified as available for recapture are returned via amendment to the basic document or contract mod. All funds returned remain available, against the BLI or AG/SAG, for realignment or reprogramming to cover overruns or shortfalls elsewhere. Reprogramming and reprogramming threshold limitations are discussed in the following Subsection 6-6.2.6.

6-6.2.6 Funding Reprogramming and Reprogramming Thresholds

Reprogramming actions are changes in the application of financial resources during execution which deviate from how these resources were originally budgeted for, testified to, and described in justification material submitted to Congress supporting funding authorization. The SYSCOM

Comptroller is required to maintain a record of the cumulative increases and decreases to individual BLIs and AG/SAGs to ensure appropriation reprogramming thresholds are not broken. There are certain conditions under which a reprogramming action is required which requires either written Congressional approval of the four Congressional Defense Committees (The House and Senate Armed Services and House and Senate Appropriations Committees) or letter notification. In accordance with reference S6(a) (Vol 3, Ch 6 dated August 2000), these conditions are as follows:

6-6.2.6.1 Written Congressional Approval

- Increase the procurement quantities of a major end item above Congressionally authorized levels.
- Affects a special interest item of one or more Congressional committees.
- Involves use of general appropriation transfer authority (i.e. movement of funds between appropriations).
- Exceed agreed upon thresholds.

  O&MN Appropriation

  (a) Cumulative increase of $15M or more in a budget activity.

  Procurement Appropriations

  (a) Cumulative increases of $10M or more in a procurement line item.

  (b) Cumulative decreases of $10M or more, or 20 percent of the appropriated amount, whichever is greater.
- New Start Program. A program, subprogram, modification, project, or subproject not previously justified and funded by Congress through the normal budget process.
  (a) Establishment of a new procurement line item, procurement program, procurement subprogram, and/or modification with first-year costs of $2M or more during any program year.
  (b) New starts within a procurement program, procurement subprogram, and/or modification with estimated total costs (all appropriations) of $10M or more within the first three years.
- Termination of a Program.
  (a) Elimination of a procurement program.
  (b) Elimination of a subprogram within a procurement program which is equal to the total amount of the procurement program.
  (c) Elimination of a subprogram of $10M or more within a procurement program.

6-6.2.6.2 Congressional Notification Letter

- New programs or new Line Items not otherwise requiring prior Congressional approval.
- A new program, subprogram, and/or modification whose total cost is less than $2M.
- Safety modifications whose total costs (all appropriations) are less than $10M.
- Termination of programs falling within the below-threshold reprogramming amounts for procurement programs or subprograms costing less than $10M as long as the procurement line is not eliminated.

6-6.2.7 Basic FMP Execution Process

Execution controls are established in STARS/HCM for equipment and installation requirements. The installation controls are also entered into the FMPMIS Execution Module for SPM

installation programs. The LCMs/PARMs and SPMs are responsible for preparing and submitting official funding documents. For NAVSEA equipment procurements, funding documents are accomplished on line through the Automated Document Processing System (AUTODOC). For NAVSEA installation efforts this is first accomplished on line through the Execution Module and then signed and completed through AUTODOC. NAVSEA AIT Program Managers, who do not have on-line access to the Execution Module, must submit hard-copy AIT installation funding requests to the appropriate SPM for processing through the Execution Module. For SPAWAR and NAVAIR this is achieved through their official Financial Management Information Systems for FMP efforts under their cognizance. Documents are reviewed, approved and signed by the designated Comptroller authority, forwarded to the receiving activity for acceptance and signature, and obligations entered into STARS/HCM by the SYSCOM or the receiving activity.

6-6.2.8 Execution Module Capabilities

For a complete description of Execution Module operation and capabilities, refer to reference S6(f). In addition to previously noted capabilities some of the other important ones follow:

- Provision for installation cash controls for AG/SAGs and SPM accounts within a BLI.
- Provision to track the status of funding documents. (The funding request process line is updated automatically on a predetermined schedule, to enhance timely request/document processing).
- Validation of fiscal and program data on funding documents as well as automatic population of certain document fields.
- Provision to record current accumulated balances established by Escrow Change as well as a record all program changes.

6-6.3 FMP Tasking for Execution

There are two ways of authorizing and funding FMP installation work. First, by execution of a contract with a private firm in accordance with applicable procurement policies. Second, by issuance of a valid financial document (Project Order, Work Request, etc.) to a Navy activity.

6-6.3.1 Tasking Under Contracts

Installation tasking under contracts can be either severable (product, completion type tasks) or non-severable (level of effort type tasks). Proposed tasking prepared by the Procurement Request (PR) originator will be provided by BLI or AG/SAG with the originating PR for negotiation and inclusion by NAVSEA 02.

6-6.3.1.1 Non-Severable Tasking

This type of tasking specifies in detail, by BLI or AG/SAG, the work to be accomplished and the product to be delivered (in the case of SHIPALT execution the product is the modernized ship). Under non-severable tasking, funds required to complete the task are obligated at the time the contract is signed and entered into STARS/HCM although they may not be expended until later.

6-6.3.1.2 Severable Tasking

These taskings are normally issued for goods or services which cannot be specified at the time of contracting. In these cases an amount (hours) of services can be estimated by BLI or AG/SAG but the specific tasks are identified during the period of performance. Severable tasks will

normally specify an expected number of man-hours, and establish a target amount or maximum level for tasking. Under the "bona fide need" concept, severable tasks will normally be issued and controlled in order to ensure that all funds are obligated (i.e. all services are completed) prior to 30 September of the FY of obligation authority expiration for the appropriation in question.

6-6.3.2 Tasking Under Funding Documents

Due to the length and complexity of tasking for FMP install work and in order to provide planning data for both accomplishing and supporting activities, the tasking and funding for FMP work will normally consist of one or more tasking and funding documents. These will detail the work to be done and provide an estimate of the cost to accomplish it, to the BLI or AG/SAG. The funding document will reference the tasking document as a statement of work and will establish an official Planning Estimate which matches the estimated cost in the tasking document. Three important considerations apply:

- Both the tasking and the funding are required before work can begin
- When the Planning Estimates in the tasking and funding documents do not agree, the estimate on the funding document takes precedence. (The SYSCOM Comptroller will adjudicate issues of this nature.)

6-6.4 Financial Execution of the Five Principal FMP Components

6-6.4.1 Procurement of HCPM

HCPM, required for installation as part of a Title" "K or "K-P" SHIPALT or ORDALT being installed on a ship, is procured with OPN, WPN or APN funding through the normal financial management process within the SYSCOMs. LCMs/PARMs are responsible for execution oversight of these hardware procurement funds, which are segregated from FMP installation funding, in the same BLI. Responsible LCMs/PARMs must time their procurement actions to ensure delivery of material to installation sites by the availability start as scheduled in FMPMIS or for AIT accomplishment. Funding authority for execution of hardware procurements is provided to the LCM/PARM. Subsection 6-3.4.1 also discusses.

6-6.4.2 Installation of Title "K" and "K-P" SHIPALTs in Scheduled Availabilities

Title "K" and "K-P" SHIPALTs installed in scheduled availabilities are accomplished by a Naval Supervising Activity (NSA) or other Installing Activity (IA) under the supervision of an NSA. The NSA is the overhauling NSY or SUPSHIP. An IA is a public or private entity, other than a shipyard, performing the installation (i.e. Alteration Installation Team from a field activity). Funds for execution of this FMP component may be used for the efforts listed in Subsection 6-3.3 of this manual. The correct appropriation and FY funding is determined by applying the rules in Subsection 6-3.4.2. These funds are budgeted by specific ship and availability at the SHIPALT level, and are controlled and issued from the BLI or AG/SAG during execution.

6-6.4.2.1 Tasking Title "K" and "K-P" SHIPALT Accomplishment

The SPM provides initial tasking to Public and Private Sector Shipyard NSAs for installation of authorized SHIPALTs through the SHIPALT Advance Planning (AP) Letter. In accordance with Section 10 of this manual, the AP Letter is issued at Start Of Availability (A)-18 and includes the list of SHIPALTs planned for installation and requests planning estimates for the cost of

accomplishing the SHIPALTs. It is the SHIPALT Authorization Letter, issued by the SPM, that provides the final authorization for accomplishment of SHIPALT installations in scheduled shipyard availabilities. In accordance with Subsection 10-2 of this manual, the Authorization letter is issued at A-12, or NLT A-6, and typically contains the list of SHIPALTs to be accomplished, funding estimates, material procurement/ requisitioning instructions and other required reporting information. The tasking provides the reference for formally establishing a Planning Estimate via the funding document issued by the SYSCOM. Tasking for AIT accomplishment of SHIPALTs is provided by funding document to the AIT activity. In accordance with DON policy, tasking will not be issued unless sufficient obligation authority exists to fully fund the requirement.

6-6.4.2.2 Shipyard Planning Estimates

In accordance with the tasking identified in the SHIPALT Authorization Letter, the NSA prepares a Preliminary Review Estimate (PRE) to provide to the SPM as discussed in reference S6(g). At a later point in time, but prior to Start Of Availability (SOA), the NSA must provide a Final Review Estimate (FRE) to the SPM. Upon receipt of the FRE, and acceptance by the SPM, SHIPALT funding values for the availability are adjusted to equal the FRE values with the differences being moved by escrow change. If a fixed price is accepted at a later date, the Planning Estimate will again be modified to reflect this fixed price (See Subsection 6-6.4.2.3).

6-6.4.2.2.1 Naval Shipyard (NSY) PREs and FREs

In NSYs the PRE forms the basis of the contract between NAVSEA and the shipyard. It indicates that the shipyard has reviewed the work to be done and offered a price at which the work can be accomplished. PREs provide time for the SPM to determine whether work and estimates are within program scope, and to resolve serious deficiencies prior to execution. FREs are furnished no later than A-120 days and provide the NSY's best estimate of cost to complete each SHIPALT, and establish the baseline upon which any adjustment to requested funding must be based. See reference S6(g) for details.

6-6.4.2.2.2 SUPSHIP PREs and FREs

Because the SUPSHIP does not actually accomplish the work, but acts as an agent for the customer, PREs and FREs for SUPSHIP administered availabilities must follow a different pattern. As discussed in reference S6(g), PREs based on SUPSHIP assessment of the total cost, including change orders, must be submitted prior to the expected award of the contract. NAVSEA will use these estimates to determine whether funds are available to cover the total expected cost of the work package. FREs represent the SUPSHIP's contract proposal to the Navy and is the basis for negotiations for contract award. The SUPSHIP FRE will identify the following information

- Pro-rated costs for each SHIPALT
- Government labor and material obligations
- SHIPALTs not included in original PRE
- Estimated cost of adding each new Title "K" and "K-P" SHIPALT by contract modification
- The required reserve for change orders for the entire overhaul period. (Reserves in excess of 10% of the award value require justification)

6-6.4.2.3 Fixed Pricing

Navy policy is for performing activities to enter into fixed pricing agreements with customers to the maximum extent possible. Basic policies and procedures for fixed pricing are contained in reference S6(a). Contracts entered into with the Private Sector shipyards accomplish this objective. However, agreements with the public sector shipyards require a different process:

- Fixed Pricing occurs via a Project Order prior to incurring either 50% of the total cost of the work or prior to reaching the 50% point of the period of performance of the scheduled availability, whichever comes first. For all other work subject to fixed pricing, the 50% completion point is the time when one-half of the funds provided have been expended or projected to be expended, based on work in progress. The public shipyards issue official correspondence to forward their Fixed Price Offer (FPO) at approximately this point in the availability. Fixed Price Project Orders are discussed further in reference S6(a), Volume 11A, Chapter 2.
- SPMs, and/or LCM/PARM (as applicable) shall be responsible for acceptance of all fixed price offers.
- Where offers exceed the planning estimates, the SPM and/or LCM/PARM must find a funding asset within their program or work with their Comptrollers to cover the shortfall. An ATR or BTR may be required in order to accomplish this.
- When work outside the tasking has already been accomplished, SYSCOMs will not be responsible for funding increased costs incurred as a result of this work.
- When funds cannot be made available to cover additional anticipated costs, reduction of the work package may be necessary.

6-6.4.3 Advance Planning (AP) Funding for Installation of Title “K” and “K-P” SHIPALTs in Scheduled Availabilities

The efforts and types of funds to be utilized are defined in Subsection 6-3.3 and Subsection 6-3.4.3 of this manual.

6-6.4.3.1 AP Tasking

Formal tasking is initiated by the SPM. AP Letters are prepared and distributed in accordance with Subsection 10-1 of this manual. When preparing the AP Letters the SPM must consider the following:

- All SHIPALTs identified are approved, programmed and budgeted in the FMPMIS Program Module.
- Alteration planning is consistent with POM/planning data and ensure availability of funds for advance planning efforts.
- Ensure all required HCPM, if applicable, will be available to support the installations.

6-6.4.3.2 NSA Provided Material Procurement

NSA Provided Material that must be procured in advance of the induction of a ship into an availability by a SUPSHIP or public shipyard may be funded from AP Funds. If the procurement is required and funded in the same fiscal year as the installation, installation funds may be used. In either case, all funding must be provided up front to cover the procurement.

6-6.4.3.3 AP Funding Documentation

AP funding is provided to Public Sector Shipyards on Work Requests. Project Orders may be

issued only if the AP is to be accomplished in the same year as the installation and is "specific, definite, and certain both as to work encompassed by the order and the terms of the order itself" as defined in reference S6(a), Volume 11A, Chapter 2. SUPSHIPs are issued PDs. The value for obligation for SUPSHIPs is accrued costs plus material commitments as of the end of the FY. The NSY obligation limit is defined in reference S6(c) as the labor cost of advance planning and the cost of material specifically required for prefabrication.

6-6.4.3.4 AP Execution

Funding requests for individual availabilities must be consistent with the approved BLI and/or AG/SAG restrictions in each of the FYs. AP is budgeted and executed at the SHIPALT/availability level.

6-6.4.4 Design Services Allocation (DSA) Funding

The principal efforts to be included in DSA funding are listed in Subsection 6-3.3 of this manual and discussed in this subsection below. The types of funds to be utilized are described in Subsection 6-3.4.4 of this manual. Milestones for all DSA tasking are contained in Section 4 of this manual.

6-6.4.4.1 DSA Funding Documentation

DSA funding is provided to Public Sector Shipyards and other Navy activities on Work Requests. SUPSHIPs or other private sector activities are issued PDs.

6-6.4.4.2 DSA Execution

Funding requests for DSA must be consistent with the approved, SYSCOM BLI and/or AG/SAG restrictions in each of the FYs. DSA is budgeted at the SHIPALT/availability level but executed at the class or ship type level.

6-6.4.4.3 Justification/Cost Form (JCF)

JCFs are described in Subsection 4-4 and Appendix A of this manual. LCMs/PARMs are typically the budget resource for JCF development as part of their mission. SPMs are responsible for budgeting, as part of DSA, any additional required funding to accommodate PY taskings for JCFs, in the event LCM/PARM resources are not available. JCFs may be tasked and/or developed by LCMs/PARMs, SPMs, Sponsors, or the Fleet. If additional funds are required, a tasking request is sent to the appropriate SPM who submits the funding request to the NAVSEA Comptroller for signature.

6-6.4.4.4 SHIPALT Record (SAR)

SARs are described in Section 4 and Appendix A of this manual. SARs cannot be tasked or developed until after a JCF has been approved and an advance SHIPALT Number assigned and entered into FMPMIS. The cognizant SPM will issue letters in accordance with Section 4 of this manual, specifying anticipated SAR costs and tasking SAR preparation, normally to the Planning Yard, for review and approval. Once the Planning yard reviews and comments, the SPM does the final review, approves, and signs the SAR. SARs must be tasked no later than A-14 to ensure completion NLT A-12. PY contracts may contain a line of funding for SAR development, to be funded from SPM DSA funding. SAR development costs are budgeted and

executed by SPMs and LCMs/PARMs in their DSA budgets. For timing purposes, SARs are budgeted against the lead ship (first ship in the class/type to receive the SHIPALT installation).

6-6.4.4.5 SHIPALT Installation Drawing (SID)
SIDs are described in Section 4 and Appendix A of this manual. SID funding includes the cost of shipchecks and proofing when required. SPMs task the PYs for all SID development, final approval, and signature. Tasking must be done sufficiently early to ensure completion prior to the ship's induction into the installation availability. PY SIDs must be tasked NLT A-12 and delivered NLT A-4 with agreement from the applicable NSA. Although SID tasking is the responsibility of the SPM, SPMs may delegate tasking authority to the LCM/PARM. Budgeting and execution for SIDs is accomplished by the SPM/LCM/PARM, depending on the SHIPALT being installed. Funding documents/amendments are issued for each ship class or ship accordingly. The FMP (DSA) funds all SIDs for Title “K” and “K-P” SHIPALTs and initial SIDs for Title “D” and “F” SHIPALTs. The FLTCINCs/TYCOMs fund all follow-on SIDs for Title “D” and “F” SHIPALTs and may also fund and task the PY for initial SID development of Title “D” SHIPALTs with SPM concurrence.

6-6.4.4.6 Liaison Action Record (LAR)
LARs are described in Section 4 and Appendix A of this manual. LAR tasking, by class or type, is the responsibility of the SPM. SPMs and LCMs/PARMs budget and execute annual requirements for each Planning Yard's LAR requirements.

6-6.4.4.7 Miscellaneous Documentation Support (MDS)
MDS is described in Section 4 of this manual. MDS tasking, by class or type, is the responsibility of the SPM. SPMs and LCMs/PARMs budget and execute annual MDS requirements for each Planning Yard’s MDS requirements.

6-6.4.4.8 Ship Selected Record (SSR) Update
SSRs are described in Section 4 and Appendix C of this manual. SPMs task SSR requirements at the ship/availability level, in SHIPALT Authorization Letters and Technical Instructions (TIs) per Section 4 of this manual. Funding requests must be issued early to have funds in place at the PY NLT A-12. Funding documents are issued for each class or type. SPMs and LCMs/PARMs budget and execute SSRs.

6-6.4.4.9 Configuration Overhaul Planning (COP)
COP is described in Section 8 of this manual. SPMs task COP requirements at the ship/availability level as part of SSR requirements in SHIPALT Authorization Letters and TIs per Section 4 of this manual. Funding requests must be issued early to have funds in place at the PY NLT A-12. SPMs and AIR LCMs/PARMs budget and execute COP requirements.

6-6.4.5 Alteration Installation Team (AIT) and Program Support Management
This component of the FMP is described in Subsection 6-3.3 and Subsection 6-3.4.5. As discussed therein, the correct funding to apply to this component depends upon whether or not HCPM is required.

6-6.4.5.1 AIT Funding for Installation of Title “K” and “K-P” SHIPALTs

The cognizant AIT Manager, in coordination with the SPM, is responsible for developing AIT installation costs, ensuring AIT HCPM and installation funding requirements are budgeted in the correct BLI, are in the proper appropriation (OPN, APN or WPN) and appropriation FY, and ensuring install funds are budgeted to meet HCPM deliveries for installation. The AIT Manager is typically the LCM/PARM or a designated field activity.

6-6.4.5.2 Program Support Line (PSL)

The PSL management component of the FMP is described in Subsection 6-3.3 and contains all non-installation FMP support programs including support of the modernization databases, C&F Studies, Warfighting Improvement Plan (WIP) Development and WIP Engineering (WIPE). The Program Manager of the PSLs/Programs is typically the SPM who is responsible for determining the funding requirements, properly pricing those requirements, and ensuring their inclusion in the budget.

SUBSECTION 6-7 FMP FINANCIAL MANAGEMENT RESPONSIBILITIES OF MAJOR FMP PARTICIPANTS

6-7.1 Scope

This subsection complements Section 2 and Subsection 6-1.4 of this manual by describing in detail the FMP financial management responsibilities and those other responsibilities of the major FMP participants that may have a direct impact upon FMP cost and financial management. Reference S6(b) applies.

6-7.2 Chief of Naval Operations (CNO)

6-7.2.1 Deputy CNO, Resources, Warfare Requirements, & Assessments (N8)

6-7.2.1.1 Programming Division (N80)

- Coordinate development of Navy POM/budget among OPNAV Resource Sponsors
- Balance fiscal and resource constraints during the POM process
- Submits POM to OSD

6-7.2.1.2 Assessments Division (N81)

- Conduct assessments and analysis for overall Military strategy and National Security decisions with CNO (N51)
- Develop IWARs and CPAMs in response to CNO (N51) force planning strategy and policy
- Provide POM guidance based on IWAR/CPAM process

6-7.2.1.3 Fiscal Division (N82)/ASN (FM&C) Director, Office of Budget (FMB)

- Provide Budget guidance to SYSCOMs
- Conduct DON budget reviews for development of OSD/Office of Management and Budget (OMB) and Presidents budget submissions
- Balance fiscal and resource constraints during the budget review process
- Incorporate changes into the budgets driven by Congressional, OSD, and OMB adjustments and guidance
- Approve public sector man-day rates
- Conduct Mid Year Reviews
- Allocate FMP HCPM and installation funds to the SYSCOMs

6-7.2.2 Warfare Division Directors (N42, N75, N76, N77, and N78), and Director of Space and Information Warfare (N6)

- Prepare a coordinated modernization plan and approve all modernization efforts to be performed for surface, service craft, aircraft carriers, and submarine platforms
- Coordinate development of the POM, with the SYSCOMs, in accordance with priorities established by the IWARs/CPAM process and forward to N80 for submission to OSD
- Assign prioritization of FMP ship alterations for installation based upon recommendations and in coordination with the FLTCINCs, TYCOMs, and the SYSCOMs/PEOs.
- Provide Resource Sponsorship and funding resources for FMP HCPM and SHIPALT installation, design and support efforts

- Coordinate within OPNAV the matching and programming of HCPM procurement and installation funds
- Authorize changes in SHIPALT programming and budgeting as required
- Assist with budget development and justification with the SYSCOM FMP participants
- Adjudicate issues of insufficient/excess control value in assigned accounts, when advised by the SPM, LCM/PARM, AIT or Program Support Manager, or SYSCOM Comptroller

6-7.2.3 Director, Supportability, Maintenance and Modernization Division (N43)

- Develop overall ship modernization policy for the U.S. Navy
- Maintain current the official CNO/FLTCINC depot maintenance availability schedule in the FMPMIS database
- Provide Resource Sponsorship for selected PSLs in the FMP (i.e. the modernization databases)
- Co-sponsor, with NAVSEA 04, the FMP Policy Implementation Conferences to identify customer requirements, improve FMP processes and practices, and standardize FMP Policy implementation

6-7.3 Life Cycle Manager (LCM)/Participating Manager (PARM)

- Plan, program**,** budget, and procure all HCPM and all HCPM related requirements
- Coordinate with SPMs and AIT/Program Support Managers to ensure matching of HCPM procurements with installations
- Develop HCPM POM requirements, ensuring ship availability with the SPMs, for submission to OPNAV Program Sponsors
- Develop and prepare all budget exhibits, except for NC50 installation exhibits, for each submission. Coordinate and consolidate SPM NC50 input with HCPM input
- Represent program requirements at budget hearings
- Lead for coordinating responses to HCPM and installation budget questions and justifications requested from OPNAV, OSD, or Comptrollers
- Provide necessary HCPM tasking correspondence to performing activities
- Develop obligation plans for HCPM requirements in response to budget and Midyear Review drills; coordinating and consolidating installation input with SPMs, as required
- Originate HCPM funding requests, in accordance with the approved obligation plans, and forward to the Comptroller organization for approval and signature
- Monitor expenditures of obligated funds, respond to SYSCOM requests for expenditure status, and assist in recovery (rollback) of unexpended funds
- Maintain FMPMIS Material Identification (MTLID) Dictionary current, allowing for lead P-1 calculation for the budget
- Keep current the Procurement Lead Time (PLT) and material cost in the Material Dictionary of the NDE-NM Logistics Application
- Monitor material delivery and maintain current in the NDE-NM Logistics Application the delivery status (Best Estimated Delivery Date (BEDD), Military Standard Requisitioning and Issue Procedures (MILSTRIPs), etc.)
- Notify the SPM whenever substitution of FMP material is being considered/accomplished

6-7.4 Alteration Installation Team (AIT) and Program Support Line (PSL) Manager

- Coordinate matching of planned HCPM procurements with planned AIT installations for budget submission
- Provide AIT installation and design cost requirements, including required ILS, for POM and budget submissions
- Respond to budgetary questions, as applicable, from higher authority
- Coordinate scheduled installations with FLTCINCs/TYCOMs
- Provide necessary tasking correspondence to performing activities
- Develop obligation plans for FMP install requirements in response to budget drills
- Originate installation funding requests, in accordance with the approved obligation plans, and forward to the appropriate SPM for processing in the FMPMIS Execution Module
- Monitor expenditures of obligated funds, respond to SYSCOM requests for expenditure status, and assist in recovery (rollback) of unexpended funds
- Review cost estimates and fixed price offers from Installing Activities

6-7.5 Naval Sea Systems Command (NAVSEA)/Program Executive Officer (PEO)

6-7.5.1 Ship Program Managers (SPM)

- Central technical authority on FMP installation matters for all ship platforms and subplatforms
- Plan, program, and budget all Title “K” and “K-P” SHIPALT installation requirements into the FMPMIS Program Module; including required ILS
- Develop and approve TYCOM funded Title “D” and “F” SHIPALTs and AERs.
- Coordinate with LCMs/PARMs and AIT Managers for budget development, preparation and execution for shipyard and AIT installations for assigned ships
- Issue AP and SHIPALT Authorization Letters and Technical Instructions providing taskings for DSA, AP, and installation requirements
- Review and approve AP and Installation man-day estimates and Incidental Material estimates provided by the Planning Yards, based on tasking from the SPM, for Title “K” and “K-P” SHIPALTs and enter in the NDE-NM Logistics Application.
- Prepare Escrow Changes in the Program Module and the Execution Module (Execution Module for NAVAIR and SPAWAR funds)
- Develop and keep current the AP and DSA algorithms for assigned ships/classes in the FMPMIS Program Module as approved by the OPNAV sponsor. Submit requests to NAVSEA 013 for changes to algorithms
- Enter and update installation budget requirements in the FMPMIS Program Module
- Designate, in writing, individuals authorized to create and approve Escrow Changes, enter and update budget file data, or read only access in the FMPMIS Program Module
- Designate, in writing, individuals authorized to create FMP funding documents or read only access in the FMPMIS Execution Module
- Submit funding documents to NAVSEA Comptroller(s) for review, approval, and signature
- Accept or reject cost estimates (PREs and FREs) and FPOs
- Make recommendations concerning feasibility costs and identify BLI and/or AG/SAG affected prior to authorization of emergent work during execution

- Ensure the Installation Bill of Material (IBOM) indicator estimates are accurate in the NDE-NM Logistics Application
- Participate in FMP scheduling conferences to review status of modernization efforts and participate in the FMP Policy Implementation Conferences held by NAVSEA 04

6-7.5.2 NAVSEA 04 Logistics, Maintenance & Industrial Operations Directorate

- Policy and procedures for the Fleet Modernization Program as approved by CNO (N43)
- Chair FMP Policy Implementation Conferences to identify customer requirements, improve FMP processes and practices, and standardize FMP Policy implementation
- Coordinate with the shipyards to develop public and private sector FMP man-day rates. Forward rates to the Fleet, FMB, NAVSEA 013, NAVSEA 015, and other FMP Customers for budget development
- Prepare, submit, and justify budget for the NDE-NM Logistics Application and FMPMIS database

6-7.5.3 NAVSEA 01 COMPTROLLER DIRECTORATE

- Final approval authority on all Command budget and execution issues
- Provide NAVSEA Comptrollers authority to sign funding documents

6-7.5.4 NAVSEA 013 OPN/WPN/RDT&E COMPTROLLER

- Publish official guidance on all FMP OPN and WPN budget and execution actions/issues. Coordinate with NAVSEA 014 for impact to the O&MN appropriation as required
- Serve as primary point of contact with OPNAV for FMP budget policy, financial and reprogramming matters. Coordinate with NAVSEA 014 for impact to the O&MN appropriation as required
- Perform duties of financial management oversight of the FMP equipment and installation requirements within the OPN and WPN appropriations in accordance with reference S6(b)
- Establish and publish Standard Operating Procedures for FMP financial management
- Issue FMP budget controls for OPN and WPN BLIs
- Coordinate and review budget exhibits, with LCMs/PARMs and SPMs, for the FMP OPN and WPN budgets prior to submission. Ensure exhibit information is accurate and consistent. Submit official budgets to FMB
- Provide DON, OSD and Congressional OPN and WPN budget adjustments/questions to LCMs/PARMs and SPMs for response/reclama coordination. Review, approve and submit final responses
- Establish and update the Chart of Accounts in STARS for execution
- Establish FMP OPN and WPN allocations in STARS and process changes to allocation values
- Enter controls and funding allocations, by RFM, in the FMPMIS Execution Module for OPN and WPN installation accounts ensuring their alignment with STARS
- Review, approve, and sign SPM FMP equipment and installation OPN and WPN funding documents, utilizing the Command's official Financial Management Information System for the equipment funds as well as the FMPMIS Execution Module for installation funds, and issue to performing activities
- Review, approve, and process funding reprogramming actions

- Review and approve all LCM/PARM, SPM and AIT/Program Support Manager OPN and WPN obligation plans
- Monitor obligations and expenditures to ensure optimum utilization of funds and to allow reprogramming of unobligated and unexpended funds prior to appropriation expiration
- Coordinate FMB Midyear Execution Reviews
- Coordinate with NAVSEA 04 in the management of the FMPMIS Program and Execution Modules
- Serve as primary Point of Contact (POC) for duties and decisions related to the Program and Execution Modules. This includes accesses, library updates, control updates, and data file reconciliation
- Review and approve SPM requests for changes to the AP and DSA algorithms to ensure financial validity and approval by OPNAV sponsor
- Coordinate with NAVSEA 04, the Fleet, Shipyard Activities, and FMB to maintain and update the FMP man-day rates in the FMPMIS Program Module
- Participate in the FMP Policy Implementation Conferences held by NAVSEA 04

6-7.5.5 NAVSEA 014 O&MN COMPTROLLER

- Publish official guidance on all O&MN FMP budget and execution actions/issues in coordination with NAVSEA 013, as required
- Provide input to NAVSEA 013, as required, in the establishment and publication of Standard Operating Procedures for FMP financial management
- Issue budget controls for FMP OMN requirements
- Perform duties of financial management oversight of FMP installation requirements within the O&MN appropriation in accordance with reference S6(b)
- Coordinate and review budget exhibits, with the SPM, for the FMP O&MN Modernization Support budget prior to submission. Ensure exhibit information is accurate and consistent. Submit the FMP O&MN budget to FMB
- Forward DON, OSD and Congressional O&MN budget adjustments/questions to NAVSEA SPMs for response/reclama. Review, approve, and consolidate final responses and submit
- Establish and update the Chart of Accounts in STARS for execution
- Establish FMP O&MN allocations in STARS and process changes to allocation values
- Enter controls and funding allocations into STARS
- Review, approve, and sign NAVSEA FMP O&MN installation funding documents, utilizing the FMPMIS Execution Module
- Review, approve, and process funding reprogrammings requested by the SPMs to finance funding adjustments including cost increases, cost growth, emergent work, and proper alignment of controls for budget submission
- Review and approve all SPM obligation plans
- Monitor obligations and expenditures to ensure optimum utilization of funds and to allow reprogramming of unobligated and unexpended funds prior to appropriation expiration.
- Coordinate SPM input to the FMB Midyear Execution Reviews

6-7.5.6 NAVSEA 015 Navy Working Capital Fund Comptroller

- Review and approve NAVSEA 04-developed public sector FMP man-day rates and provide to FMB via the Naval Shipyard budgets

6-7.6 Space and Naval Warfare Systems Command (SPAWAR) and Naval Air Systems Command (NAVAIR)

- Perform duties as financial manager oversight of the FMP equipment and installation requirements, under their cognizance, within the OPN or APN appropriation in accordance with reference S6(b)
- Publish guidance on FMP OPN or APN budget and execution actions/issues in coordination with NAVSEA, as required
- Coordinate and review budget exhibits, with the LCMs/PARMs, prior to submission. Ensure exhibit information is accurate and consistent. Submit official budgets to FMB
- Provide DON, OSD and Congressional OPN and APN budget adjustments/questions to LCMs/PARMs for response/reclama coordination. Review, approve, and submit final responses
- Transfer (by PD) FMP OPN and APN P-1 line installation funding to NAVSEA, for efforts being funded under NAVSEA contract
- Issue FMP budget controls
- Establish all FMP STARS allocations in accordance with the Chart of Accounts, document commitments and obligations, and prepare requests for revisions to STARS as required
- Review, approve, and sign NAVSEA FMP equipment and installation funding documents, utilizing the official System Command Financial Management Information System, for issuance to performing activities
- Review/validate compensation recommended by LCM/PARMs to finance large cost increases and emergent work.
- Process reprogramming actions
- Review and approve LCM/PARM obligation plans
- Monitor obligations and expenditures to ensure optimum utilization of funds and to allow reprogramming of unobligated and unexpended funds prior to appropriation expiration
- Coordinate FMB Midyear Execution Reviews
- Participate in FMP scheduling conferences to review status of modernization efforts and participate in the FMP Policy Implementation Conferences held by NAVSEA 04

6-7.7 Naval Shipyards (NSYs) and Supervisors of Shipbuilding, Conversion and Repair (SUPSHIPs)

- Accomplish FMP install efforts tasked and funded by the SYSCOMs
- Accept, control and expend FMP install funds in accordance with SYSCOM tasking and reference S6(a)
- Monitor expenditures of obligated funds; respond to SYSCOM requests for expenditure status; and, assist in recovery of unexpended funds
- Provide PREs and FREs in accordance with reference S6(g)
- Advise SPM at the first indication that funds in any line of FMP accounting may be insufficient to accomplish tasks assigned. Provide recommended alternative plans of action
- Provide FPOs, when appropriate, in accordance with reference S6(h)

6-7.8 Planning Yards (PYs) (Designated NSYs, SUPSHIPs and Private Contractors)

- Develop AP (including NSA Provided Material) and Installation man-day estimates as tasked

by SPMs
- Execute DSA efforts in accordance with SPM tasking and DSA product/effort milestones per Section 4 of this manual
- Advise SPM at the first indication that funding may be insufficient to accomplish assigned tasking. Provide recommended plans of action

6-7.9 FLTCINCs/TYCOMs

- Participate in the depot level maintenance availability scheduling conferences and provide formal schedule changes to CNO (N43) for approval and entry into the NDE-NM Logistics Application
- Submit recommendations to OPNAV for prioritization of Title “K” and “K-P” SHIPALTs. Prioritize Title “D” and “F” SHIPALTs
- Coordinate scheduling and integration of maintenance and modernization through participation in Work Definition Conferences (WDCs) for the submarine FMP, in Work Package Integration Conferences (WPICs) for the Surface ship FMP, and in Project Review Conference (PRC) for the Carrier FMP. Also develop the SHIPALT and Repair Package (SARP) to facilitate this integration
- Coordinate with AIT Managers the scheduling of FMP installations by AIT and make platforms available in accordance with agreed upon schedules
- Fund installation of Title “D” and “F” SHIPALTs, NAVSEA SPM developed and approved AERs, and all other maintenance efforts for assigned ships.
- Provide tasking and funding to the Planning Yards for development of Title “D” and “F” "follow-on" SIDs. Provide the same for initial SID development for Title “K” and “K-P” SHIPALTS with SPM concurrence. When desired, provide SAR tasking and funding direct to PYs for Title “D” and “F” SHIPALT development
- Fund the FLTCINC share of depot level availability "pro-rated" costs
- Participate in FMP Policy Implementation Conferences held by NAVSEA 04.

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SUBSECTION 7-1 POLICIES

7-1.1 Scope of Section 7

This section of the Fleet Modernization Program (FMP) Management and Operations Manual defines the policies, responsibilities, and procedures associated with the identification, acquisition, procurement, and installation of Ship Alteration (SHIPALT) material.

7-1.2 References for Section 7

The following references are the principal sources of material management information presented in this section:

S7(a) Appendix H, Subj: SAR AML Preparation Guide

S7(b) Appendix A, Subj: NAVSEA Technical Specification 9090-210, Justification/Cost Form (JCF)

S7(c) Appendix A, Subj: NAVSEA Technical Specification 9090-500, SHIPALT Record (SAR)

S7(d) Appendix A, Subj: NAVSEA Technical Specification 9090-600, SHIPALT Installation Drawings

S7(e) NAVSUP Publication 485 Volume III, Subj: MILSTRIP/MILSTRAP

7-1.3 Background for Section 7

The FMP material management process involves specific functions, including:

- Identifying SHIPALT material - Ship Program Manager (SPM)
- Programming SHIPALT installation - Chief of Naval Operations (CNO)
- Collecting, categorizing, and monitoring these SHIPALT material requirements - (SPM)
- Planning, programming, budgeting, procuring SHIPALT material in such a manner as to promote standardization, and reporting material availability status - (CNO/SPM/Type Commander (TYCOM)/material managers).
- Requisitioning, draw down of Naval Inventory Control Point-Mechanicsburg (NAVICP-M)/Defense Logistics Agency (DLA) material, receiving, storing, installing and accounting for SHIPALT material - Naval Supervising Activity (NSA)/Installing Activity (IA).

This subsection of the FMP Manual presents material management procedures that span the entire FMP process. The processes described in the following paragraphs, involve performance of a set of material management functions.

- SHIPALT material identification and timely development of installation schedules are necessary to focus attention on funding and procurement responsibilities. Especially critical to the successful completion of SHIPALT installations is the early identification of special purpose or non-standard Long Lead Time Material (LLTM). The Justification/Cost Form (JCF) material, Ship Alteration Record (SAR) Alteration Material List (AML), and the SAR AML Preparation Guide (reference S7(a)) are the preliminary sources for documenting material and procurement responsibilities. All material required for the SHIPALT installation may not be fully known and documented until completion of SHIPALT Installation Drawings (SIDs) by the Planning Yard (PY).

- Although the processing of material requirements may begin with the JCF or the SAR, material is not authorized for budgeting or procurement (purchase) until the SHIPALT is entered into Navy Data Environment-Navy Modernization (NDE-NM) and programmed for accomplishment.
- Material distribution and installation occur principally during program execution.
- Material required for execution of the FMP is cataloged and managed by various Material Managers (i.e. NAVICP-M and DLA).

Some material may also be centrally managed and procured by a Naval Sea Systems Command (NAVSEA) designated activity on an as-required basis ranging from multi-hull to multi-year procurement. Other SHIPALT material, referred to as NSA Provided Material, may be locally provided or fabricated by the NSA/IA.

7-1.4 Policies

Key material management policies to be used with the FMP are as follows:

- All actions taken to identify and procure material for SHIPALTs shall be designed to promote intra-Navy interoperability as a first priority and to promote standardization as a second priority.
- Standard stock material on the SHIPALT AML will be used where possible. Screening of the Standard Components List (SCL) will be conducted in development of the AML to allow for maximum utilization of standard stock material.
- Headquarters Centrally Provided Material (HCPM) and Centrally Provided Material (CPM) shall be used to the maximum extent practical to facilitate timely delivery of material and/or lower cost per unit. Reference S7(a) will be used to determine the worthiness level of material to be listed in the NDE-NM database.
- Material shall be procured in compliance with all Department of Defense (DoD) procurement and contracting regulations.
- NDE-NM has been designated by CNO as the central repository for all SHIPALT material information. The cognizant SPM will enter accurate material requirements in NDE-NM. Material managers will provide accurate and timely material status information in NDE-NM.
- Material requirements will be identified accurately and in detail as early as possible in the FMP process. These requirements must be formally documented in accordance with references S7(b) through S7(d). Commercial information sources can be valuable tools in the selection of standard components.
- Material will not be budgeted for or procured until the specific Title "K" SHIPALT (including the Title "K-P" SHIPALT after the TYCOM nominates hulls) is programmed for accomplishment by the CNO Platform Sponsors or the Title "D" SHIPALT is programmed by the applicable TYCOM.

Note: This policy is not intended to preclude placing of multi-year contracts or contract options for out year quantities.

- NAVICP-M material for programmed SHIPALTs identified with Purpose Code "T" is protected from general issue by this designation except to satisfy an Issue Group 1/Casualty Report (CASREP) requisition.

- Material will not be pushed (material to be provided without requisitioning action by NSA/IA) to Forces Afloat activities without TYCOM concurrence.
- NDE-NM worthy (See Exhibit S7-1) SHIPALT material (and in the case of submarines, Submarine Maintenance, Engineering, Planning and Procurement (SUBMEPP)) provided LLTM shall be available by the industrial availability start date. If the material is not available, a later material availability milestone must be specifically negotiated by the SPMs with NAVSEA 04 concurrence.
- NSA/IA will notify the SPM of the material availability status of SHIPALT material not received by Start Of Availability (SOA) for Title "K" SHIPALTs and the appropriate TYCOM for Title "D" SHIPALTs.
- Maximum effort to standardize material will be achieved at ship class level. When feasible, standardization will be across ship classes. Material standardization efforts shall be implemented by the following strategies:
  - Procure for all applicable hulls, which are programmed, on a single contract, using multi-year options for out year requirements.
  - Procuring standard equipment
  - Utilizing Federal Acquisition Regulations (FAR) 14-201-8 “Price Related Factors”. Using the best value to the Navy in lieu of the lowest price tends to favor items already supported.
- No Logistically Significant Material (LSM), as defined in this manual's glossary, is to be procured without required support. Specific logistics support requirements and milestones are contained in Section 8 of this manual.
- NAVICP/ DLA ICPs will procure to support programmed NDE-NM requirements. Upon receipt of funded requisitions, Naval Inventory Control Point-Philadelphia (NAVICP-P) will procure material. NAVICP-M does not generate requirements for un-programmed hulls.
- SPMs will ensure draw down of material by NSA/IAs, utilizing NAVICP-M’s non-draw down reports issued at Start of Availability (A) +1.
- NAVICP-M begins the NAVICP-M draw down reporting process at A-6, by reviewing hull NDE-NM reports. A review of the NAVICP-M file is conducted for requisitions submitted for NDE-NM items. If no requisition is identified, correspondence is submitted requesting draw down information. Final draw down reports are completed at A+1. Copies of these reports are submitted to the appropriate SPMs and the installing/material requisitioning activities.
- Material identified by an Engineering Directorate (ED) in the JCF or SAR as anon-deviation item has been deemed necessary to support future design requirements and shall not be substituted. The Hardware Systems Command (HSC) will provide sole source authorization at the time programming is done.
- HSC material managers, NAVICP-M/DLA will keep the NDE-NM Material Dictionary current and up-to-date at all times. A unique stock number will identify material having unique form, fit or function.

SUBSECTION 7-2 MATERIAL DOCUMENTATION IDENTIFICATION

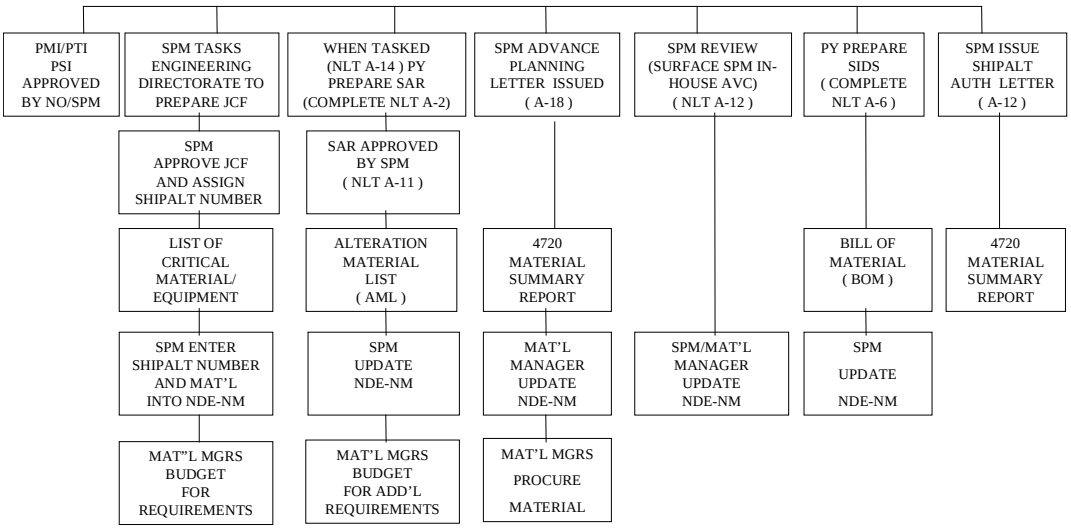
7-2.1 Scope

This subsection addresses the identification of material for a given SHIPALT beginning with the first document describing that SHIPALT. Each successive alteration development document may add to the material identification information.

The procedures for material identification are based on a succession of documents that provide progressively greater detail (see Figure 7-1). This documentation includes:

- Proposed Military Improvement (PMI), Proposed Survivability Improvement (PSI), and Proposed Technical Improvement (PTI)
- FMP Cost & Feasibility (C&F) Study
- Justification/Cost Form (JCF)
- Ship Alteration Record (SAR)
- SHIPALT Installation Drawings (SIDs)
- Advance Planning Letter, including NDE-NM 4720 Report
- SHIPALT Authorization Letter, including NDE-NM 4720 Report
- Ship Alteration and Repair Package (SARP)/Overhaul or Availability Work Package (OWP/AWP)
- Individuals and organizations associated with the design, planning, acquisition and installation of a SHIPALT should be dedicated to achieving standardization.

FIGURE S7-1
SHIPALT MATERIAL REQUIREMENTS DEVELOPMENT



NDE-NM BOM DEVELOPMENT
1. During each phase of SHIPALT development, the NDE-NM SHIPALT BOM is Updated
2. Material/Equipment managers must work closely with the SPMs in order to keep accurate, up-to-date availability information in NDE-NM
3. NDE-NM/SHIPALT BOM updates give the material/equipment managers needed information for budgeting and procuring the required material/equipment

7-2.2 Material Identification Categories

The process of identifying material requirements includes determining the material's category. Material identification categories are based at the level which material is procured and the relative material availability. These attributes are explained in the following subsections**.**

7-2.2.1 Procurement Level

This subsection describes the various levels of procurement authority.

7-2.2.1.1 Headquarters Centrally Provided Material (HCPM)

HCPM is all material procured by a material command and funded separately from the installation cost. HCPM is budgeted, funded and managed by the designated material manager and availability/procurement information is reported via NDE-NM.

7-2.2.1.2 Naval Supervising Activity (NSA) Provided Material

NSA Provided Material consists of all material procured or requisitioned using SHIPALT installation funds. This includes all Inventory Control Point (ICP) material requisitioned via government supply (NAVICP-M /DLA/NAVICP-P, etc.) and any locally procured material not listed on the SAR AML but listed on the installation drawing bill of material. The NSA is responsible for logistics support, including Provisioning Technical Documentation (PTD), for all locally procured standard and non-standard material where it may be required. Material control and management are the responsibility of the NSA.

7-2.2.1.3 Centrally Provided Material (CPM)

CPM is obtained by the NSA/IA from HSC, NAVICP-M, NAVICP-P, DLA, SUBMEPP, In-Service Engineering Agent (ISEA), or PY. Factors considered in designating CPM are technical and quality constraints; logistics support requirements, and criticality of the material. Activities designated to procure CPM will be responsible for the material control and management functions including logistics support as delineated in Subsection 7-2.3.

7-2.2.1.4 Installing Activity Provided Material (IAPM)

Miscellaneous material identified in the SID that is to be provided by the installing activity. It generally does not require logistics support.

7-2.2.1.5 General

All HSC and logistically significant ICP requirements should initially be identified by the SAR AML.

7-2.2.2 Material Availability

7-2.2.2.1 Long Lead Time Material (LLTM)

Material that is identified during the alteration development process and considered (based on judgment and experience, or based on the unique features of the requirement - such as quantity, cost or quality requirements) to have a high probability of taking greater than thirty days, to obtain is categorized as LLTM. The fact that material problems are anticipated dictates identification of this category of material early in the alteration development process. LLTM may be categorized as HCPM, NSA, CPM, or IA. For NDE-NM input purposes the LLTM

definition is Procurement Lead Time (PLT) greater than 30 days. (Ship Availability Planning and Engineering Center (SHAPEC) definition of LLTM is PLT greater than 30 days).

7-2.2.2.2 Short Lead Time Material (SLTM)
FMP material whose procurement lead-time is estimated as thirty days or less is categorized as SLTM.

7-2.3 Material Acquisition Responsibilities
Appropriate acquisition strategies shall be employed by all acquisition activities to achieve intra-class and intra-Navy standardization to the maximum extent possible. (See Section 9 of this manual.)

7-2.3.1 Hardware Systems Commands (HSCs)
HSCs will plan, program, budget for and procure all HSC managed material and associated logistics support when the items are research and development related, of unstable design, or technically complex, and provide delivery status of hardware to support installation planning.

7-2.3.2 Naval Inventory Control Point-Mechanicsburg (NAVICP-M)
NAVICP-M will procure material and associated logistics support when the item is centrally managed at NAVICP-M. If an item requires logistics support other than supply support, technical manuals and Planned Maintenance System (PMS), procurement will be referred back to the HSC.

7-2.3.3 Defense Logistics Agency (DLA)
DLA will procure consumable material assigned to their cognizance. Any material requiring logistics support, other than supply support, technical manuals and PMS, will be referred back to the HSC.

7-2.3.4 Planning Yards (PYs), Submarine Maintenance, Engineering, Planning and Procurement (SUBMEPP) and In-Service Engineering Agents (ISEAs)
These activities will procure material and associated logistics support when directed by the HSC. Items requiring logistics support other than supply support; technical manuals and PMS will be procured by the HSC and not by these activities. Exceptions to this guidance may occur when action is deemed necessary by the SPM and the NSA/IA is separately tasked and funded.

7-2.3.5 Naval Supervising Activity/Installing Activity (NSA/IA)
NSA/IAs will procure incidental material. Material requiring logistics support normally will not be procured by the NSA/IA. However, if such material is locally procured, the NSA/IA should procure/provide/submit appropriate PTD, PMS and Technical Manuals (TMs) to cover supply support for these items.

7-2.3.6 Director, Communications Security Material System (DCMS)
DCMS equipment is delivered to Ship's Communications Material Security custodian 120 days prior to the End Of Availability (EOA) or earlier for availabilities of shorter duration.

7-2.4 Justification/Cost Form (JCF)

JCFs are initiated at the approval of a PMI or a PSI, or as the initial documentation step of a Technical Improvement (TI).

- The JCF is the document used by the Engineering and Platform Directorates to arrive at a management decision of whether or not to proceed with the development of the SHIPALT. This document will define the top-level requirements and anticipated costs for the SHIPALT and serve as the authorization to initiate SAR development. Upon assignment of a SHIPALT number, material requirements will be entered in NDE-NM.
- The JCF identifies material, which requires management attention, has a unique engineering application or requires early procurement to avoid jeopardizing timely completion of the proposed alteration.

7-2.5 SHIPALT Record (SAR)

- Material information in the SAR AML is the culmination of all previous documents (PMI/PSI/PTI, C&F Study, JCF, miscellaneous records and documentation). This material information forms the basis for SHIPALT installation design efforts for preparation of SIDS and consists of the most complete information on which SHIPALT programming decisions can be made.
- Significant material to be removed when the SHIPALT is installed and direction for its disposition will be listed in the SAR.

7-2.6 Advance Planning Letter

The Advance Planning Letter issued by the cognizant SPM will list all Title "K" SHIPALTs planned for installation during a scheduled availability. The latest material projections to support the planned SHIPALT package can be obtained from the NDE-NM TP-05 or Automated NDE-NM 4720 Report (see Section 10 of this manual). The supporting FMP material managers will confirm, via NDE-NM update, within 30 days upon notification of programming, the availability of the material under their cognizance to support the availability schedule and to identify any items that will not be available by SOA or A-2 for submarine Depot Modernization Periods (DMPs). For all material not available at SOA or A-2 for DMPs, a Best Estimated Delivery Date (BEDD) will be provided. The NSA and SPM should evaluate the Required Delivery Date (RDD), assess the impact of the late delivery, and determine what alternatives are available to effectively proceed.

7-2.7 Alteration Drawings

SHIPALT drawings are addressed in Section 4 of this manual. The following subparagraph addresses the material aspects of these drawings**.**

7-2.7.1 SHIPALT Installation Drawings (SIDs)

- SIDs reflect the SHIPALT Bill of Material (BOM) contained in the SAR and tailored to a specific ship within a ship class.
- During preparation of the SIDs and preferably within 30 days after completion of design shipcheck, the PY performs the following in accordance with reference S7(d):
  - Review existing documentation pertaining to the SHIPALT.
  - Recommend and identify material additions, deletions and/or changes to the SAR AML

utilizing a Liaison Action Record (LAR) or a marked-up NDE-NM 4720 Report submitted to the appropriate SPM via a serialized transmittal.
  - For Submarines: The PY identifies material additions and/or deletions to NDE-NM via SHIPALT Material System (SMS) exception reports. Based on this information, the NDE-NM BOM is revised as necessary. Also, SMS Compact Discs (CDs), which contain a complete list of SID material for individual alterations, are provided to installing activities monthly by the PY.
- In addition, the SPM must review all new material information. This review should ensure that:
  - All necessary information to identify equipment required is provided (SID does not identify procurement source code).
  - To help reduce costs to the Navy, every effort shall be made to utilize existing standard stock material. Utilization of Navy supported equipment or components should be considered first. Some tools available are Hull Mechanical and Electrical (HM&E) Equipment Data Research System (HEDRS), and General Distribution Allowance Parts List (GDAPL).
  - SHIPALT material is not duplicated.
  - SHIPALT material listed in the SID BOM contains a recommendation for inclusion in NDE-NM.
  - New material requirements meeting the NDE-NM criteria, as established in Subsection 7-2.9 and Exhibit S7-1, are entered in NDE-NM and any material deletions are made to NDE-NM as appropriate.

7-2.8 SHIPALT Authorization Letter

The SPM SHIPALT Authorization Letter provides procurement and requisitioning instructions or shipping data for material required to accomplish the authorized Title "K" SHIPALTs. The letter includes the NDE-NM 4720 Report or a statement that the NDE-NM 4720 Report is complete and the NSA/IA is authorized to extract it from NDE-NM.

- In most cases, the TYCOMs issue Authorization Letters for Title "D" and "F" SHIPALTs. For submarines, the customer-approved OWP/AWP is the authorization. Material requirement information is provided by the NDE-NM 4720 Report.
- NSA/IAs, at this point, have authorization information with which to proceed with material procurement/requisitioning.

The NDE-NM 4720 Report is structured by SHIPALT number to show:

- The material identification and quantity of each significant item to be provided, requisitioned, or purchased.
- The activity to whom the requisition shall be submitted. If material is to be provided without requisitioning action (i.e., pushed by the material manager to the NSA/IA, rather than being pulled), the NDE-NM 4720 Report will be annotated as such.
- The use of project codes in accordance with Subsection 7-5, pre-assigned requisition number, where provided, and BEDD provided by the material manager.
- Changes to the SHIPALT Authorization Letter shall include material availability information. If a SHIPALT is deferred, cognizant material managers must be advised and disposition instructions for received SHIPALT material must be provided to the NSA/IA. If there are no changes in material status, SHIPALT Authorization Letter changes shall include

a statement to that effect.
- For more information about SHIPALT Authorization Letters see Section 10 of this manual.

7-2.9 Navy Data Environment-Navy Modernization (NDE-NM) Material Information

As a SHIPALT develops, each successive document produces more definitive material requirement information, which will be reflected in NDE-NM. It is NAVSEA policy that the NDE-NM SHIPALT BOM will be maintained up-to-date during the life of the SHIPALT. The SPM has total responsibility for maintenance of this data and no changes will be made without specific approval of the cognizant SPM. A NDE-NM SHIPALT BOM is to be entered/updated when:

- The JCF is signed and a SHIPALT number is assigned.
- The SAR is approved/signed.
- The SPM approves data (additions, changes, and deletions) that has been submitted by PYs with a LAR or a marked-up NDE-NM 4720 Report via serialized transmittal.
- Issuance of SIDs.
- The SPM determines at any time (during the life of the SHIPALT) that significant material changes warrant BOM update.

NDE-NM will not include the following:

- Strategic Systems Programs Alterations (SPALTs) material
- Nuclear propulsion or associated material and nuclear support material
- Material procured by SUBMEPP under their non-standard LLTM program for submarine and SSBN 726 Class system SHIPALTs
- IA Provided Material (IAPM)

Exhibit S7-1 shows the criteria for material entry into NDE-NM. To enter standard/stock numbered SHIPALT material in NDE-NM; the following data elements are mandatory:

- Material Identification (MTLID) (comprised of National Stock Number (NSN), Temporary Navy Item Control Number (TNICN) or nomenclature to uniquely identify an item of material)
- Quantity required per ship (if quantities vary on applicable ships, these differences should be listed).

Mandatory data elements for non-standard or non-stock numbered material requirements are listed in Subsection 7-3.10.4.

7-2.10 Procurement Lead Time (PLT)

PLT is the time, in months, to procure an item of material, beginning with initiation of procurement action and ending with date of delivery. PLT includes administrative processing, production and delivery times. The “P” means 'procurement' because it not only includes “production time”, but also the other facets of equipment procurement. If production lead-time is entered as “PLT” in NDE-NM, it is highly probable that sufficient time will not be reserved for equipment procurement when SHIPALTs are budgeted and, therefore, SHIPALT installations would not be supported**.**

SUBSECTION 7-3 FMP MATERIAL REQUIREMENTS PROCESSING

7-3.1 Background

This subsection details and addresses identification, acquisition and management of material. Once material required for programmed SHIPALTs is identified, acquisition and delivery of material begins with its issue from the supply system and/or depot level repair or through acquisition by the cognizant Navy and/or DLA material managers.

Regardless of alteration type, each material manager must, in conjunction with the SPM, implement similar actions, like the following:

- Identify MTLID and enter data in the NDE-NM Material Dictionary. (Material Manager)
- Verify SHIPALT material requirements and enter SHIPALT BOM in NDE-NM. (SPM)
- Timely programming to support material procurements lead times and budget support No Later Than (NLT) A-24. (SPM/TYCOM)
- Commit existing assets to planned requirements. (Material Manager)
- Monitor material delivery and maintain current status (BEDDs) in NDE-NM. (Material Manager)
- Evaluate material status (BEDDs) to ensure material availability for SHIPALT installation (SPM/TYCOM)
- Provide, in writing, to all concerned, the shipping address, if not identified via the Authorization Letter, of the designated NSA/IA. (SPM)
- Until notified by the SPM, issuance of shipping instructions for Government Furnished Material (GFM) should not be initiated by the Material Manager
- Control and issue material assets (Material Manager)
- Provide guidance for the disposition of any excess HSC material (Material Managers)
- Provide guidance for the disposition of any excess NSA provided material. (SPM/TYCOM)

7-3.2 Title "K", "K-P" and "D" SHIPALTs

This subparagraph describes the various types of SHIPALTS.

7-3.2.1 Cost Reimbursable SHIPALT Materials

A SHIPALT is authorized and funded by the CNO (Title "K" and "K-P") or by the TYCOM (Title "D" and “F”). In both cases, the sponsor reimburses the NSA/IA for parts and labor. The material manager (e.g., NAVICP -P, DLA, and NAVICP-M allocates funds in advance for supportable material by establishing the Navy Planned Program Requirement (PPR) or DLA Special Program Requirement (SPR). The NSA/IA then orders the material from the Federal Supply System (FSS) using funded requisitions.

7-3.2.2 Non-reimbursable SHIPALT Material

Items that are HSC-cognizance (Symbols 2F, 2S, 2Z, etc.) and designated HCPM/LLTM are not cost reimbursable. For such items, the cognizant material managers must budget and procure HCPM/LLTM in support of programmed FMP requirements.

The NSA/IA will either receive "push" material, which is shipped direct to them, or "pull" material, which requires a non-funded requisition.

7-3.3 Private Sector Availabilities

- When SHIPALTs are included as part of a bid package to the private sector (i.e., commercial shipyard), additional material management processing procedures must be followed. These procedures vary based upon contract type, contract agency, additional requirements such as staging of the SHIPALT material, contract office location (central or field activity) and the ship class.
- Assigned planning activities (i.e. planning Supervisor of Shipbuilding, Conversion and Repair (SUPSHIP)) review the total material requirements and prepare the bid packages.
- Under fixed-price type contracts, the planning activity establishes what will be GFM and what will be Contractor Furnished Material (CFM) prior to contract solicitation. Under cost-type contracts, negotiations enter into determination of material responsibility.
- Subsequent to the award, the NSA/IA or SUPSHIP tracks material information via NDE-NM and advises the contractor of GFM status. SUPSHIPs have limited storage facilities, thus, particular attention must be paid to destination addresses and RDD of shipments.
- The planning activity will not change HCPM or CPM from GFM to CFM once programmed in NDE-NM.

7-3.4 Hardware Systems Command (HSC) Processing of FMP SHIPALT Equipment

HSC material managers will review the status of SHIPALT material requirements in NDE-NM for accuracy and validity and will update accordingly. Material managers will accept SHIPALT material requirements for SHIPALTs programmed in the FMP as firm requirements against planned delivery dates. Determination of whether the material requirements will be satisfied from current assets (on hand, under procurement, due from repair) or special procurement will be made by the material manager, subject to budget constraints.

If there is a problem in allocating assets for a hull in a given Fiscal Year (FY), the material managers enter the last two digits of the 9999 codes (see Exhibit S7-2) in the Best Estimated Delivery Date Remarks (BEDDRMKS) field of NDE-NM. In order for the material manager to provide accurate availability status, resolution of these problems, by the SPM, should be accomplished as soon as possible. Upon completion of appropriate action by the SPM and/or material manager, these codes should be removed from NDE-NM by the material managers. The 9999-09, 10, 13, 16, 18, 19 and 20 codes will remain in NDE-NM until the SHIPALT is reported complete. For Alteration Installation Team (AIT) installations, the material manager enters a "10" to identify "Material provided by AIT" and "18" for "Material installed by AIT". A detailed description of SHIPALTs being installed by AITs can be found in Section 9 of this manual.

7-3.5 Material Requirements Planning Naval Sea Systems Command (NAVSEA) Managed 2F, 2J, 2S and Space and Naval Warfare Systems Command (SPAWAR) Managed 2Z and 4M Cognizance Material)

7-3.5.1 Material Management

Based on programmed SHIPALTs, material/program managers will plan, program, budget, procure, control, and distribute material under their cognizance to meet material requirements. HSC material managers will provide, enter and maintain availability data in NDE-NM for programmed SHIPALTs only NLT A-24. It is necessary for material managers to work closely with the SPM to ensure that NDE-NM accurately indicates the ability or inability to fill

programmed SHIPALT requirements by the required delivery date.

All field activities should require mandatory use of NDE-NM and draw down procedures for FMP material. NSA/IAs are directed to requisition (draw down) NDE-NM identified ICP material. When the NSA/IA elects not to draw down material reflected in NDE-NM, prior to A-9, notify the SPM of items not being drawn down along with reasons for non-draw down (i.e. rolled over, shop stores, locally procuring, etc.).

7-3.5.2 Spaces and Naval Warfare Systems Command (SPAWAR)
SPAWAR will ship and control 2Z and 7G-cognizance material in support of SPAWAR SHIPALT installations. No requisitioning action is required by the NSA/IA and/or end item user for programmed requirements.

7-3.5.3 NDE-NM 4720 Report
When the NDE-NM 4720 Report or TP-05 Report displays a contract number and a Military Standard Requisitioning and Issue Procedure (MILSTRIP) document number, material will be shipped direct (pushed) from the contract, and no requisitioning action is required by the NSA/IA. The Material Inspection and Receiving Report (DD-250) and the shipping containers will include the MILSTRIP document number.

7-3.5.4 Emergent Requirements
A requirement to accomplish a SHIPALT, which arises after promulgation of the CNO Shipsheet, is considered an emergent requirement and requires an approved serialized escrow change from CNO. Any changes recommended after promulgation of the CNO Shipsheet should be thoroughly studied to ensure that material is available, feasibility has been established, and any interface problems with other ship systems have been identified and resolved. In most cases, sponsors of the emergent SHIPALT will be required to identify appropriate FMP compensation, material source and diversion authority if required.

7-3.5.5 Non-Designated Availability Site
When the availability site has not been determined, the material manager will inform the manufacturer or supply depot to hold shipment in abeyance until a destination has been determined by the SPM.

7-3.5.6 Change in Availability Site
When the designated availability site is changed, the original availability site will:

- Ship all material received for that availability to the new availability site along with copies of all DD-250's.
- Advise the new availability site, the material manager, and the cognizant SPM of the shipping data for the above material (i.e. Government Bill of Lading (GBL), Transportation Account Code (TAC) number, requisition number, Mode of Shipment used, point of contact, telephone number, etc.).
- Provide the new availability site with a listing of all material required by SHIPALT number, annotated to indicate shipping data for items shipped by the old availability site, and the latest requisition status of material not yet received by the old availability site.
- Advise cognizant material managers of requisitions for material not yet received and request

shipment to the new availability site with a listing of all material required by SHIPALT number annotated to indicate shipping data or latest requisition status.

7-3.6 Material Requisitions: Naval Air Systems Command (NAVAIR) Managed 2Q, 2V, 2W, and 8M Cognizance Material

NAVAIR will review FMP material requirements in NDE-NM and enter BEDDs for equipment under their cognizance. Non-funded requisitions should be submitted to NAVAIR in accordance with the instructions on the NDE-NM 4720 Report.

7-3.7 Material Requisitions: Director, Communications Security Material System (DCMS) (T63) Managed 2L Cognizance Material

No material will be requisitioned directly from DCMS (T63). Requisitions should be forwarded to N35 for manual material directive initiation to DCMS. All DCMS (T63) SHIPALT material to be installed will be shipped direct to the ships Communications Security Material custodian to arrive 120 days prior to the end of the availability or at a suitable date to support availabilities of shorter durations.

7-3.8 Material Requisitions: Defense Supply Center Philadelphia (DSCP) Managed 9D and 9L Cognizance Material

9D Cog clothing and textiles items and 9L Cog medical and non-medical items under DSCP management cannot be processed through the Program Requirements Interface System Module (PRISM). NSA/IAs should submit requisitions as early as possible for these requirements. Supply support will be based on requisition status.

7-3.9 Material Requirements for 9E, 9F, 9I, 9J, 9Q, 9W, and 9Y Cognizance Material

- Army Troop Support and Aviation (9E)
- Warner Robins Air Logistics Center (9F)
- Ogden Air Logistics Center (9I)
- Oklahoma Air Logistics Center (9J)
- General Services Administration (9Q)
- Army Troop Support and Aviation Material Readiness Command (9W) and
- Army Electronics Command (9Y) managed material

Requisitions should be submitted to these activities in accordance with instructions on the NDE-NM 4720 Report.

7-3.10 Material Requisitions: Naval Inventory Control Point-Mechanicsburg (NAVICP-M) and Planned Program Requirements (PPRs)

SPMs should closely monitor requisition status and initiate work around procedures or alternate material sources as necessary to ensure support.

7-3.10.1 Identification of PPRs

- Material requirements are passed electronically to NAVICP-M approximately every two weeks through the use of an NDE-NM/PRISM interface. This process takes material requirements from Hull BOMs for scheduled/programmed/budgeted alterations, and passes them to NAVICP-M/DLA for material support analysis.

- For DLA material, SPRs are forwarded by NAVICP-M to the appropriate DLA ICP. (See Subsection 7-3.11.)
- The NDE-NM material requirements for NAVICP-M-cognizance material are evaluated on an individual basis against system assets of TNICNs/NSNs. PRISM establishes PPRs for NAVICP-M-cognizance material based on requirements in NDE-NM. A NDE-NM programmed requirement will be accepted for support at NAVICP-M if the overhaul/availability start date falls beyond the PLT period. If the overhaul/availability start date falls within the PLT period, the requirement will not be accepted for support unless there are sufficient on-hand or due-in assets to support the requirement in addition to normal fleet demand and other previously established programmed requirements. For rejected requirements (indicated by a "Reject PLT" in the PPR RESPONSE field), a funded requisition should be immediately submitted by the NSA to NAVICP-M to initiate supply support. (For PPR Rejects, see Exhibit S7-3.)
- For requirements, which are accepted, and PPRs established material is acquired using the Navy Working Capital Fund (NWCF). This material is then provided to NSA/IA upon submission of a funded requisition.

NSA/IAs should closely monitor requisition status and initiate work around procedures or alternate material sources as necessary to ensure support.

7-3.10.2 NAVICP-M Processing Requirements

- NAVICP-M is the Program Support ICP for the SPMs and is responsible for the following procedures:
- The first time a programmed requirement is received at NAVICP-M, "PPR LOADED" will appear in the PPR RESPONSE field of NDE-NM. If the requirement was rejected, an explanation is provided in NDE-NM in the PPR RESPONSE field for NAVICP-M items and in the SPR RESPONSE field for DLA items.
- For DLA-managed items, forward FMP requirements to the cognizant DSC in the form of SPRs.
- Provide material availability information to NAVSEA via NDE-NM. For all valid requirements, the BEDD will be computed by NAVICP-M for each NDE-NM system maintenance interface cycle. Purpose Code "T" protection occurs between A-1 and A-20, reserving material for SHIPALT requisition issue. Purpose Code protection is established to coincide with average requisitioning time frames. Purpose Code protection will move with an accelerated start date unless inside A-3 at which time a requisition should have been dropped to draw down material. Purpose Code "T" protection does not guarantee reservation of material at the ship level but reserves for general SHIPALT requisition issue. Purpose Code "T" protection is not applicable to DLA material. The following BEDD coding system is provided in the RSVN CODE field in NDE-NM to provide an in-depth analysis of what the BEDD is based on:
  - "T" - Sufficient assets are on hand in Purpose Code "T" to cover the requirement. The BEDD quantity is computed to be available by the availability start date.
  - "A" - Sufficient non-Purpose Code "T" assets are on hand to cover the requirement. The BEDD quantity is computed to be available by the availability start date.
  - "C" - Insufficient assets are on hand to cover the requirement. The requirement is covered by a firm procurement with the procurement delivery date, equal to or earlier

than the PPR availability start date. The BEDD quantity is computed to be **available** and is shown as the contract delivery date.
  - "D" - Insufficient assets are on hand to cover the requirement. The requirement is covered by a firm procurement, but the delivery date is past the availability start date. The BEDD quantity is computed as not available and is shown as the delivery date.
  - "P" - Insufficient assets are on hand, but the requirement's availability start date exceeds the PLT. The BEDD quantity is computed to be available by the availability start date.
  - "R" - Insufficient assets are on hand to cover the requirements. The requirement is in the Procurement Request (PR) stage.
  - "Blank" - Insufficient assets on hand or under firm contract to cover the requirement and PLT exceeds the availability start date. The BEDD quantity is computed to be not available by the availability start date.
- Ensure protection of material for FMP requirements by use of Purpose Code "T" until A-90 days
- Update lead-time, unit cost, unit of issue, and Allowance Parts List (APL) number for NAVICP-M material

7-3.10.2.1 500/600 Series Project Code

The 500 and 600 Series Project Codes are assigned by the requisitioning activity and monitored by NAVICP-M, Code 05633. This series is used for requisitioning material required for industrial ship availabilities including ship overhauls. This project code is used to improve management of material assets. It further relates an industrial requisition to a hull, yard, start date and type of material. The following is the correct use of the 500/600 Series Project Code when requisitioning NDE-NM/SHIPALT material from NAVICP-M and DLA activities.

- First Digit: "5 or 6" - Identifies requirement as being from an industrial customer. Both numbers can be assigned as required by the ordering activity.
- Second Digit: Alpha/numeric - Assigned by the ordering activity (at about A-24), or when known, to specify an industrial hull for a specific timeframe.
- Third Digit: "S" for SHIPALT requirements programmed in NDE-NM.

(First and second digit assignments and updates should be sent to NAVICP-M (Code 05633) by message, letter or email, annotated by hull number, fiscal year, overhaul start date and overhaul end date by each activity ordering SHIPALT material.)

These procedures should be utilized when ordering material for NDE-NM SHIPALT requirements. Proper use of project codes when requisitioning will result in expedited issue of material and identification of SHIPALT requirements for draw down tracking purposes.

7-3.10.2.2 Demand Code

The use of Non-recurring Demand Code "P" enables the ICP to identify a requisition for NDE-NM material, known to have been acquired by the ICP in anticipation of such demand.

Use of Non-recurring Demand Code "P" prevents a NDE-NM requisition from creating a separate recurring demand, which would result in stock being procured twice for the same requirement, once for the forecast and once for the requisition.

7-3.10.3 PPR Non-Drawdown

NAVICP-M expects draw down of forecasted material between A-12 and A-1. To ensure the requisition buy-out coincides with the PPR RDD, it is recommended that requisitions be submitted by the A-1 time period. In order to fully utilize the resources available through the Navy Supply System and to ensure proper Configuration Management (CM) and control of installed equipment, all material requirements will be forwarded to the designated source of supply (stock point or ICP) unless emergency or local purchase is authorized. Failure to utilize material programmed in NDE-NM and specifically bought to support scheduled alterations leads to long supply/excess material and will negatively impact NAVICP-M's ability to acquire budget authorization to support future SHIPALT requirements. NSA/IAs will advise SPMs or TYCOMs of material that will not be drawn down upon receipt of the planning/authorization letters so that NDE-NM forecasting can be corrected. NAVICP-M will develop non-draw down statistics at the A-0 SOA time frame. Any material not drawn down from the supply system for authorized SHIPALTs will be annotated. Requisitioning activities will respond to NAVICP-M's inquiries. Inquiries concerning Title "D" SHIPALTs will be addressed to TYCOMs and Title "K" and "K-P" SHIPALTs to the SPMs.

7-3.10.4 NAVICP-M Processing of Non-Standard Material Requirements in NDE-NM

7-3.10.4.1 Temporary Tracking Material Identification (TTMID) Numbers

- When NDE-NM requirements for non-NSN material exist (material not support by the FSS), TTMID numbers are assigned by NDE-NM for the SPM to permit entry for potential NAVICP-M/DLA cog items. The TTMID numbers replace the NDE-NM assigned numbers formerly used for NAVICP-M/DLA cogniance material only. This number consists of "HH" in the cognizance field, specific user ID, date entered, and an unique, sequentially assigned number. NDE-NM will prompt the user for the following amplifying information:
- Unit of Issue
- Material Description
- Material Characteristics Description
- Manufacturers Drawing Number
- Manufacturer Model Number
- Military Specification (MILSPEC) Number

Unit of issue, material description and material characteristics description are mandatory entries, however, all available information, including the submitters name and phone number will promote the optimum response and enable two way dialog for the cataloger in communicating with the submitter. The SPM comments field can be use to provide additional information if needed.

7-3.10.4.2 Non-Standard Programmed Requirements

If a non-standard programmed requirement is received at NAVICP-M and assigned NAVICP-M cognizance for development of support, in a time frame less than 24 months (includes 15 months PLT plus 9 months administrative lead time), NAVICP-M will notify the SPM that the requirement cannot be accepted and will provide a date when support can be expected.

When requesting NAVICP-M support for non-NSN material requirements, consideration should

be given to the foregoing conditions and priorities. A safe rule of thumb is to provide for an alternate source of supply when a required item will be needed in less than 24 months.

7-3.10.4.3 Standard Stock Numbers

Standard stock numbered items which are NAVICP-M/DLA cognizance and not found in the NDE-NM Dictionary, can be entered in NDE-NM by the SPMs. This MTLID will exist only on the Ship Bill of Material (SBM). When the SHIPALT is programmed, the SBM requirement will be sent to NAVICP-M via the PRISM interface file. If the NSN/TNICN is not valid, the requirement will be rejected and "REJECT NSN" will appear in the MILSTRIP field of NDE-NM. This will inform the SPMs that the MTLID is not valid and a new MTLID must be entered. If NAVICP-M accepts the entry as valid, a record will be created for the MTLID in the NDE-NM material dictionary.

7-3.10.5 Programming Validations

This subsection addresses the requirement for ICPs to validate requirements forwarded by the NDE-NM interface. The DoD Material Management Regulation (DoD 4140.1-R) establishes the responsibility for the DoD component receiving SPRs to ensure that investment in inventory to support SPRs is kept to a minimum. All ICPs, recognizing how volatile the defense budget and modernization priorities are, require validations of the PPRs and SPRs (forecast reservation documents) at various times. SPM and TYCOM cooperation and timeliness of response are of critical importance. Responses to requests for validation should be made as soon as possible (optimum response - within 10 days of receipt of the request) and in the same format as received. The NAVICP-M SHIPALT Office is the coordinator between the SPMs and DLA Centers for all forecast validations. The following paragraphs discuss the most common validations.

7-3.10.5.1 Validation Requests from NAVICP-M for NAVICP-M Managed Material PPRs

This subsection describes those validations that are unique to NAVICP-M management material.

7-3.10.5.1.1 Add/Delete Validations:

- **Adds:**
  - Driven by additions to the NDE-NM programming, resulting in additional PPRs in NAVICP-Ms files.
  - Requirements were not previously known, but will affect supply support calculations and budget submissions in the future.
- **Deletes:**
  - Driven by deletions from the previous forecast.
  - Budgetary considerations for projected sales that will not occur. After re-calculating the ICP's requirements, Item Managers will need to recommend procurement cancellations or revisions to delivery schedules.

7-3.10.5.1.2 NAVICP-M Supply Demand Review (SDR) High Dollar Validations:

- Existing or new PPRs that have moved into the procurement window.
- Item Manager requests validation prior to initiating the procurement and/or prior to contract award.
- Required for those procurements of $100K and over.
- The total procurement quantity is validated - irrespective of the dollar value of a particular

PPR or the program represented.
- Non-response to the validation will result in the elimination of the PPR from the projected or final procurement.

7-3.10.5.2 Validation Requests from DLA to NAVSEA for DLA Managed Material
This subsection describes those validations that are unique to DLA management material.

7-3.10.5.2.1 SPR "PB" Response Code Validations - DLA Point of Entry:
- Requirements that are greater than 10 times the total DLA quarterly forecast demand (worldwide)
- These SPRs are NOT accepted prior to validation
- Non-response to the validation request will result in the rejection of the proposed SPR

7-3.10.5.2.2 High-Dollar Procurement Validations:
- Any one SPR document that will cost DLA more than $10,000 to support. (When DLA determines a Service program is viable and requisitions 90% or more of the forecast quantity, the dollar threshold can be raised).
- DLA requires its Centers to contact the forecaster to confirm, or validate high-cost SPRs.
- When a FMP Manager is contacted to validate a High-Cost SPR, the manager is expected to verify the SPR quantity and support date. In the event the SPR quantity needs to be increased, decreased, or canceled, or if there are changes in the Support Date, the manager is expected to coordinate the response with the NAVICP-M SHIPALT Office.
- Processing of the proposed procurement will be suspended until the NAVICP-M SHIPALT Office responds to the Validation Request.

7-3.11 Material Requisitions: Defense Logistics Agency (DLA) and Special Program Requirements (SPRs)

7-3.11.1 DLA Processing Procedures (9C/3C, 9G/3G, 9N/3N and 9Z/3Z Cogs)
- FMP material requirements for items under the cognizance of the DLA are transmitted via the SPR process. DLA maintains an automated procedure for supporting the FMP in which requested material is screened to give reasonable assurance that it will be available when needed.
- DLA Policy for managing SPRs requires the following:
  - Submission of forecast for SPRs to DSCs shall be made as far in advance of the support date as possible but not in excess of 3 years. SPRs will be rejected if the support date is within 90 days or greater than 3 years from the submission date.
  - Material on hand will not be identified, reserved, or protected by DLA for SPRs in anticipation of requisitions from the NSA/IA. However, accepted SPR quantities will be included in item requirement's computations and procurements, thereby providing a reasonable assurance of supply availability by the support date indicated in the SPR forecast.
  - DSCs will accept SPRs and initiate procurement in support of forecasts without requiring supporting requisitions in advance, provided the SPR does not exceed specific limitations prescribed by DLA. When an SPR submission exceeds the limits established, the forecasting activity will be advised that an advanced-funded requisition is required to be

submitted no later than a specified lead time in advance of the support date.

- DSCs will retain SPR requests until one of the following conditions occurs:
  - One procurement lead time/assembly time prior to the support date (availability start date) (in those instances when DLA has advised that procurement and/or assembly is required) has been reached in support of those requirements for which SPR Status Code "PB" was furnished.
  - The support date for SPR has elapsed.
- For DLA requisitioning procedures, refer to Subsection 7-5.1.5 or reference S7(e).
- The Program Support ICP (NAVICP-M) is responsible for the currency and accuracy of assigned material data fields in NDE-NM.

7-3.11.2 SPR Processing Procedures

7-3.11.2.1 DSC Response to SPR Forecasts

The applicable DSC evaluates the SPR being forecast to determine its acceptability. In accomplishing this evaluation, the size of the forecast quantity relative to the normal demand, the dollar value, the supply status of the item, funding capability of the DSC, accuracy of past forecasts, and the degree of assurance that requisitions will follow are considered.

After receipt of the SPR forecast, the applicable DSC transmits a SPR response with status code, Document Identifier "DYK", or an administrative SPR rejection “DZG” to NAVICP-M. The SPR response is then transmitted by NAVICP-M to the appropriate SPM indicating acceptance or rejection of the SPR. (Response codes applicable to acceptance/rejection are listed in Exhibit S7-4.) Where appropriate, the number of days representing procurement lead-time and/or time required for assembly is provided in the SPR response. NAVICP-M converts the number of days to months and NDE-NM displays this information in the “ACQ NUM” field. The appropriate response code is input into the “SPR RESPONSE” field.

7-3.11.2.2 Rejection of SPR Transactions

DSCs edit SPR transactions for valid entries in each before processing against the inventory records. Errors, which cannot be corrected by the DSC, are transmitted, via the “DZG” document to the submitter for correction and resubmission. Exhibit S7-5 contains the Reject Advice Codes. NAVICP-M will validate data in the rejected transaction, make necessary corrections, and resubmit the SPR. NAVICP-M will initiate required corrections to the NDE-NM database.

7-3.11.2.3 Follow-up on SPR Forecasts

NAVICP-M will automatically originate required SPR follow-up documents should DSCs fail to provide status of response (DYK) or rejection (DZG) to a new or follow-up SPR request.

7-3.11.2.4 Changing SPRs

Changes in the SPR quantity, supplementary address, project code, cost designator, and/or support date received by NAVICP-M from the appropriate SPM in NDE-NM will be forwarded by NAVICP-M to the cognizant DSC. Changes to other data elements will require cancellation of the original SPR and submission of a new SPR by NAVICP-M.

7-3.11.2.5 Cancellation of SPR Requests

NAVICP-M will submit an SPR cancellation for a previously submitted SPR request if the requirement is deleted in NDE-NM. The applicable DSC will respond to a request for cancellation with response Code "PD".

7-3.11.2.6 SPR Confirmation Procedures

Confirmation is required whenever the value of an SPR is greater than $10,000 per line item or, for high demand value items, where the SPR quantity exceeds the DLA Quarterly Forecast Demand (QFD). The cognizant DSC may request confirmation of the requirement from the forecasting activity (the appropriate SPM) via NAVICP-M. Requests for confirmation to forecasting activities normally are made by correspondence or telephone 90 days prior to initiating procurement. The appropriate SPM must respond to confirmation requests within 75 days or the SPR will be canceled.

7-3.11.2.7 Advance Requisitioning of SPR Material

When the response to an SPR forecast is coded PB, PC, PM, PQ, or PX, a draw down requisition must be forwarded to the cognizant DSC earlier than normally required. In the case of response code PB the number of days in advance of the normal submission date will be specified in record positions 62-64 of the SPR response forwarded to NAVICP-M. NAVICP-M will convert the number of days to months and provide the information by NDE-NM. This information will appear in NDE-NM in the “ACQ NUM” field (e.g. PB13).

When the SPR response code indicates that advance requisitioning is necessary the SPM will review the requirement. When verified, the SPM will direct the NSA/IA to submit a funded requisition. The SPM must advise the procuring activity to use 500/600 Series Project Codes applicable to the requirement, the SPR response code, and (when specified in the SPR response) the number of months by which submission should be advanced. If submission will be required prior to issuance of the SHIPALT Authorization Letter, the SPM also will provide the NSA/IA with funding (normally advance planning FMP for SUPSHIP/Ship Repair Facilities (SRFs).

- NSA/IAs will prepare and submit requisitions to the special instructions cited below (depending on the SPR response code applicable):
  - **SPR Response Code PB**
    - Enter Media and Status Code “S” in record position 7 to indicate whether status should be provided by electronic methods
    - Enter Demand Code "P" in record position 44
    - Enter the Unit Identification Code (UIC) of the NSA/IA in record positions 45-50 and the Signal Code in accordance with local procedures for record position 51
    - Enter the letter "S" in record position 62 and the number of months after the requisition date when delivery is desired in record positions 63 and 64
    - Enter Advice Code 2L in record positions 65 and 66

7-3.12 Material Requisitions: Naval Inventory Control Point-Philadelphia (NAVICP-P) Managed Items

FMP material requirements for NAVICP-P are passed to NAVICP-M via the NDE-NM/PRISM Interface. NAVICP-M will update the data with current costs, and pass the requirements to NAVICP-P.

7-3.13 Excess Material, Disposition and Defense Logistics Agency's (DLA) Supply Discrepancy Reports (SDRs)

This subparagraph describes procedures to be followed for disposition of material removed during SHIPALT installation, guidance on excess material and processing of Supply Discrepancy Reports (SDRs) to DLA.

7-3.13.1 Disposition Instructions for Removed Equipment and Material

When equipment or material is to be removed as a result of completing a SHIPALT, the SPM should identify SHIPALT removal equipment on the SAR. (This information should be provided by cognizant material managers in their review of the SARs and provided to the applicable SPM in the form of disposition instructions).

7-3.13.2 Excess Material

In some situations, FMP material may have been provided either centrally or locally but not used in SHIPALT accomplishment. For material that is not designated for turn-in/disposition, local supply system Excess Material procedures govern its disposal. For any significant dollar value or quantity of unused FMP material (either locally or centrally provided), consult the material manager for advice before proceeding with material excessing. Refer to DoD Directive 4100.37D for further guidance. For excess Surface Ship non-standard material, contact Ready Resource Material Program (RRMP) managed by SUPSHIP Newport News, Code 1831. East Coast Point of Contact: (757) 688-8181. West Coast Point of Contact (253) 931-7660.

7-3.13.3 DLA Supply Discrepancy Reports (SDRs)

SDRs are prepared by the activity receiving DLA managed material. SDRs provide notification to the DSC and/or Defense Distribution Depot that the material received varies in the quantity or condition from that shown on the shipping document. In addition, SDRs document deficiencies in packaging/markings that caused material to be vulnerable to loss or damage.

DLA accepts SDRs regardless of dollar value or shipper for DLA managed items. SDRs may be submitted by mail, telephone, electronic mail and messages for DLA managed material shipped from Defense Distribution Depots and DLA contractors/vendors.

SDR responses can provide for reshipment of material, versus a financial credit. The submitter must request reshipment on the SDR. Defense Distribution Depots will reship material consistent with the original mode of shipment and availability of the material.

To expedite processing and avoid rejection, SDR submissions must contain all required data. In addition, a point of contact, telephone number, fax number (including Commercial and DSN) and email address should be provided to assist in timely resolution. If submitter is requesting reshipment, provide the appropriate shipping activity via fax with your request on the cover sheet to reship and include a good shipping address (i.e., building number, street name, etc.).

SDRs involving shortages, overages, wrong items, misdirected shipments and packaging deficiencies will be forwarded to the shipping depot. All other Discrepancy Reports will be forwarded to the responsible DSC.

Additional information and instructions for processing SDRs are outlined in the Defense Logistics Support Command (Defense Logistics Agency) Customer Assistance Handbook. The handbook is available on the DLA web at http://www.supply.dla.mil/CustomerHandbook/index.htm.

SUBSECTION 7-4 NDE-NM MATERIAL MANAGEMENT REPORTS IN SUPPORT OF FMP MATERIAL MANAGEMENT

7-4.1 Background

This subsection details the use of the various material related NDE-NM files and queries used in material management. Users of NDE-NM have the capability to call out material-related information found in NDE-NM files in a variety of ways, including material data by SHIPALT for all ships, for a single ship, for a single year, or for the material required for a particular SHIPALT.

NDE-NM information may be acquired by accessing the NDE-NM Logistics Module Teleprocessed Reports (TPs) and by use of the NDE-NM AD HOC report generation capability.

7-4.2 NDE-NM TP Reports

The following TPs are available to those with NDE-NM access:

TP-01 **AVAILABILITIES REPORT** - Schedule of availabilities for any one ship, class of ships or type of ships, during the time period of one availability or all availabilities

TP-02 **HULL CONSTANT REPORT** - Selected hull associated data for a specific ship.

TP-03 **SHIPALT MASTER BY ALTERATION** - Status of any selected alteration on the hull or all ships for which the selected alteration is applicable.

TP-04 **MINI-FMP REPORT FOR A SHIP** - Current mini-Amalgamated Military/Technical (AMT), a specified hull in a specified FY programmed, or range of FYs, or list of un-programmed or completed SHIPALTs on a specific hull.

TP-05 **MINI-MATERIAL SUPPLEMENT** - Material status including MILSTRIP or Acquisition Numbers, for each item of required material for a particular SHIPALT programmed or un-programmed on a specific hull, in a specified FY or a range of FYs.

TP-06 **EQUIPMENT MASTER BY HULL** - Displays the status of a selected material item of material for all ships or specific type and class; type and fleet; type, class and fleet; or a specific fleet.

TP-06A **BILL OF MATERIALS LISTING** - Displays material requirements listed in the SAR for accomplishment of a particular SHIPALT or to display the specific material requirements for one or all ships.

TP-06C **GENERIC ALT BILL OF MATERIAL** - Displays the overall material requirements for an alteration for a class of ships.

TP-10 **ALTERATION PRIORITY REPORT -** Displays the priority of each alteration and it's cost and status for a Class.

TP-10A **DETAIL MIP/TIP PRIORITY REPORT-Amalgamated Military Improvement**

Plan/Technical Improvement Plan (AMT) - This report is available in detail and summary forms. The detail report displays the status of AMT alterations for all of the ships in the Class. The summary report totals the number of alterations for the Class.

TP-11 **FMP WORKSHEETS -** Displays all or specific types of programmed alterations for a class of ships or a specific ship sorted by Alteration Number or priority for a specified fiscal year of overhaul.

TP-14 **INACTIVE AVAIL W/PROG ALTS -** Displays the alterations that are programmed against Inactive or Dead Availabilities

TP -15 **AIT INSTALLATION -** Provides a list of AIT alterations scheduled for a ship or a fiscal year.

TP - 16 **RAPID ALTERATION REQUEST -** Tracks the status of approved, disapproved and under review Proposed Alterations.

Numerous other special-purpose, material related reports are being developed on a continuing basis as the need for such reports is identified. A complete list of available reports may be found in the NDE-NM Master Menu and its sub-menus. NAVSEA 04M, the NDE-NM Program Office, may be contacted to address any questions regarding NDE-NM programs, and "special reports" not found on the NDE-NM Menu screens.

SUBSECTION 7-5 NAVAL SUPERVISING ACTIVITY (NSA)/INSTALLING ACTIVITY (IA) REQUISITIONING

7-5.1 Requisitioning

This subsection addresses the requisitioning of material by NSAs and IAs in support of Fleet Modernization (FLTMOD).

7-5.1.1 General Requisitioning Information

The NSA/IA will requisition FMP material in accordance with instructions contained in the SHIPALT Authorization Letter for individual availabilities. The NDE-NM 4720 Report will specify:

- The identification of and quantity of items to be requisitioned
- The activity to whom the requisition should be submitted
- The use of 500/600 Series Project Codes, if this manual is not referenced in letter
- For Aircraft Carriers, the NSA/IA will requisition FMP material in accordance with instructions contained in the Advance Planning Task Letter or Aircraft Carrier Material Procurement Task Letter.

7-5.1.2 Requisitioning NAVSEA Managed Material

- The NSA/IA will:
- Prepare requisitions using Exhibit S7-6 format.
- Submit requisitions to NAVSEA via Defense Automated Addressing Service Center (DAASC) between A-150 and A-120 days.
- If material is identified on the NDE-NM 4720 Report to be shipped direct to the NSA/IA, no action is required by the NSA/IA. Follow-up status may be directed to the cognizant NAVSEA material manager/ SPM.

7-5.1.3 Requisitioning SPAWAR Managed Material

No requisitioning action is required by the NSA/IA for 2Z Cognizance material. Follow-up status may be directed to the SPM/SPAWAR Item Manager.

7-5.1.4 Requisitioning NAVICP-M Managed Material

The NSA/IA will:

- Prepare requisitions using the Exhibit S7-7 format.
- Submit requisitions to NAVICP-M via DAASC between A-12 and A-0. PPRs will be deleted from the NAVICP-M records after the RDD has passed. (See Subsection 7-3.10.3.)
- Make follow-up contact with NAVICP-M/SPM in the event that material or material status is not received.
- Advise NAVICP-M of 500/600 Project Code assignment via message, letter, or electronic mail (See Subsection 7-3.0.2.1.)

7-5.1.5 Requisitioning DLA - Managed Material

The NSA/IA will:

- Prepare requisitions using the Exhibit S7-8 format.
- Submit requisitions direct to the appropriate DSC via DAASC. DLA material is not

reserved. SPRs will be purged by the appropriate DSC after the RDD has passed.

- Follow-up on requisitions and contact the cognizant DSC/TYCOM/SPM in the event material or status is not received.
- For a list of Acquisition Advice Codes (AACs) refer to Exhibit S7-9.

EXHIBIT S7-1
CRITERIA FOR ENTRY IN NDE-NM

- All HSC Material
- Navy and DLA Material
- Recommended items based on past material availability problems and judgment
- High Dollar Value Items
- Material of Unusual Quantity
- Non-Standard Material
- Submarine Safety (SUBSAFE) Level 1 Material
- Logistically Significant Material (LSM) which requires development of new/revised logistics (Provisioning Technical Documentation (PTD), Allowance Parts List (APL), Training, Planned Maintenance System (PMS), Technical Manuals, Test Equipment
- High Shock Items
- Material with Design Unique to the SHIPALT
- Large Quantities of Non-LSM
- Material with a History of Procurement Problems
- Long Lead Time Material (LLTM) (Material considered to have a high probability of not being obtainable within thirty (30) days)

- DOES NOT INCLUDE -

- Strategic Systems Programs Alterations (SPALTS
- Nuclear Propulsion or Associated Nuclear Support Material
- SUBMEPP Procured Material
- SSBN 726 Class Submarine Alterations

EXHIBIT S7-2
NDE-NM "9999" Best Estimated Delivery Date (BEDD) CODES

9999-01	Requirement not budgeted
9999-02	Item suspect of having been already installed and/or applicable SHIPALT indicated as complete in previous availability
9999-03	Material required cannot be identified
9999-04	Quantity required is questionable
9999-05	Item is part of larger assembly/system and should not be listed separately
9999-06	Item listed as complete system and should be listed as components
9999-07	Item to be supplied different than specified
9999-08	Item required not managed by code assigned
9999-09	Item required not managed by code assigned
9999-10	Material requested is being provided by AIT
9999-11	Requirement, which is an addition or change, indicates a start date which has passed
9999-12	Other. Explanation forwarded by separate correspondence.
9999-13	Material requested is Shipbuilding and Conversion, Navy (SCN) funded and will not be included in Other Procurement, Navy (OPN) budget process
9999-14	Material requested is not required for SHIPALT indicated
9999-15	Material superseded
9999-16	NSA/IA requisition at A-3
9999-17	Schedule if not installed previously
9999-18	Installed by AIT
9999-19	Installed at depot
9999-20	Installed at manufacturer
9999-21	Not Available
9999-22	Material receipt acknowledged by IA
9999-23	Budgeted but not funded

EXHIBIT S7-3
PLANNED PROGRAM REQUIREMENTS (PPRs) REJECTS

REJECT	EXPLANATION
000 DAY	(Overhaul/Availability Start Date is less than the current date (Run date of file).
AAC	Material Control Code is A or Special Material Identification Code (SMIC) is X2, X3 or X4.
ALTID	Alteration Identification is BLANK or zero.
COG	Cog for which managing ICP is not N35 (NAVICP-M), N32 (NAVCIP-P), or S9_ (DLA activity).
OH START	Overhaul/Availablity Start Date is non-numeric, zero or invalid year, month or day.
DUPLICATE RECORD	Requirement match at NAVICP-M against NIIN, ship UIC and ALTID. If record is found on second and other hits, this will appear.
IMC	Item Management Code is Z (Integrated Management).
NSN	NSN contains one of the following: BLANKS, all zeros, is not 9 alphanumeric characters long, last three digits are non-numeric, or no record/deleted from file.
QTY	Quantity required is non-numeric or zero. If zero, the item is installed.
SHP UIC	Ship UIC is BLANK or zero.
U/I	NIIN found on Program Support Interest file but unit of issue was not EA, SE, KT or AY.
YARD	Yard UIC is BLANK, zero filled or not on yard UIC to stock point ARI table.

EXHIBIT S7-4
SPECIAL PROGRAM REQUIREMENT (SPR) STATUS CODES

NUMBER OF CHARACTERS: TWO
TYPE OF CODE: Alphabetic
EXPLANATION: Used to inform forecasting activities submitting Special Program Requirement (SPR) documents of action taken
RECORD POSITION: 65-66 (SPR Status Document)

CODE	EXPLANATION
PA	Request or modifier accepted. Submit requisition in time to allow for delivery within the appropriate Uniform Material Movement and Issue Priority System (UMMIPS) time standard.
PB	Request rejected. SPR is not within IMM acceptance criteria. The SPR quantity significantly exceeds the recorded Quarterly Forecast of Demand on this item. The SPR will not be processed until the submitter sends the IMM written confirmation that the quantity and support dates are valid and accurate. Upon completion of verification, the IMM will reprocess the SPR without further edits.
PC	Request or modifier accepted. Extra time is required to assemble after receipt of requisition. The required assembly time in number of days is included in record positions 62-64.
PD	Cancellation accepted.
PE	Rejected. The request is a duplicate of a previously submitted request.
PF	Rejected. The request listed herein or separate correspondence referring to this document number explains reasons for this action.
PG	Request rejected (unnecessary). SPR quantity is so low that the IMM can support the requirement from its current stockage level without an SPR document.
PH	Modifier rejected. A significant quantity increase was requested within the item's lead-time. The submitter is required to provide the IMM written verification that the quantity and support date are valid and accurate. Upon completion of verification, the IMM will reprocess the SPR. The original quantity is still being supported by the IMM.
PJ	Rejected. Item coded (or being coded) obsolete in latest stock lists catalogs.
PM	Rejected. Request received less than 90 days in advance of the support date. Submit requisition.
PN	Rejected. Source of supply is local manufacture or fabrication.

PP	Rejected. Source of supply is local procurement.
PQ	Rejected. Stocks not available to meet support date. Procurement/assembly required. Request received less than procurement lead time/assembly time in advance of support date. Procurement lead time/assembly time in number of days is record positions 62-64. Submit funded requisition.
PT	Substitute item available. If substitute stock number shown in stock number field is acceptable, resubmit using document identifier DYG and submit requisition in time to allow for delivery within the appropriate UMMIPS time standard. In the event substitute item is not acceptable, resubmit, using document identifier DYH.
PV	Cancelled. Item has been logistically reassigned by the activity indicated in record positions 77-79. Submit new SPR to gaining activity.
PW	This is interim reply request. Manual review being made and additional response will be furnished.
PX	Rejected. The item is an Acquisition Advice Code J item (centrally procured for shipment directly to user or another service, not stocked by procuring activity). Submit funded requisition in time to permit procurement. Procurement lead-time in days is shown in record positions 62-64.
PY	Cancelled. Item has been changed from stocked to non-stocked by the Integrated Material Manager. If still required, submit requisition for quantity required, so that procurement action can be initiated for direct shipment.
NOTE:	In addition to the above, the following NAVICP-M response codes will appear in NDE-NM in the contract number field after SPR.
IS	In Screening. The requirement has been forwarded to the cognizant Defense Supply Center (DSC). If a response has not been received before the interface file is returned to NAVSEA, NAVICP-M will indicate "IS".
NR	No Reply. On items for which the cognizant DSC has not responded by the next program cycle, the IS will be changed to NR. Replies from the DSC beyond these cycles from the date of NAVICP-M submittal will be accepted.

The document numbers assigned to these response codes will have no BEDD and are not valid until response is received and entered into NDE-NM.

EXHIBIT S7-5
REJECT ADVICE CODES

NUMBER OF CHARACTERS: Two
TYPE OF CODE: Alphabetic
EXPLANATION: Identifies to the originators of Military Standard Transaction Reporting and Accounting Procedures (MILSTRAP) transactions the reason for rejection and indicates return of the transaction for correction and re-submission.
RECORD POSITIONS: 79-80 (Transaction Reject Document)

CODE	DEFINITION
AA	Rejected. Document Identifier invalid
AB	Rejected. Submitted to incorrect material manager; Routing identifier Code of manager indicated in record positions 67-69, if known.
AC	Rejected. Type of inventory code invalid or blank.
AD	Rejected. Stock or part number unidentifiable.
AE	Rejected. Quantity field invalid.
AF	Rejected. Document Number invalid.
AG	Rejected. Ship To address unidentifiable.
AH	Rejected. Required Signal Code invalid or blank.
AJ	Rejected. Required Fund Code invalid or blank.
AK	Rejected. Ownership/Purpose Code invalid or blank.
AM	Rejected. Condition Code invalid or blank.
AP	Rejected. Required Management Code invalid or blank.
AQ	Rejected. Processing/Count Date invalid or blank.
AR	Rejected. Unit of Issue incorrect.
AS	Rejected. Support Date invalid.
AT	Rejected. Asset Support Request Code invalid or blank.
AU	Rejected. Asset Support Request is for an item not centrally managed and stocked (Acquisition Advice Codes F, L, P, or W)
AV	Rejected. Activity identified in cc 30-35 Department of Defense Activity Address Code (DoDAAC) and/or 27-29 Routing Identifier Code (RIC) is not authorized to submit Logistic Asset Support Estimate (LASE) Requests
AW	Logistic Reassignment Transaction (DEE, DEF, or DDX) received more than one year after the Effective Transfer Date (ETD). D4X will be rejected if no memorandum due in is on record at the Gaining Inventory Manager (GIM) to indicate it is a valid procurement receipt.
AX	Rejected. General Services Administration (GSA) is source of supply for requested LASE or SPR procedures. If required, submit funded MILSTRIP requisition citing applicable RDD to GSA.

NOTE: Codes in the A-series not listed above are reserved for future use and are not to be used unless authorized and disseminated by the MILSTRAP System Administrator. Codes in the B_ through Z-series- are reserved for intra-Service/Agency use.

EXHIBIT S7-6
NAVSEA-MANAGED REQUISITIONING

RECORD POSITION*	INFORMATION	SOURCE
1-3	Document Identifier	Enter A0_ series.
4-6	Routing Identifier	Enter N23
7	Media and Status Code	Enter S for requisitioner to receive exception and shipping status by electronic methods.
8-22	Stock Number	NSN/NIIN in NDE-NM
23-24	Unit of Issue	U/I in Management List - Navy (ML-N)
25-29	Quantity	Quantity in the OUT (Outstanding) field in NDE-NM
30-43	Document Number	Use pre-assigned MILSTRIP number in NDE-NM when applicable.
44	Demand Code	P, indicating a planned requirement, when applicable, N if SPR not accepted.
45-50	Supplementary Address	Enter the UIC of the installing activity.
51	Signal Code	Enter K (bill to activity designated in CCs 45-50).
52-53	Fund Code	Enter Y6. (Free Issue)
54	Distribution Code	Use appropriate code.
55-56	Cognizant Symbol	Use COG Symbol
57-59	Project Code	Enter ZF6 for all non-submarine SHIPALT material and ZV6 for submarine SHIPALT material. .
60-61	Priority	Priority supplied by requisitioner.
62-64	Required Delivery Date	Start of Availability.
65-66	Advice Code	In accordance with local procedures.
67-80	LEAVE BLANK	LEAVE BLANK

* Refer to NAVSUP PUB 485 Volume III for more requisitioning details.

EXHIBIT S7-7
NAVICP-M -MANAGED MATERIAL REQUISITIONING

RECORD POSITION*	INFORMATION	SOURCE
1-3	Document Identifier	Enter A0_ _ Series
4-6	Routing Identifier	Enter N35.
7	Media and Status Code	Enter S for requisitioner to receive exception and shipping status by electronic methods.
8-22	Stock Number	NSN/NIIN in NDE-NM.
23-24	Unit of Issue	U/I in ML-N
25-29	Quantity	Quantity in the OUT (Outstanding) field in NDE-NM
30-43	Document Number	Submit shipyard/NSA/IA requisition (yard UIC and serial number.)
44	Demand Code	Enter P, indicating a planned requirement.
45-50	Supplementary Address	Enter in accordance with local requisitioning procedures.
51	Signal Code	Assign signal code per local procedures.
52-53	Fund Code	Fund Code supplied by requisitioner.
54	Distribution	Enter appropriate code.
55-56	Cognizance Symbol	Use COG symbol.
57-59	Project Code	Enter the 5/600 Series Industrial Project Code for SHIPALT material.
60-61	Priority	Priority supplied by the requisitioner.
62-64	Required Delivery Date	120 days prior to availability start date or 1 October of the FY programmed.
65-66**	Advice Code	Enter 5E or 5R whichever is applicable.
67-69	LEAVE BLANK	LEAVE BLANK
70	Purpose Code	Enter T.
71	Condition Code	Enter A.
72-80	LEAVE BLANK	LEAVE BLANK

* Refer to NAVSUP PUB 485 Volume III for more information.
** Advice Code 5E to be used for the draw down of a planned requirements as reservation without a directly related turn-in. Billing will be a standard (full) price.

EXHIBIT S7-8
DLA-MANAGED MATERIAL REQUISITIONING

RECORD POSITION*	INFORMATION	SOURCE
1-3	Document Identifier	Enter A0_ _ Series
4-6	Routing Identifier	Enter Routing Identifier of cognizant Defense Supply Center.
7	Media and Status Code	Enter S for requisitioner to receive exception and shipping status by electronic methods.
8-22	Stock Number	NSN/NIIN in NDE-NM
23-24	Unit of Issue	U/I from ML-N
25-29	Quantity	Quantity from OUT (Outstanding) field of NDE-NM
30--43	Document Number	Submit shipyard/NSA requisition using local UIC and serial number.
44	Demand Code	Enter “P”, for planned requirement if PA or PB appears in the SPR Response field on the NDE-NMTP-05 report. Enter “N” if other than PA or PB appears in the NDE-NM report.
45-50	Supplementary Address	Enter in accordance with local requisitioning procedures.
51	Signal Code	Assign signal code per local procedures.
52-53	Fund Code	Fund Code supplied by requisitioner.
54	Distribution	Enter appropriate code.
55-56	Cognizance Symbol	Enter COG symbol from NDE-NM
57-59**	Project Code	Enter 5/600 Series Industrial project code for SHIPALT material.
60-61	Priority	Priority supplied by requisitioner.
62-64	Required Delivery Date	Enter Julian date material is required.
65-66	Advice Code	Enter 2L
67-69	LEAVE BLANK	LEAVE BLANK
70	Purpose Code	Enter A
71	Condition Code	Enter A
72-80	LEAVE BLANK	LEAVE BLANK

* Refer to NAVSUP PUB 485 Volume III for more requisitioning details.
** Use 5/600 Series Industrial Project Codes

EXHIBIT S7-9
ACQUISITION ADVICE CODES (AACs)

NUMBER OF CHARACTERS: ONE
TYPE OF CODE: ALPHA
EXPLANATION: These codes indicate how (as distinguished from where), and under what restrictions, an item will be acquired. The AAC will reflect applications of the basic methods, i.e., by requisition, by Federal Supply Schedule, by fabrication or assembly, or by local purchase. The AAC is used for customer level, not system level, acquisitions.
REFERENCE: DoD 4100.39M, Volume 10, Table 58
RECORD POSITIONS: Change Notice Document Column 7 (Retail Management items only), Position 50 (Changes to or addition of AAC for Navy ICP items and for changes to AAC for retail items).

CODE	DEFINITIONS
A	SERVICE/AGENCY REGULATED Issue, Transfer or Shipment is controlled by authorities above the ICP level to assure proper and equitable distribution 1. The use or stockage of the item requires release authority based on prior or concurrent justification. 2. Requisitions will be submitted in accordance with Service/Agency requisitioning procedures.
B	ICP REGULATED Issue, Transfer or Shipment is controlled by the ICP. 1. The use or stockage of the item requires release authority based on prior or concurrent justification. 2. Requisitions will be submitted in accordance with service/agency requisitioning procedures.
C	SERVICE/AGENCY REGULATED Issue, Transfer or Shipment is not subject to specialized controls other than those imposed by individual services supply policy. 1. The item is centrally managed, stocked and issued. 2. Requisitions will be submitted in accordance with service/agency requisitioning procedures.
D	DoD INTEGRATED MATERIAL – MANAGER (IMM), STOCKED AND ISSUED Issue, transfer or shipment is not subject to specialized controls other than those imposed by the integrated material manager/Military) Service (IMM/MS) supply policy. 1. The item is centrally managed, stocked and issued. 2. Requisitions must contain the fund citation required to acquire the item. Requisitions will be submitted in accordance with the IMM/MS

requisitioning procedures.

E OTHER SERVICE- MANAGED, STOCKED AND ISSUED
Issue, Transfer or Shipment is not subject to specialized controls other than those imposed by the services requisitioning policy.
1. The item is centrally managed, stocked and issued.
2. Requisitions may require a fund citation and will be submitted in accordance with the service requisitioning procedures.

F FABRICATE OR ASSEMBLE (NON-STOCKED ITEMS)
National Stock Numbered items fabricated or assembled from raw materials and finished products as the normal method of support. Procurement and stockage of the items are not justified because of low usage or peculiar installation factors. Distinctions between local or centralized fabricate/assemble capability are identified by the Source of Supply Modifier in the "Source of Supply" column of the Service Management Data Lists.

G GENERAL SERVICES ADMINISTRATION (GSA) OR VETERANS ADMINISTRATION (VA) INTEGRATED MATERIAL MANAGED, STOCKED AND ISSUED.
Identifies GSA or VA managed items available from GSA distribution facilities. Requisitions and fund citations will be submitted in accordance with GSA/VA/Service requisitioning procedures.

H DIRECT DELIVERY UNDER A CENTRAL CONTRACT (VENDOR STOCKED)
Issue, Transfer or Shipment is not subject to specialized controls other than those imposed by Integrated Material Manager/Service/Agency supply policy.
1. The item is centrally managed and procured.
2. Normal issue is by direct shipment from the vendor to the user at the order of the ICP or IMM distribution facilities when the vendor's minimum order quantity is not met, or when stocks are being drawn down. Requisitions and fund citations will be submitted in accordance with IMM/Service/Agency requisitioning procedures.
3. Generally delivery will be made within applicable Service/Agency guidelines addressing customer-required timeframe.

I DIRECT ORDERING FROM A CENTRAL CONTRACT/SCHEDULE (NON-STOCKED ITEMS)
Issue, Transfer or Shipment is not subject to specialized controls other than those imposed by IMM/Service/Agency supply policy. The item is covered by a centrally issued contractual document or by multiple award Federal Supply Schedule, which permits any using activity to place orders directly on vendors for direct delivery to the user.

J NOT STOCKED, CENTRALLY PROCURED (NON-STOCKED ITEMS)

IMM/Service centrally managed but not stocked items. Procurement will be initiated only after receipt of a requisition.

K CENTRALLY STOCKED FOR OVERSEAS ONLY (NON-STOCKED ITEMS)
Main means of supply is local purchase or direct ordering from a central contract/schedule when the Federal Supply Schedule Number is shown in the CMD record. Item is stocked in domestic supply system for those overseas activities unable to procure locally due to non-availability of procurement sources or where local purchase is prohibited (e.g. ASPR; Flow of Gold or by internal military service restraints).
Requisitions will be submitted by overseas activities in accordance with agency/service requisitioning procedures. NOTE: Continental U.S. (CONUS) activities will obtain supply support through local procurement procedures.

L LOCAL PURCHASE (NON-STOCKED ITEMS)
DLA/GSA/Service/Agency managed items authorized for local purchase as a normal means of support, at base, post, camp or station level. Item is not stocked in wholesale distribution system of IMM/Service Agency ICP.

M RESTRICTED REQUISITIONS-MAJOR OVERHAUL (SERVICE/AGENCY USE ONLY)
Items (assemblies and/or component parts), which for lack of specialized tools, test equipment, etc. can be used only by major overhaul activities. Base, post, camp or station activities will not requisition unless authorized to perform major overhaul function.

N RESTRICTED REQUISITIONING – DISPOSAL. (Service/agency use only.)
Discontinued items no longer authorized for issue except on the specific approval of the service inventory manager. Requisitions may be submitted in accordance with service requisitioning procedures in instances where valid requirements exist and replacing item data has not been furnished.

O PACKAGED FUELS (NON-STOCKED ITEMS)
DLA managed and service regulated.

1. Items will be centrally procured in accordance with DoD 4140.25-M, Procedures for the Management of Petroleum Products, but not stocked by IMM. Long lead time required.
2. Requirements will be satisfied by direct shipment to the user either from a vendor or from service assets at the order of the ICP or IMM
3. Requirements and/or requisitions will be submitted in accordance with Service procedures.

P RESTRICTED REQUISITION - SECURITY ASSISTANCE PROGRAM (SAP)

1. Indicates item is stocked or acquired only for SAP (replaces MAP)

requirements, or
2. Indicates item is non stocked and material is ordered from the contractor for shipment directly to the foreign government,
3. Base, post, cap or station will not requisition.

Q BULK PETROLEUM PRODUCTS DLA-managed
1. Item may be either centrally stocked or available by direct delivery under a central contract.
2. Requirements will be submitted by military services in accordance with IMM procedures.
3. Item will be supplied in accordance with DoD 4140.25-M.

R RESTRICTED REQUISITION - GOVERNMENT FURNISHED MATERIAL (GFM)
Indicates item is centrally procured and stocked as GFM in connection with manufacture of military item. Base, post, camp or station will not requisition.

S RESTRICTED REQUISITIONING - OTHER SERVICE FUNDED
For service managed items whereby the issue, transfer or shipment is subject o specialized controls of the funding military service.
1. Item is procured by a military service for the funding military service and is centrally managed by the funding military service.
2. The procuring military service has no requirement in its logistic system for the item.

T CONDEMNED (NON-STOCKED ITEMS)
Item is no longer authorized for procurement, issue, and use or requisitioning.

U LEAD SERVICE MANAGED
As a minimum, provides procurement, disposal and single submitter functions. Wholesale logistics responsibilities, which are to be performed by the PICA in support of the SICA are defined by the SICA NIMSC codes.

V TERMINAL ITEM (STOCKED ITEMS)
Identifies items in stock, but future procurement is not authorized. Requisitions may continue to be submitted until stocks are exhausted. Preferred item National Stock Number (NSN) is normally provided by the application of the phrase: "When Exhausted Use (NSN)". Requisitions will be submitted in accordance with IMM/Service requisitioning procedures as applicable.

W RESTRICTED REQUISITIONING - SPECIAL INSTRUCTIONS APPLY (NON-STOCKED ITEMS)
Indicates stock number has been assigned to a generic item for use in bid invitations, allowance lists, etc. against which no stocks are ever recorded. Requisitions will be submitted only in accordance with IMM/Service

requisitioning procedures. (This code will be used, when applicable, in conjunction with Phrase Code S (stock as NSN(s).) It is considered applicable for use when a procurement source(s) becomes available. The Phrase Code S and the applicable "stock as" (NSN(s)) will then be applied for use in stock, store and issue actions.

X SEMIACTIVE ITEM- NO REPLACEMENT NONSTOCKED ITEM. A potentially inactive NSN which must be retained in the supply system as an item of supply because (1) stocks of the item are on hand or in use below the wholesale level and (2) the NSN is cited in equipment authorization documents TO&E, TA, TM, etc., or in-use assets are being reported.

1. Items are authorized for central procurement but not authorized for stockage at wholesale level.
2. Requisitions for in-use replacement will be authorized in accordance with individual military service directives.
3. Requisitions may be submitted as requirements generate. Repetitive demands may dictate an AAC change to permit wholesale stockage.

Y TERMINAL – ITEM (NON STOCKED ITEMS)
Further identifies Code V items on which wholesale stocks have been exhausted. Future procurement is not authorized.

1. Requisitions will not be processed to the wholesale suppliers.
2. Internal Service/Agency requisitioning may be continued in accordance with Service/Agency requisitioning policies.

Z INSURANCE/NUMERIC STOCKAGE OBJECTIVE ITEM
Items which may be required occasionally or intermittently and prudence requires that a nominal quantity of material be stocked due to the essentially or the lead-time of the item.

1. The items are centrally managed, stocked and issued.
2. Requisitions will be submitted in accordance with IMM/Service requisitioning procedures.

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Exhibit S8-III EOA/EOI ILS Verification Form
Exhibit S8-IV Format For EOA/EOI ILS Verification Statement
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SUBSECTION 8-0 OVERVIEW TO CONFIGURATION AND LOGISTICS MANAGEMENT

8-0.1 Background

The Fleet Modernization Program (FMP) planning process is the cornerstone for the life cycle support of any FMP modified or installed equipment. The FMP process occurs in the Operational phase of the Ship Platform's lifecycle. Its purpose and focus are the modification of existing shipboard equipment or the introduction of new equipment to an existing Ship Platform.

Figure S8-1 is a notional timeline based on the requirements of Reference S8(a) and the FMP process. This figure shows that the FMP process (including logistics) is not a stand-alone program. It is an integral part of system acquisition and modification for the operational Fleet. Deficiencies in Integrated Logistics Support (ILS) planning during the acquisition process will result in the installation of unsupported alterations and adversely impact the Fleet's ability to properly operate and maintain the system during deployment.

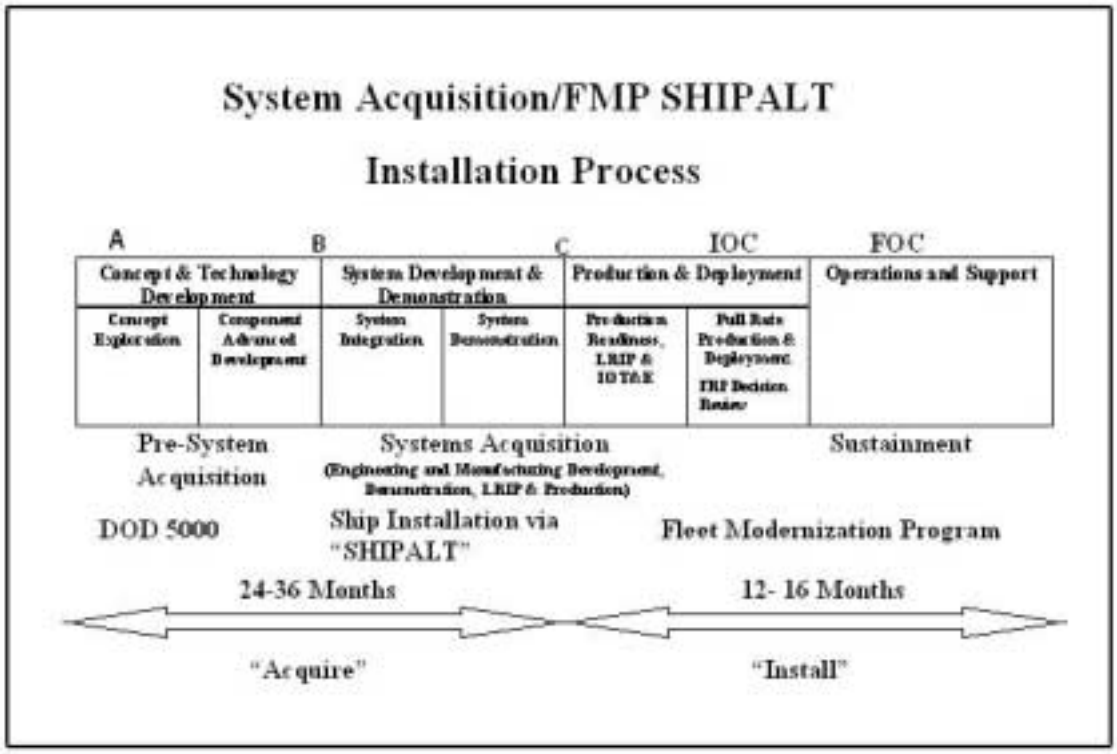

Figure S8-1

The FMP process relies on proper ILS planning occurring in concert with system development early in the acquisition process for new systems or equipment (Programs Of Record) as well as for lesser alterations to existing systems and equipment.

8-0.1.1 Purpose

During a ship's operational lifecycle, planned alterations are made to the configuration of a ship's systems and equipment, which typically impact the logistics supportability of that platform. The purpose of Section 8 is to outline the processes and procedures necessary to ensure that all ship's systems and equipment alterations are logistically supported. In accordance with reference S8(b), the primary end goals of the FMP logistics process are as follows:

a. ILS products must be available to support the installation and checkout of systems and equipment; and

b. Technical documentation and logistics support must be on board the ship when the alteration is accomplished (i.e., the End Of Availability (EOA) in which the alteration is installed).

Accordingly, any activity funding an alteration is solely responsible for funding the acquisition of ILS products for the alteration and for ensuring that a complete ILS package is provided to the Fleet to support the alteration. These requirements apply inside or outside of a Chief of Naval Operations (CNO) availability.

8-0.1.2 ILS Element Impacts for Alterations

There have been numerous changes impacting Fleet Modernization (FLTMOD), Configuration Management (CM), and supportability since the last update to the FMP Management and Operations Manual in 1993. The emphasis of Battle Force Interoperability (BFI), the integration of (FLTMOD) with the Deployment (D)-30 Process, installation of alterations by Alteration Installation Teams (AITs), a greater reliance on Commercial Off-The-Shelf (COTS)/Non-Developmental Item (NDI) equipment, and the reduction in the logistics support infrastructure have created significant challenges for logisticians to ensure the support of a system/equipment throughout its life-cycle.

The unique support considerations associated with developing, acquiring and supporting shipboard alterations must be understood within the context of the logistics support elements listed below.

- Maintenance Planning
- Support Equipment (SE)
- Supply Support
- Packaging, Handling, Storage and Transportation (PHS&T)
- Computer Resources Support
- Technical Data
- Facilities
- Manpower and Personnel
- Training and Training Support
- Design Interface

Each ILS element is impacted to differing degrees by each alteration installed onboard a given platform. The development of logistics lifecycle support considerations must take into account each alteration's impact on each of these ILS elements. The challenge to the logistician is to ensure that ample consideration is given to each of these elements to the degree necessary to provide the highest level of material readiness for our deployed forces.

It should be noted that the FMP ILS process is geared toward supporting shipboard alterations. Although CM is not an ILS element, it is a key element of Systems Engineering and the foundation of the FMP process. Early involvement of logisticians in the review and approval of proposed alterations and in the determination of ILS impacts is crucial to the success of the FMP ILS process in order to ensure the correct identification, development, and delivery of all required ILS products to the ship by EOA/End Of Installation (EOI).

8-0.1.3 ILS For Commercial Off-The-Shelf (COTS)/Non-Developmental Item (NDI)
COTS/NDI acquisitions create a unique challenge for the logistician in planning for and acquiring requisite ILS products for alterations. Properly defined COTS/NDI is an acquisition strategy (rather than a logistic support methodology) which can be applied to the procurement of hardware, software, and firmware which greatly reduces the cost of equipment development, accelerates procurement timelines and reduces the Navy logistics support infrastructure. The use of COTS/NDI strategies does not modify or alleviate the responsibilities of the equipment Life Cycle Manager (LCM) from meeting the ILS requirements of the FMP. The challenge of COTS/NDI acquisitions is to ensure that the level of logistics support available with COTS/NDI equipment is sufficient to meet the Navy's requirements.

8-0.1.4 Alteration Installation Teams (AITs)
AITs are required to conform to the basic guidance, policies and procedures covered in this section of the FMP manual. However, AITs shall refer to reference S8(c) for the detailed procedures of AIT installations occurring inside or outside CNO availabilities.

8-0.2 Battle Force Interoperability (BFI) NAVSEA 53 Roles and Responsibilities
Advances in hardware and software technology and the need for interoperability require Fleet modernization and CM policy to address documentation of existing configurations and future modifications.

Traditionally, CM has been managed at the piece part, equipment and system level. The Naval Sea Systems Command (NAVSEA) has designated the Ship Program Manager (SPM) as the platform Configuration Manager. However, the need for interoperable Battle Groups has driven the requirement for the development, documentation and implementation of an overarching Battle Force CM policy and process.

Accordingly, NAVSEA 53's mission to develop policy and architecture for Battle Force warfare Systems Engineering has changed the focus of Navy CM from a system/platform focus to a Battle Group focus. NAVSEA 53 is responsible for implementing a common warfare Systems Engineering process and providing top level direction for the fielding and support of balanced combat systems for ships and submarines. NAVSEA 53 baselines Battle Group warfare system capabilities, maintains configuration control of these baselines, verifies interoperability of Battle Group configurations, and certifies baseline configurations prior to deployment. Battle Group interoperability has highlighted the need for accurate and timely configuration data. CM is the common language shared by both the engineering and logistics communities.

The Navy Battle Force Alignment (NBFA) Initiative Project Process Team identified

supportability issues as a major Fleet concern. Figure S8-2 represents the relationship between CM, supportability, Fleet modernization, and BFI. CM and supportability provide the foundation for successful Fleet modernization and BFI.

In addition to the references listed in Subsection 8-0.3, the Logistician and Configuration Manager should be familiar with major policy documents contained in Exhibit S8-I.

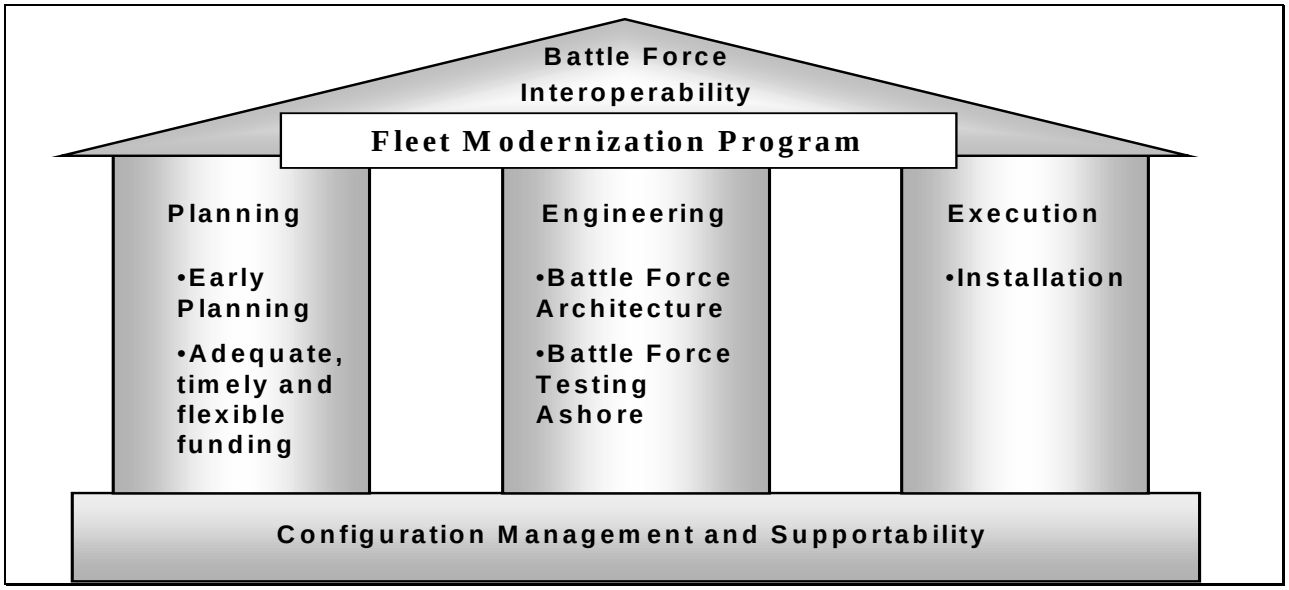

Figure S8-2

8-0.3 References for Section 8

S8(a) SECNAVINST 5000.2(Series) Implementation Of Mandatory Procedures For Major and Non-Major Defense Acquisition Programs and Major and Non-Major Information Technology Acquisition Programs

S8(b) OPNAVINST 4720.2(Series) Fleet Modernization Program (FMP) Policy

S8(c) NAVSEA Tech Spec 9090-310(Series) Ship Alteration Accomplishment by Alteration Installation Teams

S8(d) SL105-AA-PRO-030 Integrated Logistics Overhaul Policy and Procedures Manual

S8(e) NAVSEA Tech Spec 9090-700(Series) Ship Configuration and Logistic Support Information System (SCLSIS) Process

S8(f) NAVSEA Tech Spec 9090-1500(Series) Provisioning, Allowance and Fitting Out Support (PAFOS) Policy and Procedures Manual

S8(g) S0005-AA-PRO-010 TM Operations, Procedures, and Lifecycle Support Handbook

S8(h) S1700-AM-PRO-010/TAMS Test and Monitoring System (TAMS) Program Operations and Procedures Manual

S8(i) NAVSEAINST 4790.17(Series) Fleet Test and Repair of Shipboard Electronic Equipment

S8(j) SECNAVINST 3960.6(Series) Department of The Navy Policy and Responsibility for Test, Measurement, Monitoring, Diagnostic Equipment and Systems, and Metrology and Calibration (METCAL)

S8(k) OPNAVINST 4700.7(Series) Maintenance Policy for Naval Ships

S8(l) OPNAVINST 1500.76(Series) Navy Training System Requirements, Acquisition, And Management

S8(m) TF8501-AF-PLN-010 Submarine Training Materials Management Plan

S8(n) SSN Training Facilities Life Cycle Support Plan

S8(o) NAVSEAINST 4720.14(Series) Temporary Alterations To Active Fleet Submarines

SUBSECTION 8-1 INTRODUCTION TO CONFIGURATION AND LOGISTICS MANAGEMENT

8-1.1 Scope

This subsection provides policy and procedures and assigns responsibilities for accomplishing ILS actions in support of alterations. The objective is to have complete and satisfactory logistics support available and delivered for each alteration when it is accomplished.

Effective Fleet readiness depends on maintaining complete, accurate and up-to-date ship configuration records, and logistics products. The FMP goal is to ensure that every alteration is properly reported and completely supported logistically.

Section 8 applies to all alterations to include but not limited to Ship Alterations (SHIPALTs), Ordnance Alterations (ORDALTs), Engineering Changes (ECs), Field Changes (FCs), Machinery Alterations (MACHALTs), Alterations Equivalent to Repair (AERs), software changes and all other alterations accomplished either during planned industrial availabilities or alterations authorized by cognizant authority that are accomplished outside of planned availabilities. This includes alterations accomplished as a result of repairs or replacements. The procedures and policies established in this section apply to all material. ILS policy for Temporary Alterations (TEMPALTs) is defined in Subsection 8-4. Reference S8(c) covers the installation of alterations by AITs wherever the alteration is accomplished, both inside and outside CNO availabilities.

8-1.2 Exceptions

The Deputy Commander for Nuclear Propulsion, NAVSEA 08, is responsible for all technical matters pertaining to nuclear propulsion of US Navy ships and craft, including all aspects of integration of the nuclear plant into the ship system. Nothing in this section detracts in any way from these responsibilities. Accordingly, NAVSEA 08 will be consulted in all matters relating to or affecting the nuclear propulsion plant and associated nuclear support facilities. In addition, the procedures and requirements in this section are not applicable to alterations under the cognizance of the NAVSEA 08. Strategic Systems Program Alterations (SPALTs) affecting the configuration and/or capabilities of systems and equipment are under the cognizance of the Director, Strategic Systems Programs (DIRSSP). Alterations affecting configuration of hardware, software, firmware and support equipment of the TRIDENT System are under the cognizance of NAVSEA PMS392.

8-1.3 Integrated Logistics Support (ILS) Status Reviews and Monitoring Procedures

The ILS status review and monitoring procedures for ensuring complete logistics support for alterations are described below. The following paragraphs identify notional timeframes for the ILS Status Reviews. The SPM may tailor the frequency and duration of status reviews. The complexity of the alteration (and the number of affected ILS products), the number of first-time installations, the length of the installation period, and Fleet recommendations, will normally determine the ILS Status Review requirements.

8-1.3.1 Ship Program Manager (SPM) A-12 ILS Status Review

The CNO policy states that all alterations will be logistically supported. In compliance with this

policy, the SPM conducts an ILS Status Review for first-time installations of SHIPALTs and certifies this review through the ILS Certification Form, a sample of which appears as Exhibit S8-II. The current version of the ILS Certification Form and its preparation guide can be obtained from http://www.fmp.navy.mil/FMPACTIVE/Relatedinfo/RelatedInfo.htm.

At approximately Start Of Availability (A)-12, the SPM will request the ILS Certification Form from the responsible LCM or designated agent. The LCM shall provide the ILS Certification Form so that the SPM has sufficient time to evaluate ILS readiness, identify deficiencies, and respond to the LCM. The information contained on the ILS Certification Form should develop an ILS baseline to be used by the Planning Yard (PY)/Configuration Data Manager (CDM) in Configuration Overhaul Planning (COP) production. At A-12, the LCM will identify to the SPM and continuously advise him of any changes to planned configuration and update the status of any ILS products that will not be available by Start Of Availability (SOA) delivered by EOA/EOI. No Later Than (NLT) A-4 the LCM will identify to the SPM any ILS products determined to not be available by SOA. Once a first time alteration is scheduled and has ILS certification, it is paramount that the information on the ILS Certification Form be kept current to ensure that the ILS data matches changes to all associated supporting follow-on alteration documentation (such as the AIT checklist, Ship Alteration Record (SAR), Liaison Action Record (LAR), etc.). This will allow the Fleet/Fleet activities/SPM/LCM to verify that the correct ILS products were delivered by EOA/EOI.

8-1.3.2 ILS Certification Form

An ILS Certification Form must be completed in accordance with the ILS Certification Form Preparation Guide for first time alteration installations. Alterations approved by the SPM and documented in previously approved FMP formats will not require recertification into the new format (promulgated by this manual), so long as the data on the existing ILS Certification Form (ILS Information Sheet) is accurate and current.

The FMP Manual identifies the SPM's responsibilities to oversee all of the logistics aspects of FMP for their assigned ship classes. Delivering supportable alterations starts with the correct identification of logistics requirements with a Plan Of Action and Milestones (POA&M) to obtain those requirements prior to installation.

For Programs of Record, ILS products should have been under development prior to the start of the SAR process. The applicable equipment/system LCM will provide enough information pertaining to the configuration, equipment level Technical Manuals (TMs), Supply Support, Maintenance support, special Support and Test Equipment (shipboard), and Training with the planned time of delivery so that the SPM can evaluate the ILS readiness and resolve ILS product(s) issues prior to approving platform alterations. The ILS Certification Form/process is used to identify the requisite ILS products. The ILS Certification Form represents the most expedient means for a SPM to fulfill its responsibilities to oversee all of the logistics aspects of FMP for their assigned ship classes. Following SPM ILS approval of a given alteration, any changes to the configuration of an alteration for follow-on installations will be documented as a revision to the existing ILS Certification Form. An updated ILS Certification Form shall clearly document the ship/shore platforms impacted by the change as well as documenting ILS products impacted as a result of the changes to the configuration of the alteration. Changes to the

configuration of an alteration once approved by the SPM should be reflected in all related alteration technical documentation (SAR, SHIPALT Installation Drawings (SIDs), Interface Control Drawings (ICDs), etc.) as required to ensure the continuity of data between technical and ILS design requirements.

8-1.3.2.1 ILS Waivers

No waiver of ILS products delivery is authorized. At the time of publication, the policy and process for installation of equipment prior to delivery of ILS products are under development.

8-1.3.3 Ship Integrated Logistics Support Management Team (ILSMT) Meetings

The SPMs issue, through their Integrated Logistics Support Plans (ILSPs), the requirement for ship ILSMT meetings to support scheduled industrial availabilities. They determine the frequency of these meetings and approve an agenda for each meeting. ILSMT meetings provide an opportunity to identify deficiencies and take corrective action prior to EOA. The responsibilities of the ILSMT participants, as directed by the SPM, are as follows:

- SPM
  - Schedule and chair ILSMT meetings.
  - Develop agenda for ILSMT meetings.
  - Provide minutes, action items and status to all participants.
  - Monitor ILSMT action item milestone accomplishment.
  - Determine the method for accomplishing the Naval Supervising Activity (NSA)/Integrated Logistics Overhaul (ILO)/Integrated Logistics Review (ILR) interface per reference S8(d).
- CDM
  - Monitor and track all ILS milestones when directed by the SPM.
  - Report on CM and process issues
- Naval Supervising Activity (NSA)
  - Monitor and track delivery of all ILS products.
  - Coordinate and complete ILS Status Reports as required by this manual and the direction of the SPM (Exhibits S8-III thru S8-VII).
  - Act as recorder and meeting coordinator, when directed.
  - Chair the ILSMT meeting as directed by the SPM.
- All Others
  - Provide ILS status and/or metrics as required two weeks prior to the ILSMT meeting.
  - EOA deadline on areas of responsibilities designated in the ILSP and ILS Status Reports.

8-1.3.4 End Of Availability (EOA)/End Of Installation (EOI) ILS Verification

At EOA/EOI, the NSA will verify the status of ILS requirements resulting from alterations, including those installed by AITs. This verification will provide the SPM, the affected ship, and the Type Commander (TYCOM) a detailed presentation of logistics deficiencies at EOA/EOI. For deficiencies listed, an estimated delivery date shall be identified. The NSA will submit the ILS Verification Report and the ILS Status Report (Exhibits S8-III thru S8-VII) to the SPM with a copy to the ILO Atlantic Fleet (LANT)/Fleet Technical Support Center Pacific (FTSCPAC) ship, TYCOM, CDM, and PY. The SPM and TYCOM will follow-up on deficient ILS products. It should be noted that some SPMs task the CDM/PY to perform the EOA ILS Verification.

Such deviation is permissible providing there is an activity designated to provide this verification to the SPM. Additionally, submarine availabilities require the submission of Exhibits S8-V and S8-VI while surface ships only require Exhibit S8-VI. These exhibits are required for the Maintenance and Material Management (3-M) System Current Ship Maintenance Project (CSMP) closeout in the Maintenance Data System (MDS).

This verification is required for all material and for all alterations. All deficient ILS products will be reported as required by the ILSMT procedures (see Subsection 8-1.3.3). Repair-related items, not part of the availability work package or emergent work, are the responsibility of the TYCOMs. Although this is the final verification, the SPMs may require further reports on outstanding deficiencies.

8-1.4 Funding for Configuration and Logistics

The activity that is sponsoring an alteration is responsible for funding the development of ILS products (i.e., Provisioning Technical Documentation (PTD), TMs, training curricula, etc.). Often this involves delegating the responsibility to other organizations or agents; however, the sponsoring activity is ultimately responsible for adequately funding the organizations. Otherwise, the logistic responsibilities in this section are the mission-funded responsibilities of the identified activities, except reimbursable items as noted. The agency or activity that sponsors the development and/or installation of an alteration is also responsible for funding the designated activities to ensure the timely completion and distribution of Exhibits S8-II through S8-VII.

The ILS responsibilities in this section are the mission responsibilities of the identified activities, except reimbursable items as noted. The following guidance addresses only funding of logistics tracking and verification efforts at the NSAs. Funding guidelines for development of ILS products (e.g., PTD, TMs, Training Curricula, etc) are well established and are not addressed here.

Tracking and verification efforts assigned to Supervisor of Shipbuilding, Conversion, and Repair, USN (SUPSHIP) will be coordinated between the SPM and SUPSHIP to determine if efforts will be performed by SUPSHIP personnel (and charged to the expense operating budget of the SUPSHIP), or performed by contractor support personnel (and funded by the SPM). Those tracking and verification efforts not associated with the contractual deliverables being administered by the SUPSHIP are outside of the SUPSHIP's mission responsibilities and shall be funded by the alteration sponsor. Tracking and verification efforts included in contracts issued to private shipyards for execution by the contractor will be funded by the customer funding the applicable alteration.

All tracking and verification efforts at the Naval Shipyards (NSYs) that can be identified to a specific alteration should be charged to the customer funding the alteration.

NSYs will include customer-funded logistics tracking and verification costs in the Preliminary and Final Review Estimates (PREs/FREs). These costs shall include only costs of tracking and verifying logistics support, and shall not include related logistics efforts such as COP, which must be funded by other accounts.

SUBSECTION 8-2 POLICY AND MAJOR RESPONSIBILITIES FOR INTEGRATED LOGISTICS SUPPORT (ILS) PROCESSES

8-2.1 Scope

This subsection addresses ILS policy, the responsibilities of each activity involved with ensuring complete logistics support, and the ILS audits and controls involved in managing and reporting alterations occurring as a result of the FMP process.

8-2.2 Policy

Any activity responsible for procuring new systems, equipment or components intended for shipboard use, or for alterations to existing equipment, is responsible for procuring and initiating the development of all required ILS products. Contracting another activity to install alterations does not absolve the alteration sponsor from providing the ILS products. This policy applies to Headquarters Centrally Provided Material (HCPM) and Installing Activity Provided Material (IAPM), including both Centrally and Locally Provided Material (CPM/LPM). All ILS products will be complete, accurate and available by SOA, scheduled for delivery in time to support the installation and testing of the hardware, and provided to the ship by EOA/EOI. All alterations will be reported in accordance with Subsection 8-3 and reference S8(e). All nameplate and technical data will be updated to reflect alteration installations.

8-2.3 Major Responsibilities

The succeeding subparagraphs provide the major responsibilities for activities involved with ensuring complete ILS for alterations. Subsection 8-3 specifies the pertinent milestones.

8-2.3.1 Ship Program Manager (SPM)

SPMs are responsible for overseeing all of the ILS aspects of the FMP for their assigned ship classes, commencing with the early planning stages and continuing until the alteration has been installed and completely supported. SPMs have comprehensive responsibility for maintaining complete and accurate configuration records. This responsibility is discharged through the exercise of CM control during the FMP process and oversight of the CDMs. Of particular importance are the following responsibilities:

- Ensure that required logistics and configuration actions are identified in all alteration planning and development documents.
- Issue the SHIPALT Authorization Letter to the PY or designated activity, with copies to the CDM, and tasking the PY to provide the CDM with electronic COP data submitted via Configuration Data Managers Database-Open Architecture (CDMD-OA) work files.
- Monitor the progress of all ILS elements to ensure that action is being taken to rectify the deficiencies or reschedule its accomplishment. Subsection 8-3 provides detailed procedures.
- Evaluate the completeness and initiate follow-up action of deficient ILS products at the following critical milestones:
  - Signature of the SAR.
  - Receipt of the ILS Certification Form from the LCM/Procuring Activity.
  - Issuance of SIDs.
  - Receipt of the NSA’s availability ILS Status Report.
  - ILSMT Meetings.

  - Receipt of the EOA/EOI ILS Status (Exhibits S8-III thru S8-VII).
- Budget, tasking and fund the PY or designated activity to provide electronic COP data via CDMD-OA work files to the CDM and the NSA as determined by the SPM to provide Coordinated Shipboard Allowance List (COSAL)/Shipboard Non-Tactical ADP Program (SNAP) updating information during an availability.
- Develop and distribute an ILSP. The ILSP will define the roles and responsibilities of ILSMT members.
- Coordinate follow-up actions to correct ILS products deficiencies related to alterations based upon the NSA EOA/EOI ILS Verification.
- Conduct post-availability database audits as required by reference S8(e), to determine the effectiveness of the Ship Configuration and Logistics Support Information (SCLSI) process and to identify areas which may require improvement. An analysis of audit results may identify common problems or a specific problem with a ship class, shipyard or CDM.
- Ensure that requirements of this manual are accomplished by all participating activities. The SPM will tailor these requirements to fit specific availabilities and alterations accomplished by AITs. Requirements will be delineated in the appropriate tasking, contracts and ILSP.

8-2.3.2 Life Cycle Manager (LCM)

The LCM is the activity identified as having technical and logistics responsibility for a system, equipment and/or providing guidance, tasking and/or funding to an installing activity. An In-Service Engineering Agent (ISEA) may also be designated as a LCM. The LCM is responsible for:

- Identify and manage the technical and logistics requirements for assigned equipment through all of the life cycle phases.
- Plan and prepare alterations. This planning responsibility emphasizes the budgeting for ILS products specified in Subsection 8-3 and includes funds required for acquisition of hardware, software, Test Equipment (TE), training support package, preparation and submission of COP data, new or modified TMs, including system manuals, new or modified Planned Maintenance System (PMS) documentation, Installation and Checkout (I&C) spares, Maintenance Assistance Modules (MAMs), and Interim Supply Support (ISS) when required. Budgeting for this is the responsibility of the alteration sponsor. The TYCOM is responsible for ensuring that complete logistics support, in accordance with Subsection 8-3, is provided to the NSA, or is available to the ship, in the case of Manpower, Personnel and Training (MP&T) for all TYCOM funded alterations.
- The LCM, or his designated agent (e.g., ISEA), will ensure the technical and logistics adequacy of all assigned systems and equipment throughout its life cycle and will oversee the approval of all ILS products.
- Prepare an ILS Certification Form identifying the estimated delivery date for those items required to support the end product. The LCM should begin preparing the ILS Certification Form upon approval of the Justification/Cost Form (JCF). It is imperative to the FMP process that the problem areas be identified up-front to ensure that alteration installations are not scheduled prior to ILS Certification. Problem areas typically require careful monitoring to ensure that the first installation date stays on track. ILS products shall available by SOA and delivered by EOA/EOI or as required to support installation and testing, and these dates must be factored into the POA&M. The LCM should monitor and update the ILS Certification Form as individual elements are completed to maintain an accurate data point. The LCM or

designated agent shall be prepared to discuss with the SPM the overall ILS status from JCF approval to SPM ILS Certification.

- Provide a primary point of contact for coordinating ILS information and support and for the implementation of the requirements of this section.
- Review the ILS Certification Form to ensure that the proper level of ILS is being provided for cases where Naval Inventory Control Point-Mechanicsburg (NAVICP-M) or Defense Logistics Agency (DLA) procures non-standard FMP material or competes the reprocurement of an existing National Stock Number (NSN) item.
- The LCM is the engineering design agent for each system/equipment under their cognizance.

8-2.3.3 Planning Yard (PY)

The PY is responsible to the SPM for engineering in support of alteration development and for support to the NSA during alteration installation. The assigned PY for each ship class is typically the engineering Design Agent (DA) for alterations. As tasked by the SPM, the PY will update the Ship Selected Records (SSRs), as discussed in Appendix C to this manual. In addition, designated PYs have life-cycle responsibilities as CDMs for assigned ship classes.

8-2.3.4 Configuration Data Manager (CDM)

The CDM, under the direction of the SPM and NAVSEA 04L, has total responsibility to maintain the integrity of the Weapon Systems File (WSF)/SCLSI database, CDMD-OA and by extension, the integrity of the ship's SNAP database. The CDM is responsible for configuration identification, configuration verification and the Configuration Status Accounting (CSA) data elements within the WSF and maintaining and providing updated information for input to the ship's SNAP database. During the FMP process, the CDM will be responsible to process planning data prior to the availability, alteration installation data from the NSA and corrective data generated during the ILO review process. For a further description of the CDM responsibilities see Subsection 8-3.2 and reference S8(e).

Accuracy of the software configuration data being delivered to the CDM is the responsibility of the LCM or designated Software Support Activity (SSA)/ISEA submitting the data. The CDM will treat the data being submitted from the designated software Configuration Managers as trusted data.

8-2.3.5 Naval Supervising Activity (NSA)

The NSA is responsible to ensure that all ILS products are available as needed for alteration installation and checkout of systems and equipment. The Regional Maintenance and Modernization Coordination Office (RMMCO) shall assume the NSA responsibilities and functions for alteration installations occurring in non-CNO availabilities and when an NSA is not designated. At the completion of alteration installation and checkout, the NSA is responsible for ensuring that all ILS products required by the ship to support newly installed or modified systems/equipments is onboard at EOA/EOI. The NSA will provide the results of the Work Definition/Work Package Integration Conference to the CDM. ILS products required by the ship may be (but are not limited to) TMs, PMS Documentation, Special Purpose Electronic Test Equipment (SPETE), and Supply Support, including Allowance Parts Lists (APLs), Preliminary Allowance Lists (PALs), Advance Repairable Identification Codes (RICs), or non-standard Allowance Appendix Pages (AAPs) and associated ISS repair parts to support locally procured

non-standard equipment. ILS products not required to be turned over to the ship includes, but not limited to, I&C Spares and depot level special TE.

In those cases when the NSA acquires material, the NSA is responsible for procuring all required ILS products, as defined in Subsection 8-3, as well as the preparation of associated AAPs. The NSA is responsible for ensuring the delivery of all required ILS products including those involving coordination with an ILOLANT/FTSCPAC/ ILR team and the ship's CDM. This responsibility emphasizes tracking and verifying the logistics status of all alterations including those installed by AITs, and informing appropriate authorities of emergent ILS problems.

As directed by the SPM, the NSA will support ILSMT meetings for availabilities. This support may include providing ILS Status Reports prior to each ILSMT, providing minutes, action items and status to all participants, and scheduling and chairing ILSMT meetings when directed by the SPM.

The NSA will physically sight validate all alterations accomplished and report them to the CDM/ILO, unless the SPM tasks this requirement to another activity. Sight validation must include all equipment as it is installed and all permanently removed equipment. These changes will be reported to the CDM electronically using CDMD-OA work files. The SPM may task this validation and verification requirement to another activity.

When the NSA is a SUPSHIP, its personnel will perform the Industrial Work Package ILS Verification effort on a non-reimbursable basis. SUPSHIP will require reimbursable funding to support validation and ILS verification efforts for AIT installations not a part of the contracted work package under its cognizance as executing SUPSHIP. The NSA remains responsible for validation of data provided by other activities but is not expected to duplicate the efforts of those activities. Such data may be validated using statistical sampling techniques. If validation of data provided by other activities indicates a low degree of confidence, the NSA will report the details to the SPM for appropriate action. The NSA will complete and submit Exhibits S8-III through S8-VII.

8-2.3.6 Integrated Logistics Overhaul Atlantic Fleet (ILOLANT) /Fleet Technical Support Center Pacific (FTSCPAC) and Detachments

The ILOLANT/FTSCPAC will provide the facilities, support, training, and technical direction to accomplish a variety of configuration and logistics support services on ships during and after industrial availabilities and throughout the operational cycle. The level of support provided to the ship by the ILOLANT/FTSCPAC is dependent upon various conditions such as length of availability, COSAL effectiveness, and ship specific requirements.

An ILO is the process by which a ship's readiness is improved through training, and the audit analysis and correction of four ILO elements, i.e. the ship's configuration records, on-board TM library, PMS documentation and On Board Repair Parts (OBRPs) inventory. An ILO is traditionally conducted during an extended availability, such as a Regular or Complex Overhaul (ROH/COH). For shorter availability cycles, an ILR may be conducted. An ILR is a phased approach that includes a review of one or more of the four ILO elements.

Primary responsibilities of the ILOLANT/FTSCPAC include review, analysis and correction of the ship's existing configuration records and updating those records with accomplished alteration information. While the NSA is responsible for ensuring delivery of technical documentation, such as new TMs and PMS for newly installed equipment, ILOLANT/FTSCPAC is responsible for requisitioning all new OBRPs requirements when conducting an ILO with OBRPs offload, as well as for identifying and requisitioning OBRP deficiencies of the ship's existing supply inventory. During an ILR, it is ship's force responsibility to requisition new OBRPs requirements. Further, ILOLANT/FTSCPAC identifies and acquires TMs and PMS documentation deficient for non-alteration related equipment.

The ILOLANT/FTSCPAC will provide a report to the ship, SPM, TYCOM and the NSA of all ILS products that are on order but not received by EOA. This report will contain all information required to track status of back ordered items in accordance with reference S8(d). See this reference also for other ILO reports required at EOA.

Since the ILOLANT/FTSCPAC is the pivotal activity and must provide the ship with a complete ILS package at EOA, it is vital that close coordination and cooperation be maintained between the NSA, ILOLANT/FTSCPAC and the CDM. It is also essential that all parties involved strictly follow reference S8(d). This cooperative interface will assist the NSA with its verification responsibilities, provide the CDM with accurate information for updating the configuration database and enable ILOLANT/FTSCPAC to provide the ship with the most accurate and complete logistics support possible.

The ILOLANT/FTSCPAC will support ILSMT meetings by providing ILS Status information to the NSA in accordance with the SPM's ILSP.

8-2.3.7 Fleet Technical Support Centers (FTSCs)

FTSCs revise, print, stock, and distribute PMS documentation, including Maintenance Index Pages (MIPs) and Maintenance Requirements Cards (MRCs). When tasked and funded by the LCM or other activities, the FTSCs also develop PMS. They are also responsible for updating the List of Effective Pages (LOEP) based on configuration update information provided during the availability, which identifies all changes, and for providing these to the ship. The FTSCs may also have life cycle responsibilities as CDMs for designated ship classes.

8-2.3.8 Naval Sea Data Support Activity (NSDSA)

NSDSA provides Technical Manual Management Program (TMMP) support. NSDSA assigns a Technical Manual Identification Number (TMIN) to each new or revised manual; provides Technical Manual Contract/Seatask Requirements (TMCRs/TMSRs) to be used in procuring new or modified TMs; provides ship Indices of Technical Publications (ITPs), Battle Group ITPs, TM distribution lists and mailing labels, and coordinates stocking actions. NSDSA is responsible for maintaining the Technical Data Management Information System (TDMIS); an automated TM management information system.

8-2.3.9 NAVSEA 04 Logistics, Maintenance and Industrial Operations Directorate

NAVSEA 04 develops and integrates FMP, CM, supportability, and associated information technology to ensure the logistics adequacy of ships, systems and equipment. In this capacity

NAVSEA 04 will ensure compliance with the policy and procedures set forth in this section.

8-2.3.10 Naval Inventory Control Point–Mechanicsburg (NAVICP-M)

NAVICP-M works with the LCM/ISEA/Technical Support Activity (TSA) to ensure that all FMP material managed under their cognizance is fully supported logistically to include TMs, drawings, OBRPs and APLs. NAVICP-M provides logistics support for non-standard alteration material programmed in the Navy Data Environment-Navy Modernization (NDE-NM), formerly the Fleet Modernization Program Management Information System (FMPMIS), and cataloged for NAVICP-M cognizance when competitively reprocuring standard material. The NAVICP-M SHIPALT Program Manager is the NAVICP-M central point of contact for the purposes of identifying and monitoring SHIPALT logistics support. NAVICP-M, working with the LCM/ISEA/TSA, will ensure that each element is being accomplished on schedule, or that appropriate action is being taken to rectify deficiencies. For all Hull, Mechanical and Electrical (HM&E) systems and equipment for which NAVICP-M assumes cognizance as the result of NDE-NM programming, NAVICP-M will provide an ILS Certification Form to the SPM.

When NAVICP-M cannot provide material support for an alteration's first-time installation due to late programming, a non-support letter will be forwarded to the SPM and the PY. Such non-supported equipment will be the focus of the SPM A-12 ILS Review during subsequent alteration installations.

NAVICP-M performs the following ILS and CM functions:

- Uses the Allowance Control Panel (ACP) as the authoritative source for all allowance products requirements.
- Accepts configuration updates from CDMs.
- Provisions and builds APLs using provisioning received from the TSA as an integral part of its Supply Support Logistics Element Manager (LEM) functions.
- Forwards allowance products as directed by the TYCOM.

8-2.3.11 Fleet and Industrial Supply Center (FISC) Puget Sound

FISC Puget Sound is NAVSEA 04L's COSAL allotment outfitting Technical Operating Budget (Other Procurement, Navy Budget) holder and serves as the point of entry where initial outfitting requisitions are submitted. FISC Puget Sound advises the appropriate SPM, TYCOM, and NAVSEA 04L when funding is not available to submit NAVSEA outfitting requisitions into the Federal Supply System (FSS).

8-2.3.12 Type Commanders (TYCOMs)

The TYCOMs responsibilities are:

- Coordinate actions in support of all alterations authorized and funded by the TYCOM. The planning responsibility emphasizes budgeting for the ILS products specified in Subsection 8-1.4 and includes funds required for the acquisition of hardware, software, TE, new or modified TMs including system manuals, new or modified PMS documentation, I&C spares, MAMs, ISS, Technical Training Equipment (TTE), and ensure MP&T is available to the ship, as required. The TYCOM is responsible for ensuring that complete logistics support, as described in Subsection 8-3, is provided for all TYCOM funded alterations.
- Ensure alterations are reported and appropriate ILS products are obtained for alterations

resulting from maintenance actions. This requirement includes all changes resulting from alterations performed by Intermediate Maintenance Activities (SIMAs, IMAs, etc).

- Use the ILS Certification Form to follow-up on deficient ILS products.
- Direct NAVICP-M when and where to forward ship allowance products.
- Participate in the ILSMT.

8-2.3.13 In-Service Engineering Agents (ISEAs)

The ISEAs, as tasked and funded, are responsible for:

- Combat system/weapon system/HM&E/Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4/ISR) technical, engineering and logistics support for assigned systems.
- Provide a POA&M for delivery of required ILS products to the LCM.
- Submit planning data to the CDM for alterations planned during an availability via the SCLSI process in accordance with reference S8(e).
- PMS
  - Identify PMS requirements to the LCM during alteration development and determining if new PMS development or revision to existing PMS will be the most cost effective means to provide appropriate PMS products to the ship.
  - Provide Cost and Development/Revision Time estimates to the LCM.
  - Develop/revising existing PMS and providing them the FTSC for distribution.
  - Technically validate/approve PMS procured by NAVICP-M for non-standard alteration material or competitive reprocurement of standard material.
- Technical Manuals (TMs)
  - Identify TMs to the LCM during alteration development and as a result of other changes to ship's configuration.
  - Determine if new TM development or revision to existing TMs will be the most cost effective means to provide appropriate TM coverage.
  - Provide Cost and Development/Revision Time estimates to the LCM.
  - Develop/revise existing TMs and providing them for distribution.
  - Technically validate/approve TMs procured by NAVICP-M for non-standard alteration material or competitive reprocurement of standard material.
- Operational Sequencing System (OSS)
  - Identify OSS requirements to the LCM during alteration development and as a result of any other changes to ship's configuration.
  - Provide Cost and Development/Revision Time estimates to the LCM.
  - Provide assessments of ability to deliver to the LCM.
  - Develop/revise existing OSS and distributing it to the affected ships.
- Provisioning and Supply Support
  - See TSA, Subsection 8-2.3.14.

8-2.3.14 Technical Support Activity (TSA)

The TSA is the NAVSEA engineering activity that validates and generates the technical and engineering data and decisions of the provisioning process. The TSA is usually, but not always, the ISEA. The TSA is responsible for:

- Identify Supply Support requirements during alteration development and, as a result of any other changes to the ship's configuration, determine if new APL development or revision to existing APL will be the most cost effective means to provide appropriate OBRP support for any other change to the ship's configuration.
- Provide Cost and Development/Revision Time estimates.
- Receiving PTD from the system or equipment manufacturer, system integrator, Navy Industrial Facility, or NSA for review and acceptance or rejection. Acceptance or rejection will be based on the adequacy of the PTD to complete provisioning.
- Verify or completing technical coding of PTD in accordance with the maintenance plan.
- Determine Supply Support configuration/APL worthiness.
- Forward approved PTD to NAVICP-M for further processing.
- Provide provisioning status as required.
- Review APLs developed as a result of provisioning and coordinating corrections/updates with NAVICP-M.
- Reflect the Supply Support methodology through the assignment of the Logistic Support Status Codes (LSSCs).

8-2.3.15 Regional Maintenance and Modernization Coordination Office (RMMCO)

The RMMCO is a Fleet activity responsible for providing coordination and integration of SPM/Fleet approved alterations into non-CNO availabilities for platforms under their regional cognizance. The RMMCO is responsible for:

- Act as AIT gatekeeper to the ships.
- Assume NSA responsibilities and functions for alterations installed during non-CNO availabilities and for alterations installed when a NSA is not designated.
- Verify TYCOM/Commander In Chief (CINC) approval of scheduled alterations.
- Coordinate with the NAVSEA Alteration Management Planning-Field Coordination Office (AMP-FCO) to ensure maturity of alterations delivered to the Fleet.
- Provide all AIT government sponsors and their AIT a common, well-defined set of procedures for conducting ship modernization via AIT.
- Provide each ship Commanding Officer in the region a single point of contact for all modernization issues.
- Integrate installation teams with ship's maintenance schedules.
- Act as Fleet/TYCOM agent and single point of contact between ship, AIT, alteration sponsors and fleet/TYCOM representatives in facilitation, resolution and report Fleet AIT/modernization issues.
- Ensure the Fleet receives fully supported and mature alterations, including required ILS products.

SUBSECTION 8-3 LOGISTICS SUPPORT ELEMENTS AND MILESTONES

8-3.1 Scope

This subsection contains the critical milestones required for accomplishment of each ILS element. Milestone charts for Configuration Data Management, Supply Support, Technical Manuals, Support Equipment, Maintenance Requirements, and Training Support are presented as well as a narrative step-by-step description of the process. The milestones are applicable to all alterations.

Program documentation for ORDALTs, ECs, FCs and other alterations is prepared and approved by the LCM, SPM or ISEA. For procedures on preparation of these documents refer to Section 9 of this manual. It is the responsibility of the LCM to ensure that program documentation (i.e. SARs, ORDALT Instructions, etc.) for all alterations under their cognizance completely and accurately address the ILS impacts of the alteration.

8-3.2 Configuration Data Management

8-3.2.1 Scope

This subsection details the procedures for ensuring that all alterations occurring as a result of the FMP process are properly and completely recorded and logistically supported.

8-3.2.2 Background

Reference S8(e) is the official US Navy policy for CSA for US Navy ships. The concept is a closed-loop process that utilizes the 3-M reporting system, periodic ship equipment validations, a CDM that is responsible for the accuracy and integrity of the ship's configuration database, and refreshment of the SNAP database.

Configuration Data Management is an ongoing effort performed by an assigned CDM. CDMs work under the direction of the SPM and NAVSEA 04L. They are assigned by ship class and are responsible for the integrity and accuracy of the SCLSI database. The SCLSI database is contained in the CDMD-OA. For detailed responsibilities of the CDMs see reference S8(e).

The following paragraphs describe a recommended timeline from A-12 through EOA+4. This timeline includes the initial database validation and reconciliation efforts. It is recognized that this timeline will not accommodate all ship classes, availabilities or circumstances; so it should be used as a guide and checklist rather than a definitive description of events within specific time periods.

8-3.2.3 SHIPALT Authorization Letter and COP Funding

At A-12, the SPM will issue the SHIPALT Authorization Letter to the PY or designated activity, with copies to the CDM (see Section 10 of this manual) and will task and fund the PY to provide the CDM with COP data. Depending upon availability of funds and the complexity of the availability, COP data submission shall encompass full data elements including the required research to provide APL numbers and all applicable logistics Type 3 data elements as specified

in reference S8(e). However, COP must provide the minimum data elements necessary for the CDM to produce credible data for the SCLSI database and Preliminary Installation Report (PIR) for the NSA.

For AIT installations occurring during an availability, but not part of the availability work package, or outside of an availability, the LCM/ISEA or the designated representative shall submit configuration planning data to the CDM no later than 30 days prior to installation.

8-3.2.4 In-Service Engineering Agent (ISEA) Planning Data

At approximately A-12, the ISEA will begin COP data submission to the CDM for alterations planned during the availability, to include any AIT installations, with final submission no later than A-2 to A-0.5. The ISEA is the technical expert responsible for specific systems and, as such, is in the best position to provide the PY with the information needed to assure accurate and complete planning data.

8-3.2.5 PY Begins COP Data Preparation and Submission

At A-10, the PY or designated activity will prepare the COP Milestone Plan and begin the review of the drawing schedule for the availability. For all alterations in the Work Package, the PY should begin submission of digitized COP data by A-6 with final submission no later than A-2 to A-0.5.

8-3.2.6 CDM Evaluates Milestone Plan and Pre-loads COP Data

At A-10, the CDM evaluates the COP Milestone Plan and recommends a Configuration Quality Review (CQR) to the SPM/TYCOM. When the CDM receives COP data from the PY by A-6, the CDM shall pre-load the ship's configuration and/or alteration records in the CDMD-OA. Before A-2, the CDM will ensure the ship configuration records for unconfirmed planned alterations (Installation/Alteration Status Codes (ISC/ASC) of "J"), to include those submitted by the ISEAs, are loaded in the CDMD-OA (SCLSI) database. After the receipt of final COP data in the Work Package, but no later than A-2, the CDM will change the ISC/ASC "J" ship's configuration records with ISC/ASC to "P" for confirmed planned alterations. For planned deletes, the CDM will ensure that the ship's configuration records contain ISC/ASC "E" or "N".

8-3.2.7 Reconciliation of Databases

At A-4 through A-0.5, the TYCOM will request a copy of the SNAP configuration database (Equipment [EQU] file) from the ship. The EQU file is provided to the CDM via Revised Alternative Dataflow (RAD) for automatic loading into the Database Reconciliation (DBR) module within CDMD-OA. This file is compared/reconciled with the SCLSI database. At A-3, the CDM will produce hardcopy Validation Aids (VALAIDs) to validate differences between configuration items in the EQU file and the SCLSI database. The candidate work file will be replicated onto CDMD-OA Central to permit ILOLANT/FTSCPAC view access to see what actions were taken by the CDM and to identify transactions for validations. Activities designated by the SPM or TYCOM will conduct validations.

By A-1, the CDM will update the SCLSI database with the results of this validation. This

reconciliation of databases is the beginning of the CQR Process. The time frames referenced are flexible and should be used as guidelines. Validations must be performed at the discretion of the SPM/TYCOM at the ship's convenience, may be accomplished incrementally but shall be documented in the CDMD-OA validation field. For submarines, the validation effort will be completed prior to the start of COP submissions. However, validations can take place up to the cut off date for allowance documentation production or A-0.5, whichever is later.

8-3.2.8 SCLSI Database Update with COP Data

The PY and LCM/ISEA will provide digital input of the results of the Work Definition/Work Package Integration Conference to the CDM. At A-3 to A-0.5 (or as soon as the PY begins submission of COP data) the CDM will begin updating the SCLSI database. In no case will the beginning of the SCLSI update be delayed past A-2.

8-3.2.9 Final COP and Planning Data Submission

At A-2, the PY and the LCM/ISEA will submit final COP and planning data for all alterations scheduled during the availability to the CDM. The A-2 COP data cutoff date is designed to meet any COSAL production cycle date. The SPM has the option of extending this cutoff date until A-0.5.

8-3.2.10 Final Pre-COSAL COP Update to SCLSI Database

At A-0.5, the CDM will submit the final SCLSI database update. This milestone date is critical and cannot be slipped without serious impact to the ILO process. The A-0.5 milestone marks the beginning of a lock-step process of database and hardcopy COSAL production that may take place over the following three months. If the PY performing COP is also the CDM, the final COP data must be submitted by the last Monday of the A-0.5 month. If the PY is not the CDM, the final COP submission must he made to the CDM by the first week of the A-0.5 month. In the event that the PY completes or changes any COP data after A-0.5, the data should be submitted to the CDM as soon as possible. The PYs must make vigorous efforts to complete all design planning and COP data prior to the Final Pre-COSAL submission cutoff date, particularly for any ship whose availability is less than nine months duration.

8-3.2.11 Start Of Availability (SOA)

The NSA or other SPM designated activity will begin its review of the ship's configuration and ILS products in accordance with reference S8(d). The purpose of this review is to identify and correct deficiencies in ILS products and correct configuration record errors. ILOLANT/FTSCPAC or the SPM designated agent will take necessary action to resolve ILS products deficiencies. Corrections to the ship's configuration database will be forwarded to the CDM. In addition, the availability/review period will be used to accomplish validations on newly installed/inaccessible equipments that were not validated during the ship's operating cycle.

The CDM will prepare planned alterations inputs and notify the NSA/ILOLANT/FTSCPAC of completion. As installation/rip-out is completed, the NSA will submit updated records to the CDM via CDMD-OA, including location information. The NSA will utilize SCLSI to notify the

CDM of any emergent or unplanned work by submitting an electronic workfile, via CDMD-OA, with the required data. Specific data elements are required in order to build a configuration and logistics record within the SCLSI database, and ultimately to properly support the ship. The NSA or the SPM designated agent validates all installed equipment and reports accomplished alterations via CDMD-OA providing additional information (such as, serial numbers, locations, etc).

Standard data elements on these reports are critical for continuity and completeness in configuration data management. Reference S8(e) contains the requirements for the individual data elements.

If no ILO Team is involved with the availability, CSA will continue through dialogue between the CDM and the NSA/ILR. Updates to the ship's SNAP/COSAL will be accomplished using the Automated Shore Interface (ASI) process/preliminary and hardcopy APLs.

8-3.2.12 End Of Availability (EOA)

At EOA, the NSA shall list the status of all alterations for which they are responsible as identified in the A-60 days notification letter and any emergent alterations in the EOA Completion Report outlined in Subsection 8-2.3.5. The NSA is also responsible for verification of delivery of all required ILS products. The NSA will validate/verify alteration accomplishment and report the change of the ASC/ISC to the CDM electronically via CDMD-OA. The CDM will indicate completion in CDMD-OA with the use of ASC/ISC of "D"/"G".

At EOA, the ILOLANT/FTSCPAC will provide an updated SNAP database. The ILO Team will also provide all outstanding requisitions, an intermediate list of applicable TMs, all required PMS documentation and an updated LOEP.

TABLE S8-3.2: ACTION STEPS AND MILESTONES FOR CONFIGURATION DATA MANAGEMENT

Para Ref	Time Frame	Action Required	Who is Responsible?	What is Produced?	To Whom Does It Go?
8-3.2.3	A-12	Issue SHIPALT Authorization Letter/COP Letter	SPM	SHIPALT Authorization Funding Letter	PY/NSA/ CDM
8-3.2.4	A-12	Commence Planning Data Submission (Note1)	LCM/ISEAs	Systems Planning Data	CDM
8-3.2.5	A-10	Prepare COP Milestone Plan/ Begin COP Preparation	PY/ Designated Activity	Milestone Plan for COP Submission	SPM/CDM
8-3.2.6	A-10	Evaluate COP Milestone Plan	CDM	Recommend the Need to Conduct CQR	SPM/ TYCOM
8-3.2.6	A-10 to A-6	Begin COP Data Submission	PY	COP Data	CDM
8-3.2.7	A-4 to A-0.5	Request EQU	TYCOM/ILO/ FTSC	EQU File	CDM
8-3.2.7	A-4 to A-0.5	Database Reconciliation/CQR Process	CDM	Validated CDMD-OA/VALAIDs	CDMD-OA
8-3.2.8	A-4	Provide Results of Work Definition Conference/ Work Package Integration Conference	PY/LCM/ ISEA	Approved Work Package	CDM
8-3.2.8	A-3 to A-0.5	Release COP to SCLSI Database	CDM	SCLSI Database Update	SCLSI Database
8-3.2.9	A-2	Submit Final COP and Planning Data	PY/ISEA/ LCM	Final COP Data	CDM
8-3.2.10	A-0.5	Submit Final SCLSI Database Update	CDM	Updated SCLSI Database	SCLSI Database
8-3.2.11	SOA to EOA	Configuration and Logistics Review	ILO Team	Deficient ILS Requisitions/ Configuration Record Error Corrections	FISC/CDM
8-3.2.11	SOA	Forward PIR Package (can be electronic)	CDM	PIRs	NSA/ ILO TEAM
8-3.2.11	SOA to EOA	Report completion of alterations via CDMD-OA	NSA	Updated SCLSI Database	CDM
8-3.2.12	EOA	Provide Updated SNAP Database/ EOA/EOI ILS Products	ILO TEAM/ NSA	Updated SNAP Database; Updated list of TMs, PMS, and LOEP	Ship

Note 1. This applies to AIT installations not part of the Work Package.

8-3.3 Supply Support

8-3.3.1 Scope

This subsection addresses the ILS processes related to identifying, documenting, acquiring, and distributing the spare and repair parts required to operate and maintain newly installed or modified systems and equipment in accordance with the maintenance philosophy.

8-3.3.2 Background

The activity that procures a system or equipment that requires maintenance at any level (i.e., Organizational, Intermediate, or Depot (O, I, or D)) is responsible for establishing Supply Support. This includes funding the procurement of PTD and the review or development and technical coding of the provisioning data by the TSA. Provisioning involves the processing of PTD, which is used for determining, identifying, and documenting the range and depth of OBRPs. Planning and programming, by Systems Commands (SYSCOMs) and their field activities, include the negotiation of a Material Support Date (MSD) which establishes the time that the FSS will assume responsibility for Supply Support; and, the preparation of Program Support Data (PSD) sheets which establish requirements and funding schedules. Fitting Out is the process of obtaining and delivering spare and repair parts on board. For additional information regarding the following subjects refer to reference S8(f) at http://www.nslc.navsea.navy.mil/nslcprod/pafos.nsf.

8-3.3.3 Provisioning

Provisioning is accomplished for equipment/systems that will require support at either the O, I or D levels of maintenance in accordance with the maintenance philosophy. The information required for provisioning is obtained from the PTD. PTD is the generic term used for various types of data which may include, but is not limited to, provisioning data files, provisioning lists, specifications and Engineering Data For Provisioning (EDFP) (drawings and supporting documentation) which is bought from an equipment manufacturer. Provisioning data describes each part within a system/equipment in sufficient detail to enable the Navy to: make supportability and maintainability decisions; catalog piece parts; and procure OBRPs and maintain wholesale spares stock.

Sponsoring/installing activities shall acquire PTD from hardware manufacturers and submit it to the TSA via Interactive Computer-Aided Provisioning System (ICAPS). TSAs are NAVSEA engineering activities that perform the technical and engineering functions associated with the provisioning of a system or equipment. The activity sponsoring the alteration will task and fund the TSAs to receive and review/develop PTD. The designated NAVSEA TSA for Contractor Furnished Equipment (CFE) is Naval Surface Warfare Center, Carderock Division-Ship Systems Engineering Station (NSWCCD-SSES). For Government Furnished Equipment (GFE), the activity that performs the ISEA function usually performs the TSA function for the same system/equipment. NSWCCD-SSES will provide assistance with identifying a GFE TSA if assistance is required. After completion of the technical review and coding, the TSA will submit PTD to NAVICP-M via the ICAPS for completion of provisioning, which includes loading of level “C” data to the WSF, developing APLs, and establishing the range and depth allowances based on Navy approved sparing models.

8-3.3.3.1 Provisioning Requirements

8-3.3.3.1.1 Repair Contracts

Use the Standard Item for Provisioning (SI 009-19) as available from http://www.supship.navy.mil/ssrac4/nsi/01nsi/009-19_ch1.html

8-3.3.3.1.2 Overhaul/Availability Contracts

Use the requirements package available from https://945ntser.navsses.navy.mil/SL121-AB-LPS-010.pdf.

8-3.3.3.1.3 Government Furnished Equipment (GFE) Contracts

For GFE, contact the TSA and NAVICP-M to establish a team to develop the requirements for each contract.

8-3.3.3.1.4 Fleet Procurements

For procurements made by the Fleet, a commercial manual with parts list, plus any other provisioning data and drawings available, must be obtained from the manufacturer/vendor and provided to the TSA for provisioning and APL development.

8-3.3.4 Planning and Programming

8-3.3.4.1 Material Support Date (MSD)

The MSD is the date when the FSS is responsible for providing material support for both retail outfitting and wholesale requirements. Retail outfitting requirements are the items procured and placed onboard ships as initial outfitting items. Wholesale spares requirements are those items stocked and managed by the FSS to be used to replace failed shipboard allowance items.

LCMs/SPMs will negotiate with NAVICP-M to establish MSDs for all systems and equipment being introduced into the Fleet. If MSD occurs after EOA, Fast Cruise or Preliminary Operational Capability (POC), which ever occurs first, ISS must be provided in accordance with Subsection 8-3.3.5.

8-3.3.4.2 Program Support Data (PSD)

PSD will be prepared and submitted only for GFE procured end items or alterations that require OBRP support, including Just-In-Time Support (JITS), Performance Based Logistics (PBL), etc. It will also be prepared and submitted for CFE specifically designated as Mission Critical or equipment, which requires spares costing more than $100K per year by joint determination of the LCM and NAVICP-M. PSD includes the number of end item installations, installation sites (including training facilities), alteration schedules and annual cost projections for OBRPs. A new PSD must be created for equipment changes and any alterations that will result in changes to established Supply Support requirements. PSD provides the basis for: budgeting initial, interim, and follow-on spares; and is used as input into the Program Objectives Memorandum (POM) and the Future Year Defense Plan (FYDP) preparation. PSD is used by NAVICP-M to establish Planned Program Requirements (PPRs). Subsection 8-2.3.10 contains an explanation of NAVICP-M's responsibilities as a procuring activity. LCMs will enter required data into the Program Support Data Automated Reporting and Tracking System (PARTS). NAVSEA 04L is

the system manager for PARTS and will periodically forward PARTS data to NAVICP-M. NAVSEA 04L will also provide training and assistance to LCMs in entering PARTS data. For more information about PARTS, refer to the PARTS website at http://www.partsweb.navsea.navy.mil.

8-3.3.5 Interim Supply Support (ISS)

ISS is required when a system or equipment cannot be supported by POC and OBRPs support must be provided outside of the FSS. It is also required when the FSS cannot provide OBRPs support for an equipment or system at POC. LCMs procure required OBRPs until MSD is achieved. Reference S8(f) Chapter 5 provides policy, procedures and responsibilities for providing ISS. LCMs shall include a Provisioned Item Order (PIO) option clause as a separate line item in hardware acquisition contracts to provide a contract vehicle for the Government to procure Wholesale stock level material from prime hardware manufacturers.

For systems or equipment requiring ISS, LCMs/procuring activities will require hardware manufacturers to provide an Interim Support Items List (ISIL) containing recommended OBRPs for the designated interim support period. No later than A-4, TSAs will process the ISIL into ICAPS for files loading into the WSF in accordance with the guidance for PALs in reference S8(f) Chapter 4. ISS material will be assigned a “0” (zero) cognizance symbol as a discrete identifier for interim support material. Sparing requirements for OBRPs will be determined by using the Navy approved sparing computation models. Items with existing NSNs will be supported by the FSS and only the new, non-standard items will be supported by ISS. In addition, the LCM will provide a list of MAMs procured directly from the hardware manufacturer, using the PIO option, to the SPM, TSA, ILO Team, ship, NSA and NAVICP-M.

Under ISS, the procuring activity will coordinate with NAVSEA 04L to provide information on whether OBRPs will be positioned in a bonded warehouse operated by the ISEA, commercial vendor, the hardware manufacturer, or in a central warehouse operated by NAVSEA 04L. Each bonded warehouse will be assigned a Unit Identification Code (UIC) and a Routing Identifier Code for requisition and inventory purposes.

8-3.3.6 Advance Repairable Identification Codes (RICs)

The Advance RIC process shall be initiated for all equipment that will not have provisioning submitted to NAVICP-M prior to alteration installation no later than A-4. While the Advance RIC process does not eliminate the need to develop AAPs, the procedure will allow the AAP and the equipment it represents to be identified with an actual RIC in the ship’s CSA file as opposed to a pseudo RIC that has been used in the past. This will allow ships to receive identification of OBRPs requirements via ASI for SNAP ships, and Automated Monthly COSAL Maintenance Action Report (Auto-MCMAR) as the final provisioning process is completed and the APL is generated.

8-3.3.7 Procure Installation and Checkout (I&C) Material

LCMs are responsible for the acquisition of all required I&C material. LCMs will require hardware contractors to provide a listing of material, special tools and special TE required for I&C. Parts assigned a NSN will be requisitioned through the FSS. LCMs may include an optional line item in the hardware contract for I&C material not available through the FSS. I&C

material will be packaged separately as a kit and clearly marked to ensure proper receipt and control, and will be shipped concurrently with the system/equipment to the NSA. The LCM, or designated representative, will ship Special Tools and TE, packaged separately and clearly marked for receipt, to the NSA on an as required basis. I&Cs will also be shipped to the ISEA, which will assemble complete kits from contractor and FSS shipments. Complete kits will be shipped to the NSA on an as needed basis. Any residual I&C material will be returned to the ISEA for disposition using Material Turned Into Stores (MTIS) ashore procedures.

8-3.3.8 Fitting Out

8-3.3.8.1 Initiate Procurement of On Board Repair Parts (OBRPs)

For standard items identified by NSNs, NAVICP-M will assign an Inventory Manager and establish PPRs for system or equipment outfitting and system stock. NAVICP-M will initiate procurement of required OBRPs prior to the SOA. NAVICP-M will forward FMP requirements for items under the cognizance of other Inventory Control Points (ICPs) to request adequate stock availability of those items in the FSS.

For non-standard items supported through interim means, LCMs will invoke the PIO option in the hardware contract to procure OBRPs. These parts should be positioned, until requisitioned, in a centralized staging facility operated by NAVSEA in order to avoid the proliferation of multiple program stock points. However, if a Program Manager decides to establish a program-unique stock point, they will need to notify NAVSEA 04L to ensure that the facility has the capability to make assets visible and accessible for the purpose of processing Military Standard Requisitioning and Issue Procedures (MILSTRIP) requisitions.

8-3.3.8.2 Establish Supply Support Availability

At A-12, the LCM will verify the availability of OBRPs at the time of alteration installation by completing the required portions of the ILS Certification Form. In the event of Supply Support deficiencies at A-12, the LCM will review the status of Supply Support development and provide an A-12 status review update to the SPM at A-4, although this is a continuous review and update process. The LCM will notify the SPM/CDM of any on-going deficiencies, including those resulting from design or equipment alterations.

8-3.3.8.3 Requisition On Board Repair Parts (OBRPs)

Ship's Force is responsible for requisitioning OBRPs during an availability. ILOLANT/FTSCPAC will interface with the ship as needed to ensure all requisition shortages resulting from ASI processing during the availability are generated and submitted. For submarines going through Depot Modernization Period (DMP)/ROH when all OBRPs are offloaded, the ILO Team will identify all inventory deficiencies and submit requisitions using standard ILO procedures specified in reference S8(d). For OBRPs supported by ISS, NAVICP-M will forward requisitions to the appropriate contractor/activity. For ISS staged under the Push-to-Pull Program, the Outfit Support Activity (OSA) will forward those requisitions to the NAVSEA Staging Facility.

If no ILO/ILR is established for an availability, the NSA or designated activity will provide the ship with alteration data, appropriate allowance lists and supply aids to assist the ship's Supply

Officer in requisitioning the required OBRPs.

8-3.3.8.4 Receive On Board Repair Parts (OBRPs)
The responsibility for receipt of stock replenishment OBRPs during an availability has shifted from ILOLANT/FTSCPAC to the shipboard supply department for COMNAVSURFLANT/PAC ships. This is due to repair part analysis functions no longer being accomplished during an availability. For submarines going through DMP/ROH when all OBRPs are offloaded, the ILOLANT/FTSCPAC will maintain a file of outstanding requisitions. As material is received, the file will be updated. At EOA, a copy of the outstanding file will be forwarded to the NSA and the ship's Supply Officer.

8-3.3.8.5 Verify Supply Support
At EOA+1, the NSA, supported by ILOLANT/FTSCPAC, will verify to the SPM that the installed configuration supporting the availability is resident in CDMD-OA and the shipboard SNAP system. Accurate configuration drives the allowed OBRPs onboard via the ASI process. For COMNAVSURFLANT/PAC ships, the ship's Supply Department requisitions the allowed OBRPs resulting from the ASI process during an availability.

For submarines going through DMP/ROH when all repair parts are offloaded ILOLANT/FTSCPAC will assure that the required OBRPs have been provided to the ship for all changes made during the availability. Copies of the verification forms (Exhibits S8-III thru S8-VII) will be provided to the SPM, PY, ship, TYCOM, and CDM.

TABLE S8-3.3: ACTION STEPS AND MILESTONES FOR SUPPLY SUPPORT

Para Ref	Time Frame	Action Required	Who is Responsible?	What is Produced?	To Whom Does It Go?
8-3.3.3	*	Provide PTD	Procuring Activity/LCM	APLs and Supply Support	NAVICP via the TSA
8-3.3.4.1	**	Negotiate MSD	LCM/ISEA/ NAVICP	MSD for System/ Equipment	NAVICP
8-3.3.4.2	** ***	Provide PSD	LCM/ISEA	PSD Sheets**	NAVICP NAVSEA 04L
8-3.3.5	A-4	PAL Development	ISEA/TSA	PALs/Interim Support Allowances	NAVICP
8-3.3.5	POC until MSD	Provide Interim Supply Support	Procuring Activity/LCM	Interim OBRPs Requisitions/ Bonded Warehouse Positioning	Contractor/ NAVSEA 04L
8-3.3.6	A-4	Advance RIC Development	ISEA/TSA	Advance APL Numbers	NAVICP
8-3.3.7	SOA-PLT	Procure I&C Spares	LCM	I&C Spares	ISEA/NSA
8-3.3.8.1	SOA-PLT	Initiate Procurement of Spare and Repair Parts	NAVICP/LCM	PIO/PPR/SPR	Contractor/Navy and DLA Stock Points
8-3.3.8.2	A-12 to A-4	Establish Supply Support Availability	LCM	ILS Certification Form	SPM/CDM
8-3.3.8.3	SOA to EOA	Requisition Repair Parts	ILO Team/Ship's Force	Repair Parts	Supply System/ Contractor/ NAVSEA Staging Facility

* = Hardware procurement plus 90 days
**= As soon as requirement is identified.
*** = PSD Sheets entered in PARTS. NAVSEA 04L transmit data to NAVICP
PLT = Procurement Lead Time (includes both production and administrative lead times)

8-3.4 Technical Manuals (TMs)

8-3.4.1 Scope

This subsection addresses the acquisition and management of TMs including those publications, revisions and changes necessary to conduct operations, repair and overhaul of systems and equipment as it applies to the FMP. For all alterations installed under the FMP, the LCM is responsible for the timely identification of TM deficiencies and the acquisition and delivery of accurate new or changed TMs to the fleet. The NAVSEA TM Update Program establishes responsibility for the maintenance of the TM by designating a single Technical Manual Maintenance Activity (TMMA) for each ship set of TMs as follows:

- Ordnance and Electronic TMs
  - LCM/ISEA
- HM&E TMs
  - Selected TMs reserved by NAVSEA Directorate/LCM
  - PYs assigned selected TMs
  - All HM&E equipment TMs are assigned to NSWCCD-SSES

As specified in S8(g), activities are required to provide one copy of each TM produced to the NSDSA, Port Hueneme, CA. In addition, TMMAs are required to maintain the accuracy of all related TM data in the TDMIS managed by the NSDSA.

For purposes of identifying responsibilities and procedures, Maintenance Standard (MS) TMs are to be developed, changed or revised using the same criteria as would apply to all other TMs.

8-3.4.2 TM Impact Identified

At A-12, in conjunction with the development of a SAR, the PY will identify TM impacts.

8-3.4.3 New TM Development, Changes or Revisions Tasked

At A-12, based on the contents of the SAR, Engineering Change Proposals (ECPs) or other supporting information, the LCM verifies the TM requirements and begins acquisition. The task statements must include a specific completion date that will ensure delivery of the TMs to the NSA by the SOA. New TM development, changes or revisions can be accomplished by the LCM, by the cognizant ISEA/TMMA or through contractor support. The TMMA shall be funded to review and approve all contractor developed or revised TMs. Reference S8(g) requires that a TMCR (or a TMSR for in-house efforts) must be used for all TM acquisitions. TMCRs/TMSRs can be obtained from NSDSA. TMINs will be requested for all new, revised, and changed TMs, by either the LCM or their designated agent, using a TMIN Request (TMIN-R) NAVSEA Form 4160/5 as cited in reference S8(g), or submitted via TDMIS.

When requesting a TMIN for a change package that is based on an alteration, it is essential that data in Block 17 (Equipment Applicability Information) and Block 19 (Applicable Alterations/Modifications) be provided.

TMINs shall be assigned for all TMs, including COTS TMs. Any COTS manuals that do not meet the requirements of reference S8(g) will require the development of

supplementary information.

8-3.4.4 TM Availability Established

At A-12, the LCM will identify the applicable TM numbers/revisions/changes that will support the planned alteration installation and that will be available by SOA. The LCM provides the information to the SPM/CDM/ISEA on the ILS Certification Form as part of the Logistics Review Process (LRP) or SPM ILS Status Review.

8-3.4.5 TM Availability Status Review Follow-up

At A-4, the SPM will request a full status review of all TMs that were not identified as available during the SPM A-12 ILS Status Review. The LCM will forward this information to the SPM/CDM.

8-3.4.6 Request Index of Technical Publications (ITP)

At A-2, the NSA requests TM data supporting the EOA configuration from NSDSA. These products are based upon SCLSI/WSF configuration data, and will reflect the ship configuration available at A-1.

NSDSA maintains the TDMIS. NSDSA will provide products from TDMIS to the FTSCs, ILO Teams, PYs, and NSAs in support of their missions. These products can include the ITP and SOA products for a specific ship, such as:

- Publications Deficiency Report
- Projected EOA Inventory
- Set of Publications Data Sheets
- Equipment not supported by Publications Report (RIC sequence)
- Equipment not supported by Publications Report (Hierarchical Structure Code (HSC) sequence)
- Standard Data Interface Format (SDIF) File (Electronic) For TECHMANPRO
- Automated Distribution List
- APL/Allowance Equipage Lists (AELs)
- Reports which correlate TMs to equipment configuration by hull

8-3.4.7 SOA Work Package Delivered

At A-1, NSDSA provides a SOA Work Package of TM data to the ILOLANT/FTSCPAC in support of a scheduled Technical Manual Analysis Group (TAG). In their package, NSDSA will identify all TMs required to support the ship. The ILOLANT/FTSCPAC uses this Work Package to conduct their review of the ship's TM library. Using ILO procedures contained in reference S8(d), the ILO/ILR Team will review the ship's on-hand TMs to ensure applicability, current update and completeness if directed by the TYCOM.

8-3.4.8 Ship's TMs Delivered

The LCM will ensure that all TMs supporting the availability are delivered by the TMMA/ISEA to the NSA by SOA. At EOA+1, the NSA will verify that all TMs applicable to equipments installed during the availability have been provided to the ship for inclusion in the ship's library. This verification is required for all alterations accomplished during the availability.

If any equipment is modified in an unplanned manner by a repair action, or if any equipment is procured locally by the NSA, the NSA will task and fund the TMMA/ISEA to develop the necessary TM changes.

If a TM cannot be delivered to the ship by EOA, the TMMA via NSA will provide a draft "red-lined" TM at a minimum to ensure that the ship leaves the availability with technical documentation. One paper copy of the TM will be delivered in addition to two electronic versions.

8-3.4.9 Request EOA ITP

At EOA-1, the NSA may request an EOA ITP and other lists or electronic files from NSDSA.

8-3.4.10 EOA ITP Produced and Delivered

During the availability, the NSA provides configuration and logistic data updates to the CDM/ILO Team. At EOA, NSDSA provides the ship an ITP based on configuration data contained in CDMD-OA.

TABLE S8-3.4: ACTION STEPS AND MILESTONES FOR TECHNICAL MANUALS

Para Ref	Time Frame	Action Required	Who is Responsible?	What is Produced?	To Whom Does It Go?
8-3.4.2	A-12	Identify New TM Requirements	PY	PY Produces SAR	SPM/LCM
8-3.4.3	A-12	Task/Begin TM Acquisition	LCM	TMCR/TMSR	TMMA/ISEA
8-3.4.4	A-12	Identify Supporting TMs	LCM	ILS Certification Form	SPM/CDM/ISEA
8-3.4.5	A-4	TM Status Follow-up	LCM	Updated ILS Certification Form	SPM/CDM/ISEA
8-3.4.6	A-2	Request ITP	NSA	Request Products Supporting EOA Configuration	NSDSA/ NAVSEALOGCEN (SSN688 Class)
8-3.4.7	A-1	Forward Copy Of SOA Work Package	NSDSA	TM Requirements List	ILOLANT/ FTSCPAC
8-3.4.8	A-1	Provide TM SOA Work Package/CITL (SSN 688 Class)	NSDSA/ NAVSEA LOGCEN (SSN688 Class)	SOA Work Package of TM Data/CITL (SSN688 Class)	ILO Team/ FTSCPAC
8-3.4.8	SOA	Deliver New TMs	TMMA/ISEA	Revised TMs	NSA
8-3.4.9	EOA-1	Request EOA ITP	NSA	ITP Electronic File	NSDSA
8-3.4.10	SOA to EOA	Update CDMD-OA	CDM/ILO TEAM	Updates for ITP	NSDSA
8-3.4.10	EOA	Update ITP	NSDSA	Updated ITP	Ship

8-3.5 Support Equipment (SE)

8-3.5.1 Scope

This subsection addresses the acquisition of SE and its associated ILS products. SE is any equipment (mobile or fixed) required to support the operation and maintenance of a system/equipment. This includes multi-use end items, ground handling and maintenance equipment, tools, metrology and calibration equipment, TE and Automatic Test Equipment (ATE). Section 21 of reference S8(h) provides detailed information on Test, Measurement and Diagnostic Equipment (TMDE) requirements determination, acquisition and support for new construction ships. Alterations may also precipitate modifications to Printed Circuit Boards (PCBs) that have Test Program Sets (TPSs) and Gold Disks.

8-3.5.2 Background

The major categories of SE most generally affected by system or equipment alterations are:

- General Purpose Electronic Test Equipment (GPETE)
- SPETE
- Calibration Standards (CALSTDs)
- Tools and test accessories and maintenance aids
- Built-In Test Equipment (BITE)/instrumentation
- Test Program Sets and Gold Disk for circuit card testing
- Automatic Test Equipment (ATE)

TE is divided into two categories, GPETE and SPETE. GPETE is defined as test equipment that can, without modification, test two or more equipment/systems of different design. SPETE is TE that is specifically designed to test a single equipment/system. It is the LCM's responsibility to identify all portable and installed SE requirements and to assure that SE will be available to both the operating forces and the supporting maintenance activities at SOA. The LCM must also identify SE impacted by system/equipment removals.

8-3.5.3 Support Equipment Requirements Submitted

At approximately A-12, the LCM will submit all SE support and measurement requirements to NAVSEA 04M and NAVSEA 04L. Those organizations and supporting field activities will review the information and assist the LCM in executing for GPETE, SPETE, CALSTDs and associated documentation requirements. The LCM must also provide equipment removal data to NAVSEA 04M and NAVSEA 04L.

The requirements for use of standard Navy ATE are included in references S8(h) and S8(i). The standard US Navy ATE is the AN/USM-636(V) with Naval Air Systems Command (NAVAIR) PMA260 as the Program Manager (PM). When ATE is utilized, a TPS must be developed for each unique PCB. A TPS consists of an interface adapter, test program and the instructions for test program operation. The requirements for TPSs are generally determined by a Level Of Repair Analysis (LORA) and identified in the Maintenance Plan. A Gold Disk Compact Disk-Read Only Memory (CD-ROM) test procedure is similar to a TPS in that it allows a PCB to be tested to a failed component. Gold Disks are utilized with the AN/USM-646 Test Set. NAVSEA

04M is the PM for the AN/USM-646 and Gold Disks. At approximately A-12, the LCM will direct the development of TPSs or Gold Disks, if required. Gold Disks and TPSs must be developed for standard Navy ATE using standard Navy test software language. The LCM must inform NAVAIR PMA260 and NAVSEA 04M of alterations that impact existing AN/USM-465 TPS or AN/USM-646 Gold Disks respectively. Alterations may also cause modifications to PCBs that have TPS and Gold Disks. The impact of PCB modification will require actions taken to correct fault isolation procedures (MS, TPS, Gold Disks) at all maintenance levels.

8-3.5.4 Tools, Test Accessories, Maintenance Aids Identified

At approximately A-12, the LCM or designated agent will develop a preliminary AEL and submit it to Naval Sea Logistics Center (NAVSEALOGCEN) for approval.

8-3.5.5 Calibration Procedure Requirements Identified

Development of Calibration Requirements List (CRL), calibration procedures and the procurement of test and calibration equipment must be coordinated with NAVSEA 04M and NAVSEA 04L. At approximately A-12, NAVSEA 04L will develop calibration procedures and initial intervals for new GPETE and SPETE, and will coordinate associated CALSTDs requirements with NAVSEA 04M. The Metrology Calibration (METCAL) Manager in NAVSEA 04M will develop calibration procedures and initial intervals for new calibration standards identified in the GPETE and SPETE calibration procedures in accordance with reference S8(j). The Shipboard Instrumentation and Systems Calibration (SISCAL) PM in NAVSEA 04M will also determine the impact of alterations to installed instrumentation and associated CRLs, Shipboard Gage Calibration Program (SGCP) and SISCAL procedures, which includes Instrumentation Calibration Procedures (ICPs) and BITE.

8-3.5.6 Support Equipment Impacts Identified Including Stowage

At A-12, during the development of the SAR, the PY will identify changes required to SE at both the ship and the maintenance activities, including stowage capacity. The appropriate signatures of the LCM, SPM and PY will certify this information.

8-3.5.7 GPETE, SPETE, and Calibration Standards (CALSTDs) Procured

At A-12, the LCM will interface with NAVSEA 04L and 04M for all GPETE, SPETE, and CALSTDs required for the system or equipment and provide to the procuring activity. SPETE must be available concurrent with the equipment/system delivery. Since lead-time for procurement may vary, it is the responsibility of the LCM to initiate procurement to ensure timely delivery. The LCM must provide adequate ILS for all SPETE. NAVSEA 04L shall provide adequate ILS for all GPETE and CALSTDs. All SE requiring calibration shall have greater than two-thirds of its calibration life remaining when delivered to the ship.

8-3.5.8 Identify Documentation Requirements

At A-12, the LCM will identify the applicable TM Numbers/Revisions/Changes that will support the planned alteration and ensure availability by SOA. This information will be identified on the ILS Certification Form as part of the SPM ILS Status Review. NAVSEA 04M will identify and initiate development of appropriate METCAL and SISCAL documentation, including CRLs,

procedures and intervals for CALSTDs, training programs, and calibration activity certification requirements.

8-3.5.9 SE Availability Status Review

At A-4, the SPM will request a full status review of all SE documentation that was not identified as available at SOA during the SPM A-12 ILS Status Review. A copy of this information will be forwarded to the CDM.

8-3.5.10 Ship Portable Electrical/Electronic Test Equipment Requirements List (SPETERL) Developed

At A-6, NAVSEA 04L will direct the Logistics Element Support Activity (LESA) at Weapon Station (WPNSTA) Earle to develop a SPETERL for the ship. The SPETERL identifies the GPETE and SPETE requirements, and provides specific information about the SE, i.e. onboard allowance quantities, equipment application, AEL numbers and stowage information. The LESA will forward a copy of the SPETERL to the ILOLANT/FTSCPAC and NSA to assist in the review of the ship's current inventory.

8-3.5.11 GPETE and SPETE Delivered

NAVSEA 04L will procure and deliver additional required GPETE based on the total ship requirements for GPETE. At SOA, the LCM will ensure that the appropriate SPETE is delivered to the hardware receiving activity concurrent with the hardware delivery.

8-3.5.12 Tools, Test Accessories, Maintenance Aids Delivered

The LCM is responsible to provide all Tools, Test Accessories and Maintenance Aids to the ship/NSA by EOA-6 and that appropriate AELs are revised to reflect the new requirements. ASIs for submarines and non-automated ships will contain OSI allowances for tools and consumables. ASIs for all other ship classes will not contain the OSI allowances and therefore will not build the associated SNAP stock record data.

8-3.5.13 ATE Test Program Sets (TPSs) and Gold Disks Delivered

Utilization of ATE/TPS at the O/I level must be coordinated with NAVSEA 04M. The LCM will ensure that any O or I level ATE, TPSs and Gold Disks are delivered to the ship by EOA-3.

8-3.5.14 Instrumentation Calibration Procedures (ICPs) Delivered

The LCM will ensure that approved Navy ICPs have been delivered to the designated calibration facilities.

8-3.5.15 Support Equipment Verified

At EOA+1, the NSA will verify to the SPM that SE and associated ILS have been provided to the ship for all equipment installed during the availability (see Exhibits S8-III thru S8-VII). The NSA will submit the verification to the SPM and provide a copy to the PY, CDM, TYCOM, and ship.

Table S8-3.5: ACTION STEPS AND MILESTONES FOR SUPPORT EQUIPMENT

Para Ref	Time Frame	Action Required	Who is Responsible?	What is Produced?	To Whom Does It Go?
8-3.5.3	A-12	Submit SE Requirements/ Initiate TPS Development	LCM	List of SE TPSs/Gold Disks Requirements	NAVSEA 04M/ NWS EARLE NJ/ NAVSEA 04L
8-3.5.4	A-12	Develop Preliminary AEL	LCM (or Designated Agent)	Preliminary AEL	NAVSEALOGCEN
8-3.5.5	A-12	Develop ICPs for BITE/SPETE	LCM (or Designated Agent)/ NAVSEA04M/ NAVSEA 04L	ICPs	NWAC MS 62
8-3.5.6	A-12	Identify SE Impacts in SAR	PY	Changes to SE Stowage	SPM/LCM
8-3.5.7	A-12	Initiate Request for SPETE/GPETE/ CALSTDs	LCM	Procurements	NAVSEA 04M/ NAVSEA 04L
8-3.5.8	A-12	Identify Applicable TMs Revisions/ Changes	LCM/NAVSEA 04M	ILS Certification Forms	SPM/CDM
8-3.5.9	A-4	Updated Status Documentation	LCM	Updated ILS Certification Forms	SPM/CDM
8-3.5.10	A-6	Develop SPETERL	NWS EARLE	SPETERL	ILO/NSA
8-3.5.11	SOA	Deliver SPETE	LCM	SPETE	Hardware Receiving Activity
8-3.5.11	EOA	Deliver GPETE	NAVSEA 04L	GPETE	SHIP
8-3.5.12	EOA-6	Deliver Tools, Test Accessories, Maintenance Aids/Revised AELs	LCM	Tools, Test Accessories, Maintenance Aids/Revised AELs	NSA/Ship
8-3.5.13	EOA-3	Deliver/USM-465 ATE TPS and AN/USM-646 Gold Disks	LCM	ATE TPSs	Ship
8-3.5.14		Deliver ILS	LCM	ICPs	Calibration Facilities
8-3.5.15	EOA+1	SE ILS Verification	NSA	ILS Verification Form	SPM/PY/CDM/ TYCOM/Ship

8-3.6 Maintenance Requirements

8-3.6.1 Scope

This subsection addresses the identification and documentation of PMS and Class Maintenance Plan (CMP)/Integrated Class Maintenance Plan (ICMP) tasks to ensure maximum operational readiness for alterations installed under the FMP.

8-3.6.2 Background

Maintenance planning establishes the concepts and requirements for maintaining equipment at each level during its useful life. The PMS concept has been developed to provide the sailor with the information necessary to plan, schedule, and accomplish Preventive Maintenance (PM) on equipment/systems. The documentation used to accomplish the PM is a MIP and MRC. The MIP is a listing of all MRCs that apply to a particular equipment/system aboard ship. The MRC tells the sailor when to perform PM, the technical expertise required to perform it, the length of time needed to perform it, applicable safety precautions, the tools, material, parts (common and APLs supported) and TE needed to perform it, and the detailed procedures that must be followed in order to accomplish the requirement. The LOEP is a listing of all MIPs applicable to the ship.

The CMP/ICMP describes mandatory PM, inspection, and corrective maintenance requirements above the organizational level as well as alterations and availability routines using the philosophies of Condition-Based Maintenance (CBM) as described in reference S8(k). The CMP/ICMP requirements are compiled and maintained in an electronic database. This information is used in planning continuous maintenance and maintenance availabilities. A feedback system has been established which allows for CMP/ICMP tasks to be reviewed and modified on a continual basis.

Changes to the ship's configuration, including MACHALTs, FCs and ORDALTs do not necessarily affect the existing PMS and CMP/ICMP tasks for the equipment. Generally, changes in piping systems, valves, electric motors, controllers, many pumps, and flexible couplings do not require new PMS and CMP/ICMP task development. Rather, they require the identification of existing PMS and CMP/ICMP tasks that are reapplied to newly installed equipment. Follow-on alteration installations that have already had the PMS and CMP/ICMP task impact identified require only identification and reapplication to the newly affected hull. However, for those hardware alterations that change or add functions or represent new systems or equipments, the early identification of PMS and CMP/ICMP task requirements for development or revision will allow for timely update and distribution of PMS and CMP/ICMP task documentation.

8-3.6.3 Maintenance Requirements Identified and Tasked

At A-12, the PY will identify on the SAR if there are PMS impacts and CMP/ICMP tasks. For alterations to hardware that have no PMS and CMP/ICMP tasks developed, the LCM will task and fund for development of or revision to the existing PMS. Tasking will he accomplished by the LCM in conjunction with the PMS and CMP/ICMP Program Managers in NAVSEA 04M. It is equally important that the approved PMS and CMP/ICMP task documentation be forwarded to the appropriate FTSC who acts as the LESA for PMS and CMP/ICMP tasks. FTSC will print

and distribute PMS and CMP/ICMP task documentation to the ILO site, or ship when no ILO is scheduled, for incorporation into the ILO PMS and CMP/ICMP task analysis in accordance with reference S8(d). This analysis will result in updated LOEPs, MIPs and MRCs for the ship.

8-3.6.4 Verification of Maintenance Documentation Availability

At A-12, the LCM will identify all PMS and CMP/ICMP task documentation that will be available by the SOA. In the event of PMS and CMP/ICMP task deficiencies at A-12, LCM will review the status of PMS and CMP/ICMP task development and provide an ILS Certification Form status review update to the SPM at A-4.

8-3.6.5 Maintenance Documentation Availability Status Review

At A-4, the SPM will request the LCM to provide a full ILS status review of all PMS and CMP/ICMP task documentation that was not identified as available during the SPM A-12 ILS review. The information will be provided using ILS Certification Form.

8-3.6.6 Maintenance Documentation Delivery

Between SOA and EOA, ILOLANT/FTSCPAC will conduct a PMS analysis. At EOA, the LOEP will be generated or updated to reflect any new PMS requirements. The ship's 3-M database will also be reviewed for updates.

8-3.6.7 Naval Supervising Activity (NSA) Maintenance Documentation Verification

At EOA+1, using information provided by ILOLANT/FTSCPAC, the NSA will verify to the SPM that PMS and CMP/ICMP task support has been provided to the ship for all alterations installed during the availability (see Exhibit S8-III thru S8-VII). A copy of this verification will be provided to the PY, CDM, TYCOM and the ship. The FTSC will provide the ship with a list of applicable PMS and CMP/ICMP tasks at EOA. In addition, the NSA will provide a copy of all reported PMS and CMP/ICMP task deficiency lists to FTSC.

TABLE S8-3.6: ACTION STEPS AND MILESTONES FOR MAINTENANCE REQUIREMENTS

Para Ref	Time Frame	Action Requirement	Who is Responsible?	What is Produced?	To Whom Does it Go?
8-3.6.3	A-12	Identify PMS and CMP/ICMP Impact	PY	SAR	SPM
8-3.6.3	A-12	Task/Fund Development/ Revision of PMS and CMP/ICMP	LCM	Tasking Document	Developing Activity
8-3.6.4	A-12	Verify Documentation Availability	LCM	ILS Certification Forms	SPM/CDM
8-3.6.5	A-4	Provide Updated ILS Status	LCM	Updated ILS Certification Forms	SPM/CDM
8-3.6.6	SOA to EOA	Updated PMS Package Assembled	ILOLANT/ FTSCPAC	Updated PMS Documentation Package	Ship
8-3.6.7	EOA+1	PMS and CMP/ICMP Verification	NSA	ILS Verification	SPM/PY/CDM/ Ship/TYCOM/ FTSC

8-3.7 Training Support

8-3.7.1 Scope

This subsection addresses the logistics element of Training. Its purpose is to ensure that Training requirements for the operation and maintenance of the system/equipment are developed and in place in concert with Fleet introduction.

8-3.7.2 Background

The installation of a system/equipment alteration may have a major impact on MP&T requirements and on Training system/equipment. New or revised training courses may need to be developed and implemented prior to introducing the alteration into the Fleet. Occasionally interim Training will need to be implemented if Navy Training is not developed in time to meet the initial installation of the alteration. A system/equipment alteration may not only affect shipboard system/equipment, but may also impact system/equipment at training sites (i.e. Training Devices (TDs) and aids), and specific manning plans in terms of numbers and military skill classification.

Assessment of Training impacts for all equipment/system alterations is performed in accordance with reference S8(l) the Training Planning Process Methodology (TRPPM). For requirements determination on submarine applications refer to references S8(m)and S8(n).

Configuration data management for shore based training facilities is being performed in CDMD-OA. NAVSEALOGCEN is the CDM for surface ship Training activities under the direction of NAVSEA 04L, and the requirements of Section 3 of this manual. The SSN 688 Class PY has been assigned as CDM for the SSN Training facilities under direction of the Single Point of Contact for Submarine Training (NAVSEA 92L*)*. Copies of all Ship's Configuration Change Forms (OPNAV 4790/CK) must be entered in the on-site SNAP system and provided to the assigned CDM for those sites via the Training Facility 3-M coordinator for those sites.

The succeeding paragraphs provide details of the action steps shown in Table S8-3.7. These actions apply to all alterations that affect the operation or maintenance of a system or equipment.

8-3.7.3 Training Requirements Identified

Training requirements are identified through a variety of inputs including Navy Training System Plans (NTSPs). The SPM compiles known POM alteration requirements for new and existing TTE, tactical and trainer unique COTS, and TD; and alterations to TTE, tactical and trainer unique COTS, and TD. The LCM/SPM are responsible for submitting the POM through their appropriate chain of command for funding material changes for Training sites in addition to funding new Training or major upgrades. Due to the long lead-time nature of Training requirements development and execution, these inputs are compiled in advance of specific program documentation such as the ILS Certification Form.

8-3.7.4 Navy Training System Plans (NTSPs) Developed

In conjunction with the CNO, the LCM and NAVSEA 92L for Undersea Systems determines, the requirements for development or revision of a NTSP based on criteria contained in reference

S8(l). The DA/SYSCOM/LCM/SPM initiates the actions necessary to develop or revise a NTSP to put in place the required Training on a continuing basis. The NTSP is reviewed at an NTSP Conference and submitted to the CNO Sponsor for approval. The NTSP process is designed to deliver a complete, logistically supported package, including curricula and Training equipment, to the training activity.

Updating existing NTSPs may also require the LCM/SPM to develop a new curriculum and/or training package depending on the amount of change.

8-3.7.5 Crew and Shore Based Training Requirements Identified

At A-12, the PY or the SAR preparation activity will identify, as specifically as possible, the Training impacts of the alteration to ship's force and shore based Training facilities. If the alteration is already addressed by a NTSP, the NTSP will be referenced in the ILS Certification Form. The ILS Certification Form is approved by the appropriate signatures.

8-3.7.6 Crew and Shore Based Training Assessment

Based on the information contained in the JCF and SAR, the LCM/SPM conducts an assessment of Training requirements. When a NTSP exists, and is identified, no further assessment is required, provided the existing NTSP addresses the alteration and Training equipment requirements. When a NTSP does not exist, the LCM/SPM is responsible for assessing and resolving on board and shore based Training equipment and facility issues. Curriculum requirements are developed and approved. This assessment identifies actions to provide for interim Training, NTSP requirements and alteration installation at the appropriate shore based Training sites.

8-3.7.7 Arrange for Interim Training

Often the lead-time to fully implement a NTSP exceeds the time within which Training is required. Further, non-NTSP Training requirements identified in the assessment may also need time to be budgeted and executed. The LCM, in conjunction with the SPM, shall initiate the required tasks to arrange for interim Training requirements.

8-3.7.8 Training Availability Established

At A-12, the LCM/SPM will identify existing or develop new NTSP or interim Training that will be available to support operation and maintenance of equipment alterations planned during the scheduled availability. In addition, the LCM/SPM will identify any shore based Training site, equipment, and Training curricula that will be impacted. This information will be provided to the SPM/CDM using the ILS Certification Form as part of the LRP or SPM ILS Status Review.

8-3.7.9 Ship Overhaul, Modernization Manning and Training Information Program (SOMMTIP) Report Distribution

At A-12, the LCM will develop and provide a SOMMTIP report to the SPM for review and verification of availability dates, NSA assignment and the alteration package. The SPM will return the report to the LCM within three weeks. The LCM, who is responsible for the accuracy of the Training and manning information in the reports, will make distribution at A-6 to the

appropriate Fleet and Headquarters Codes. The A-6 SOMMTIP Report will not cover changes to the availability that are incorporated after A-12. However, updates to the report may be developed upon request of the ship, TYCOM or the SPM.

8-3.7.10 Trainer Initial Operational Capability (IOC)

At A-4, any trainers identified by the approved NTSP should be operational unless a delayed IOC was approved as part of the NTSP process. Installation of whole trainers must occur with an approved Equipment Facility Requirements (EFR) Plan. Installation of smaller changes involving minimal facility impact can be accomplished with other CM documents, such as, Ship's Configuration Change Forms (OPNAV 4790/CK) or Trainer Change Instructions for submarine Training facilities.

8-3.7.11 Training Availability Status Review

At A-4, the SPM will request a full status review of all Training that was not identified as available during the SPM ILS A-12 review. A copy will be provided to the PY.

8-3.7.12 Ship Overhaul/Modernization Training Plan

At A-3, based on current availability data, the ship will publish the Overhaul Training Plan (OTP) including technical and operator Training requirements as a result of alterations to be accomplished. The ship will submit the OTP to the SPM and TYCOM.

8-3.7.13 Formal Training

Dependent upon the type and duration of Training required, the Chief of Naval Education and Training (CNET) and the SPM will assure that the necessary courses are developed/modified, address the appropriate level of personnel (i.e. shipboard and rotational Training), and start in sufficient time to meet their intended requirements.

8-3.7.14 Training in Progress/Completed

At EOA, dependent upon the Training accomplished, the ship will certify in a completion letter the current status of alteration required Training and forward this data to the SPM and TYCOM.

TABLE S8-3.7: ACTION STEPS AND MILESTONES FOR CREW TRAINING SUPPORT

Para Ref	Time Frame	Action Required	Who is Responsible?	What is Produced?	To Whom Does It Go?
8-3.7.3	*	Training Requirements Identified	LCM/SPM	Training Requirements	Appropriate Chain of Command
8-3.7.4	*	NTSP Developed	SYSCOM/LCM/ DA/SPM	NTSP	CNO
8-3.7.5	A-12	Crew and Shore Based Training Requirements Identified	PY/SAR Preparation Activity	Certified SAR	SPM/LCM/PY
8-3.7.6	*	Crew and Shore Based Training Assessment	LCM/SPM	Training Decision	ALCON
8-3.7.7	*	Arrange for Interim Training	LCM/SPM	Tasking	Interim Training Provided
8-3.7.8	A-12 to A-4	Training Availability Established	LCM/SPM	ILS Certification Forms	SPM/CDM
8-3.7.9	A-12 to A-6	SOMMTIP Report Developed	LCM	SOMMTIP Report	SPM/Fleet TYCOM/ Headquarters Codes
8-3.7.10	A-4	Trainer Initial Operational Capability	LCM/SPM/ Training Agency	Training Capability/ EFR	Training Schools
8-3.7.11	A-4	Updated Training Status Reviewed	LCM	Updated ILS Certification Forms	SPM/CDM
8-3.7.12	A-3	Update Shipboard Training	Ship	Overhaul Training Plan	SPM/TYCOM
8-3.7.13	EOA*	Training Courses Developed/ Modified	CNET	Training Courses	Fleet Users
8-3.7.14	EOA	Training Completion Letter	Ship	Completion Letter	SPM/TYCOM

*When requirement is known and dates are established

SUBSECTION 8-4 ILS POLICY AND PROCEDURES FOR TEMPORARY ALTERATIONS (TEMPALTS)

8-4.1 Scope

This subsection defines the different types of TEMPALTs and the minimum ILS products that are required to support the system/equipment while temporarily installed on a ship.

8-4.2 Background

Existing US Navy regulations and directives delegate responsibility to the SPM for the technical approval and configuration control of alterations to ships. TEMPALTs are accomplished onboard ships to provide short-term solutions to operational problems or situations affecting safety, mission objectives, or test and evaluation of proposed designs.

8-4.3 TEMPALT Definition

TEMPALTs are technically approved by the SPM, and authorized and scheduled for accomplishment by the TYCOM. The maximum installed duration for a TEMPALT is one year or one deployment. If the TEMPALT is still onboard or intended to remain onboard the ship in excess of that period of time, a permanent alteration shall be prepared with full ILS certification required and ILS products delivered. Submarine TEMPALT requirements and installation restrictions are contained in reference S8(o). The following are the general TEMPALT categories:

- At-sea Test and Evaluation
- Research & Development
- Operational Evaluation/Technical Evaluation (OPEVAL/TECHEVAL)
- Special Missions/Battle Group
- Exercise

8-4.4 TEMPALT ILS Requirements

The sponsoring activity is required to determine and provide the appropriate level of logistics support to operate and maintain the equipment for the duration of the TEMPALT installation or use aboard ship. The ILS Certification Form should be utilized to indicate the types of ILS products that will be provided to the ship. Due to the nature of TEMPALTs, these products may be in preliminary/interim state. The sponsoring activity will be responsible for updating the ILS Certification Form identifying final products if the alteration remains installed after the initial one-year or one deployment period.

8-4.5 Submarine Operational Alteration (OPALT)

Certain circumstances require special categories of TEMPALTs for submarines to be designated as OPALTs. There are two categories of OPALTs: (1) TEMPALTs used in advance of SHIPALTs. These OPALTs have the same requirements as SHIPALTs; i.e. complete ILS, entered on baseline configuration drawings, PY review, Training etc., but will not replace the class wide SHIPALT; and, (2) installation of equipment for a duration greater than 14 months to support long term at-sea evaluations or special mission requirements for the Fleet. These OPALTs shall provide adequate ILS products. Refer to reference S8(o) for specific guidance and requirements for OPALTs.

EXHIBIT S8-I
SUPPLEMENTAL CONFIGURATION AND LOGISTICS MANAGEMENT REFERENCE DOCUMENTS

CINCPAC/CINCLANT/4720.3(Series) Management of Afloat Combat Systems and C4I Installations and Improvements Final Report of the Navy Battle Force Alignment

MIL-HDBK-2165 Testability Program for Systems and Equipments

NAVICP-MINST 4441.170(Series) COSAL Use and Maintenance Manual

NAVSEAINST 4130.9 (Series) Naval Sea Systems Command Ordnance Alteration (ORDALT) Program

MIL-HDBK-61 (Series) Configuration Management Guidance

NAVSEAINST 4160.3(Series) Technical Manual Management Program (TMMP)

NAVSEAINST 4441.7(Series) Supply Readiness Objectives and Milestones; Implementing Procedures

NAVSEAINST 4720.11(Series) Shipboard Installations and Modifications Performed by Alteration Installation Teams; Centralized Control of

NAVSEAINST 4790.01(Series) Expanded Ship Work Breakdown Structure (ESWBS) for Ships, Ship Systems and Combat Systems

NAVSEAINST 4790.03(Series) Policy and Responsibilities for Processing Planned Maintenance System (PMS) Technical Feedback Reports

NAVSEAINST 4790.8(Series) Planned Maintenance System (PMS), Material Management (3-M) System; Policy and Assignment

NAVSEAINST 5000.39(Series) Ship’s Maintenance and Acquisition and Management of Integrated Logistics Support for Ships Systems and Equipment

NAVSEAINST 9082.01 Life Cycle Management of Portable Test, Measuring and Diagnostic Equipment; Policy and Responsibilities

NAVSEA OD 45845 Navy Calibration Procedures

NAVSUPINST 4420.36(Series) Program Support Data (PSD) for Interim, Initial and Follow-on Secondary Item Requirements

NAVSEA S0701-AA-GYD-010 Technical Manual Acquisition, Acquisition Manager’s Guide

NAVSEA S9040-AA-IDX-010/SWBS5D ESWBS For All Ships and Ship/Combat Systems

NAVSEA S081-AB-G1B-010/MAINT Reliability-Centered Maintenance Handbook

OPNAV P-751-2-9-97 Training Planning Process Methodology (TRPPM) Guide

OPNAV P-751-3-9-97 Training Planning Process Methodology (TRPPM) Manual

OPNAVINST 4400.10(Series) Policies for Integrated Logistics Overhauls (ILOs) and Reviews (ILRs)

OPNAVINST 4790.4(Series) Ship's Maintenance and Material Management (3-M) Manual

OPNAVINST 4790.13(Series) Maintenance of Surface Ship Electronic Equipment

OPNAVINST 9200.3(Series) Engineering Operational Sequencing System (EOSS)

SECNAVINST 3960.6(Series) Department of The Navy Policy and Responsibility for Test, Measurement, Monitoring, Diagnostic Equipment and Systems, and Metrology and Calibration (METCAL)

SL105-AA-PRO-010 ILO Policy and Procedures Manual

NAVSEA Guidebook for Submarine MP&T Acquisition and Life Cycle Support

EXHIBIT S8-II
SAMPLE ILS CERTIFICATION FORM

ILS Certification Form
Date ILS Certification Form prepared (DD MMM YYYY):
If revised, date and revision number of this ILS Certification form (DD MMM YYYY)/Rev #:
ILS Certification Form for Alteration Number(s):
Alteration Type:
Alteration Title and/or Brief:

Purpose of this Alteration:
Equipment Nomenclature(s) and AML #:
ILS Impact? (Yes or No):

SUPPLY SUPPORT REQUIREMENTS

A. SUPPORT REQUIREMENTS
Responsible Activity, Name, Code, Telephone Number and E-mail Address:

SAMPLE FORM

1. COTS / NDI? (Yes or No):

2. PTD Procured or Developed? (Yes or No):
   a. If yes, date submitted to TSA/NAVICP (DD MMM YYYY):
   b. If no, provide a brief rationale and/or estimated completion date:
   c. TSA/NAVICP Point of Contact (Name, Code, Phone and E-mail Address):

3. PAL Established? (Yes or No):

4. Have you planned for procurement of parts to replenish shipboard spares? (Yes or No):

5. Has PSD information been provided to NAVSEA 04 for inclusion in PARTS? (Yes or No):
   a. If yes, date provided (DD MMM YYYY):
   b. Has the installation schedule in PARTS been maintained? (Yes or No):
   c. If no, to question 5, provide a brief rationale and/or estimated completion date:

6. I&C (INCO) Kits required? (Yes or No):

7. Are there Intermediate and Depot level support requirements? (Yes or No):
   a. If yes, has the identification and transfer of all required equipment assemblies, parts, tools, test and support equipment to maintenance facilities been completed? (Yes or No):
   b. If no, to question 7a, provide the date for the completion of these requirements. (DD MMM YYYY):
   c. Provide name, code, telephone number and E-mail Address for Intermediate/Depot level maintenance requirements:

B. CONFIGURATION IDENTIFICATION
Responsible Activity, Name, Code, Telephone Number and E-mail Address:

1. Has configuration data been loaded in CDMD-OA? (Yes or No):
   a. If not, provide the date when the data will be loaded. (DD MMM YYYY):
   Note: configuration data must be loaded in CDMD-OA NLT 2 months prior to Installation.
   b. If data is not being provided via CDMD-OA, provide a brief justification:

2. Is software included in this alteration? (Yes or No): Software Version/Date:

SID # / SID ITEM #	AML Item #	ACL/APL/PAL/AEL Number	NSN or Cage/ Part Number	Equipment Identification	MSD/ PBL	Hull(s) Applicability

SAMPLE FORM

C. Are On-Board Support Items Required? (Yes or No):
1. Identify On-Board Support Items (i.e. SRIs, OBRPs and OSIs) in the table below:

SID # / SID ITEM #	AML Item #	APL / PAL / AEL Number	NSN or Cage/ Part Number	Quantity (OBA)	Equipment Identification	*MSD/ PBL*	Hull(s) Applicability

2. Is a Pack Up Kit or other type of support kit required? (Yes or No):

D. Are Maintenance Assistance Modules (MAMs) Required? (Yes or No):

1. If MAMs are not required, can you fault isolate down to the Lowest Repairable Unit (LRU)? (Yes or No):
2. Identify MAMs in the table below:

SID # / SID ITEM #	AML Item #	APL / (PAL) / Number	NSN or Cage/ Part Number	Quantity (OBA)	Stowage Location	Estimated Availability Date	Hull(s) Applicability

E. Are there any support requirements for Hazardous or Flammable Material? (Yes or No):

SAMPLE FORM

SID # / SID ITEM #	AML Item #	Material Identification (NSN/Nomenclature)	Special Stowage/Handling Requirements

Remarks:

TECHNICAL MANUAL REQUIREMENTS

Responsible Activity, Name, Code, Telephone Number and E-mail Address:

1. Are there any Technical Manual Requirements? (Yes or No):

SID # / SID ITEM #	AML Item #	Technical Manual Identification Number (TMIN)/(IETM)	Title	Existing, Develop, Change or Revision	Estimated Completion Date	Hull(s) Applicability

SAMPLE FORM

2. If Final Technical Manuals are not available prior to installation, are red-lined or preliminary technical manuals available? (Yes or No):
(If yes, identify in the Remarks block those TMs, and whether they are red-lined or preliminary).

Remarks:

MAINTENANCE PLANNING REQUIREMENTS

Responsible Activity, Name, Code, Telephone Number and E-mail Address:

A. Are there any Planned Maintenance System (PMS) requirements? (Yes or No):

1. If Validated MIPs / MRCs are not available prior to installation, are red-lined or preliminary PMS products available (e.g., MRC Facsimile, Technical Manual or Manufacturer's Operating Procedures Manual)? (Yes or No):
(If yes, identify in the Remarks block what type of PMS data is available, and whether they are red-lined or preliminary).

SID # / SID ITEM #	AML Item #	MIP / MRC	Identification Number	Existing, Develop, Change or Revision	Estimated Completion Date	Hull(s) Applicability

SAMPLE FORM

B. Is the Integrated/Class Maintenance Plan (ICMP/CMP) Impacted? (Yes or No):

If yes, has the Maintenance Change Request been submitted via the 04 ICMP web page? (Yes or No):

NOTE: ICMP Maintenance change requests should be submitted via the NAVSEA 04 ICMP Web Page at http://www.webdb.nslc.fmso.navy.mil/icmp.nsf

SID # / SID ITEM #	AML Item #	ICMP Task Number	Existing, New or Revised	Estimated/ Completion Date	Hull(s) Applicability

C. Are Technical Repair/Maintenance Standards Impacted? (Yes or No):

SID # / SID ITEM #	AML Item #	TRS/MS Identification Number	Title	Existing, Develop, Change or Revision	Estimated/ Completion Date

D. Are there Intermediate and/or Depot level maintenance requirements? (Yes or No):

a. If yes, provide the date for the establishment these requirements. (DD MMM YYYY):

b. Provide name, code, telephone number and E-mail Address for Intermediate/Depot level maintenance requirements:

SAMPLE FORM

Remarks:

SUPPORT AND TEST EQUIPMENT REQUIREMENTS

Responsible Activity, Name, Code, Telephone Number and E-mail Address:

A. Does the system use Built in Test / Built in Test Equipment for fault isolation? (Yes or No):

B. Does the system have Support and Test Equipment Requirements? (Yes or No):

C. Has SPETERL information been provided to NSWC IHD DETACHMENT EARLE? (Yes or No):

If no, indicate when the SPETERL information will be provided in the Remarks block.

NOTE: If any GPETE or SPETE will not be available prior to installation, indicate what will be provided and when in the Remarks block.

SAMPLE FORM

SID # / SID ITEM #	AML Item #	Equipment Type	Nomenclature	APL/AEL	SCAT or NSN	Quantity	Estimated Availability Date	Hull(s) Applicability

Remarks:

TRAINING REQUIREMENTS

Responsible Activity, Name, Code, Telephone Number and
E-mail Address:

A. Does system have Training Requirements? (Yes or No):

If Formal and / or Informal training courses are not available
prior to first installation, indicate how training will be provided:

Please provide a Navy Training Systems Plan (NTSP) Number:

B. Is Initial Training Required? (Yes or No):

SID # / SID ITEM #	AML Item #	Course Number and Title	Location	Trainers Impacted	Duration	Ship Sys. Manpower Req.			ECD Date	Hull(s) Applicability
						NEC	Rating / Rate	# Per Ship		

SAMPLE FORM

C. Is Follow-On Training required? (Yes or No):

Please indicate how Follow-On Training Will be Identified. Briefly describe what plans have been made to update training hardware and software to support this change:

NOTE: Shore Trainer Installations should be completed approximately 4 months prior to first ship installation.

SID # / SID ITEM #	AML Item #	Course Number and Title	Location	Trainers Impacted	Duration	Ship Sys. Manpower Req. NEC	Rating / Rate	# Per Ship	ECD Date	RFT Date	Hull(s) Applicability

D. Are there any JQRs/PQS impacted by this change? (Yes or No):

PQS:

SAMPLE FORM

NAVEDTRA Number	Title	Model Manager	Effective Date	Qualification Description

JQRs:

JQR Number	Title	Model Manager	Effective Date	Qualification Description

E. Identify any additional training products (such as Audio/Visual products, Computer Based Training CD-ROMS, Stimulation or Simulation products, etc.,) to be delivered in to the Fleet.

SID # / SID ITEM #	AML Item #	Product Number	Description	Format/Type	Estimated Availability Date	Hull(s) Applicability

SAMPLE FORM

Remarks:

PROPOSED INSTALLATION SCHEDULE

SHIP CLASS	HULL	INSTALL FY QTR	REMOVAL FY QTR (TEMPALTS)

Date ILS Certification Form prepared (DD MMM YYYY):
If revised, date and revision number of this ILS Certification form (DD MMM YYYY)/Rev #:
ILS Certification Form for Alteration Number(s):
Alteration Type:
Alteration Title and/or Brief:

Purpose of this Alteration:
Equipment Nomenclature(s) and AML #:
ILS Impact? (Yes or No):

APPROVAL(s)	SHIP PROGRAM MANAGER(s) (SPM)	Ship Class(es)	ILS Certification Caveat(s) Including Due Date(s)
SUBMITTING ACTIVITY SIGNATURE	SPM SIGNATURE		
TYPED NAME	TYPED NAME		
ACTIVITY / CODE / PHONE NUMBER	ACTIVITY / CODE / PHONE NUMBER		
DATE	DATE		

SAMPLE FORM

SYSCOM APPROVAL (IF REQUIRED)	SHIP PROGRAM MANAGER(s) (SPM)	Ship Class(es)	ILS Certification Caveat(s) Including Due Date(s)
SUBMITTING ACTIVITY SIGNATURE	SPM SIGNATURE		
TYPED NAME	TYPED NAME		
ACTIVITY / CODE / PHONE NUMBER	ACTIVITY / CODE / PHONE NUMBER		
DATE	DATE		

EXHIBIT S8-III
EOA/EOI ILS VERIFICATION FORM

(1)SHIPALT NUMBER:	(2) SHIPALT TITLE:					(3) SWAB:	
(4) OVHL ACTIVITY:			(5) SHIP:			(6) AVAILABILITY:	
EQUIPMENT DESCRIPTION AND NSN (7)	QTY REQ (8)	DRAWING NUMBER (9)	TECHNICAL MANUAL IDENTIFICATION NO. (10)	TEST EQUIPMENT (11)	MAMS (12)	ALLOWANCE PARTS LIST (APL) (13)	SIGHT VALIDAITON (14)

EXHIBIT S8-IV
FORMAT FOR EOA/EOI ILS VERIFICATION STATEMENT

The ILS Verification Statement must address the following information. Verification Statements may be hardcopy or SCLSIS authorized automated format. The exception sheet(s) may be hardcopy enclosures/attachments or automated.

FROM: (NSA)_ TO: (SPM)_ _

FOR: (SHIP)_ AVAIL: (FROM/TO)_ _ _ _ _ _ _ _ _ _ _ _ _

Ref: (a) Fleet Modernization Program (FMP) Management and Operations Manual, SL720-AA-MAN-010 (Series)

Encl: (1) Alterations Completed

Except as noted, it is hereby verified that:
All of the following Integrated Logistics Support (ILS), to include those requirements set forth in applicable ILS Certification Forms and those determined by the NSA, has been provided to the ship at End Of Availability (EOA)/End of Installation (EOI) for those alterations listed in enclosure (1*).

- Supply Support (Repairable Identification Codes/Preliminary Allowance Lists/Interim Repair Parts for non-standard equipment/MAMs/OSI)
- Technical Manuals
- Planned Maintenance System Documentation
- Support Equipment (General and Special Purpose Electronics Testing Equipment)
- Training (Interactive Courseware (ICW), Interactive Multimedia Instruction (IMI), etc)
- Ship Selected Records
- Operational Sequencing Systems

(*Note: Enclosure (1) is EXHIBIT S8-VI of Section 8

It is further verified that:

- Equipment Verifications have been conducted in accordance with Section 8 of reference (a).
- All Provisioning Technical Documentation (PTD) has been provided to the Technical Support Activity (TSA) for provisioning of non-standard equipments.
- All Emergent Work has been reported to the CDM and/or the ILOLANT/FTSCPAC.

Signature of Naval Supervising Activity/Installing Activity _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

The following information must be provided to the SPM for ILS that is not on board at EOA/EOI:

The Logistics Type

- Supply Support (Repairable Identification Codes/Preliminary Allowance Lists/Interim Repair Parts for non-standard equipment/MAMs/OSI) that is without RIC/PAL No/Interim Repair Parts/MAMs/OSI listed by Equipment Nomenclature
- Technical Manuals, listed by identification number and system application
- Planned Maintenance System Documentation, listed by MIP, MRC Numbers
- Support Equipment (General and Special Purpose Electronic Test Equipment) that is without GPETE/SPETE listed by Equipment Nomenclature
- Training (Interactive Courseware (ICW), Interactive Multimedia Instruction (IMI), etc)
- Ship Selected Records that have not been updated
- Operational Sequencing Systems that is not onboard or updated

Information on how and when the deficient ILS products were ordered (i.e. Requisition Number, Letter/Transmittal Number).

Information on the current status/estimated receipt date/reason for late arrival (if known) (i.e. out of stock, not developed, etc.).

Information on the anticipated method of transfer to the ship when received (i.e. transshipment, forwarding letter, to be accomplished by someone other than NSA etc.).

Copies of the Verification Statement and the ILS Status Report are to be forwarded as applicable to:
Planning Yard
Ship
Type Commander
Configuration Data Manager
Integrated Logistics Overhaul Site/Fleet Technical Support Center Pacific and/or Detachments

EXHIBIT S8-V
EOA/EOI ALTERATION REPORT
(Submarine Only)

From: (NSA)
To: Commanding Officer, USS _ (SSN _ _ _ _)

Subj: END OF AVAILABILITY (EOA)/END OF IN STALLATION (EOI) SUBMARINE SUPPLEMENT FOR USS _ _ _ _ _ _ _ _ _ _ _ (SSN _ _ _ _)

Ref: (a) Fleet Modernization Program (FMP) Management and Operations Manual, SL720-AA-MAN-010 (Series)
Encl: (1) Alterations Completed

1. In accordance with reference (a), by copy to the Commanding Officer, USS _ the list of verified alterations attached as enclosure (1*) is to be endorsed by you to the Immediate Superior-In-Command (ISIC)/Submarine Squadron Support Unit (SSSU)/Naval Submarine Support Center (NSSC) Maintenance Document Control Office (MDCO) maintaining your master Current Ship Maintenance Project (CSMP). This action eliminates the requirements for manual preparation and processing of OPNAV Form 4790/CK. The MDCO will use enclosure (1) for direct input to the 3-M program.
(*Note: Enclosure (1) is EXHIBIT S8-VI of Section 8)
2. NAVSHIPYD/IMF (LOCATION) point of contact is (NAME/CODE/PHONE NO.) .

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

SECOND ENDORSEMENT

From: ISIC/SSSU/NSSC
To: COMSUBPAC/COMSUBLANT (N4)

1. The alterations listed in the basic correspondence have been inputted to the RMAIS.

2. Request the status in the TYCOM Alteration Management System (TAMS) be changed accordingly.

_ _
Signature/Title/Date

Copy to: CO USS _ (SSN _ _ _ _ _)
NAVSHIPYD/IMF (LOCATION/CODE)

EXHIBIT S8-VI
ALTERATIONS COMPLETED

USS_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

UIC NO_ _ _ _ _ _ _ _ _ _ _ _ _ _

Availability Type & Dates (Inside Avail):
Installation Date (Outside Avail):

ALTERATION NO.	TITLE	WORK CENTER	JSN
(From CSMP Data – Blocks # 2 and # 3)			

Enclosure (1)

EXHIBIT S8-VII
ILS STATUS REPORT
(PART A)

1. Ship Name/STHN:_ _ _ _

ILS STATUS REPORT
(PART B)

I. Training - Cumulative (ILOLANT/FTSCPAC Provide)

Recommend a minimum of 10% of the crew be trained.
Number Trained _ _ _ _ _ _ _ _ _ _ _ _
Remarks: _ _ _ _ _ _ _ _ _ _ _

C. Ship/ILO Provide:

	Add	Delete
Configuration Changes Reported to CDM	_ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _
Configuration Changes Reported to CDM Not found in CDM Transmittal	_ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _
Configuration Changes Received on CDM Transmittals	_ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _
Configuration Changes Received from CDM and Processed	_ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _

D. COSAL Maintenance (Processed) (Ship/ILO Provide):

Files	Date Received	Date Processed	Sequence #
ASI	_ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _
	_ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _
Auto MCMAR	_ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _

E. COSAL Maintenance (Unprocessed) (Ship/ILO Provide):

Files	Date Received	Sequence #
ASI	_ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _ _
Auto MCMAR	_ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _ _

F. Unsupported Equipment – Provisioning not complete (Ship/NAVICP-M Provide)
Current Number _ _ _ _ _ _ _ _

III. Technical Manuals Analysis

A. NSA Required _ _ _ _ _ _ On-Hand _ _ _ _ _ _ _ On-Order _ _ _ _ _ %On-Hand _ _ _ _ _ _
ILOLANT/FTSCPAC/NSA Required _ _ _ _ _ _ On-Hand _ _ _ _ _ _ On-Order _ _ _ _ _ _ _
%On-Hand _ _ _ _ _ _ _ _

Total Required _ _ _ _ _ _ On-Hand _ _ _ _ _ On-Order _ _ _ _ _ _ %On-Hand _ _ _ _ _ _

B. Required TMs Not Expected to be On-Hand by EOA (Provide List and Status)

IV. Planned Maintenance System (PMS) Analysis (ILO Provide)

A. MIPs/MRCs:

	MIPs	MRCs
SOA Package from FTSCs	_ _ _ _ _ _ _	_ _ _ _ _ _ _ _
Deleted (N/A to ship)	_ _ _ _ _ _ _	_ _ _ _ _ _ _ _
Added (Identified adds)	_ _ _ _ _ _ _	_ _ _ _ _ _ _ _
TOTAL	_ _ _ _ _ _ _	_ _ _ _ _ _ _ _

B. Parts Bill Of Material (BOM) per MRC:

Required _ _ _ _ _ _ _ _ On-Hand _ _ _ _ _ _ _ _ On-Order _ _ _ _ _ _ _ %On-Hand _ _ _ _ _ _ _

C. Latest LOEP Update Forwarded to FTSCs - Date: _ _ _ _ _ _ _ _ Ser: _ _ _ _ _ _ _ _ _ _ _ _ _

V. Repair Parts (Current)

A. COSAL:
ESD> Backload

Type	Allowed	On-Hand	On-Order	Date	% On-Hand
HM&E	_ _ _ _ _ _	_ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _ _
MAM	_ _ _ _ _ _	_ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _ _
Q	_ _ _ _ _ _	_ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _ _
OSI	_ _ _ _ _ _	_ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _ _

B. Inventory (RAG):

	Validity	Date
Last Full Inventory	_ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _
Last Inventory Q/A	_ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _

VI. Test Equipment - Current

	Allowed	On-Hand	On-Order	% On-Hand
A. NSA Provided Modernized	_ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _
B. ILO Provided Replacements	_ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _

Remarks:_ _ _ _ _ _ _ _ _ _ _ _ _

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9-0.1 Scope of Section 9

This section of the Fleet Modernization Program (FMP) Management and Operations Manual addresses a variety of special alteration programs. Procedures, policy and guidance is provided for the preparation, submission and approval of Machinery and Ordnance Alterations (MACHALTs and ORDALTs) as well as Combat Systems (CSs) and Electronic Equipment and Systems Field Changes (FCs), Anti-Submarine Warfare (ASW)/Combat Systems (CSs) Engineering Changes (ECs), the Submarine Ship Alteration (SHIPALT) Package Program, the U.S. Coast Guard (USCG) SHIPALT Program, the Military Sealift Command (MSC) Alteration Program, the Marine Gas Turbine (MGT) Technical Directive (TD) Program, and the Space and Naval Warfare Systems Command (SPAWAR) FC Implementation Program (FCIP).

9-0.2 References for Section 9

S9(a) NAVSEAINST 4720.15 (Series), Machinery Alterations (MACHALTs) on HM&E Equipment and Systems

S9(b) MIL-HDBK 61 (Series), Configuration Management Guidance

S9(c) NAVSEA Technical Specification 9090-310 (Series), Alterations to Ships Accomplished by Alteration Installation Teams

S9(d) NAVSEAINST 4130.12 (Series), Configuration Management Policy and Guidance

S9(e) NAVSEA Technical Specification 9090-210, (Series) Justification/Cost Form

S9(f) OPNAVINST 4790.4 (Series), Ship's Maintenance and Material Management (3-M) Manual

S9(g) NAVSEA Technical Specification 9090-700 (Series), Ship Configuration and Logistics Support Information System

S9(h) MIL-STD-1662 (Series), Ordnance Alteration (ORDALT) Instruction, Preparation of

S9(i) NAVSEAINST 8020.6 (Series), Navy Weapon System Safety Program

S9(j) NAVSEA ltr 63E:BAS, Ser 237 of 19 Oct 83; Subj: ASW Engineering Change (EC) Installation Program for Sonar/Acoustic Warfare Equipment

S9(k) ASW/Undersea Warfare Systems Internal Management Directive # 5 of 18 Apr 83; Subj: Procedures for the Conduct of Configuration Audits

S9(l) ASW/Undersea Warfare Systems Internal Management Directive # 3 of 18 Apr 83; Subj: ASW/Undersea Warfare (ASW) System Configuration Control Boards (CCBs); charter for

S9(m) NAVSEAINST C3501.2 (Series), Navy Warfare Mission Areas and Required Operational capability/Projected Operational Environment (ROC/POE) Statement

S9(n) NAVSEAINST 4160.3 (Series), Technical Manual Management Program (TMMP)

S9(o) T9234-AB-PRO-010/MGTE TD Guide, Marine Gas Turbine Technical Directive Manual

S9(p) NAVSEAINST 5400.57 (Series), Delegation and Technical Responsibility and Authority to Engineering Agents

S9(q) NAVSEAINST 4130.11 (Series), Joint Configuration Management of Marine Gas Turbine Engineering Control System Equipment

S9(r) NAVSEAINST 9234.1 (Series), Procedures for Shipboard Marine Gas Turbine Replacement Authorization

S9(s) NAVSEAINST 4442.1 (Series), Marine Gas Turbine Item Accounting and Inventory Control System

S9(t) NAVSEA Technical Specification 9090-1500 (Series), Provisioning, Allowance and Fitting Out Support (PAFOS) Manual, Chapter 5

S9(u) NAVSEA Technical Specification 9090-500 (Series), Ship Alteration Record

S9(v) NAVSEA Technical Specification 9090-600 (Series), Ship Alteration Drawing Preparation

S9(w) OPNAVINST 4000.79 (Series), Policy for U.S. Navy Support of the U.S. Coast Guard

S9(x) NAVSEA and MSC Memorandum of Understanding dated 25 March 1992

S9(y) SPAWARINST 4130.1 (Series), SPAWAR Configuration Management (CM) Policy and Procedures

S9(z) NAVSEAINST 4720.14 (Series), Temporary Alterations To Active Fleet Submarines

S9(aa) CINCLANTFLT/CINCPACFLTINST 4790.3 (Series), Joint Fleet Maintenance Manual

SUBSECTION 9-1 MACHINERY ALTERATION (MACHALT) PROGRAM

9-1.1 Scope of Subsection 9-1

This subsection and reference S9(a) define policies, procedures, and responsibilities associated with the performance of the MACHALT Program. The MACHALT Program permits changes to Hull, Mechanical and Electrical (HM&E) equipment/systems where the changes are contained within boundaries of the individual equipment/system and have limited system ramifications. The MACHALT Program uses kits to enable HM&E changes to be accomplished in an expeditious manner, eliminating these changes from the formal SHIPALT process. A MACHALT is defined as a planned change, modification, or alteration of any HM&E equipment in service (shipboard or shore activities). This occurs when the Configuration Control Board (CCB) determines that the alteration or modification meets all of the following conditions:

- Can be accomplished without changing a major interface external to the equipment/system.
- Is a modification made within the equipment boundary or is a direct replacement of the original equipment design.
- Can be accomplished without the ship being in an industrial activity.
- Will be accomplished individually and not in conjunction with a SHIPALT or other MACHALT.

9-1.2 General Machinery Alteration Process Overview and Policies

This paragraph describes the MACHALT Program, beginning with identification of proposed improvements and concluding with update of documentation incident to installation.

The first step, the proposal development phase, begins with the identification of an HM&E improvement and includes developing data necessary to prepare a Preliminary Engineering Change Proposal (PECP). The PECP fully describes the improvement, identifies major material requirements, and estimates the number of installations and the cost of each. The PECP must be approved by the MACHALT CCB, Chief of Naval Operations (CNO) N43, and the Fleet before prototype installation engineering is undertaken.

The second step, the proposal prototype phase, is accomplished by the Naval Surface Warfare Center, Carderock Division-Ship Systems Engineering Station (NSWCCD-SSES) MACHALT Program Office (MPO) and results in a formal Engineering Change Proposal (ECP). The formal ECP is prepared based upon the satisfactory completion of a prototype installation on a Fleet unit where production quality hardware and draft procedural documentation and Integrated Logistics Support (ILS) products are used. Fleet evaluation of the prototype installation is a function of the prototype phase. Until approval of the formal ECP by the Technical Directorate (TD) (Naval Sea Systems Command (NAVSEA) 05L) or Life Cycle Manager (LCM) and the MACHALT CCB, the alteration shall not be programmed for accomplishment on any ship or class of ships.

The final step of the MACHALT process, the execution phase, begins after the MACHALT CCB has approved the formal ECP for accomplishment. At that time, the MACHALT Instruction, fully describing the work to be done, is validated by NSWCCD-SSES MPO. NSWCCD-SSES also enters and programs the MACHALT in the Navy Data Environment-Navy Modernization (NDE-NM) Module, formerly the Fleet Modernization Program Management Information System (FMPMIS). Each MACHALT Instruction and all related ILS products are verified

during the proof-in installation (the first production installation) for incorporation into the Technical Information Bulletin (TIB). The TIB is approved by the LCM and MPO for distribution before other installations are performed.

9-1.2.1 MACHALT Proposal Development Phase

9-1.2.1.1 Proposed HM&E Improvement

HM&E deficiencies that can be resolved by installation of a MACHALT are initiated by submittal of a PECP to the NSWCCD-SSES MPO for review and prioritization. The MPO is responsible for presenting the PECP to the MACHALT CCB for approval. The MACHALT CCB uses the PECP, with its accompanying cost benefit analysis, to determine whether to proceed with development of the alteration. Upon approval by the MACHALT CCB, the PECP is submitted to CNO N43 and the Fleet for approval. Upon approval, the TD or the appropriate Ship Program Manager (SPM) budgets for the acquisition of the prototype and production MACHALT kits in the appropriate Other Procurement, Navy (OPN) funding lines.

9-1.2.2 MACHALT Proposal Prototype Phase

9-1.2.2.1 Prototype Engineering and Installation

Upon approval of the PECP by the Fleet, NSWCCD-SSES MPO will solicit funding and task the development of a draft installation and test procedure with material and tool lists for use during the prototype installation. Production quality hardware is purchased and ILS products changes are developed based on the draft installation procedures and material list as well as the ship class selected for the prototype installation. NSWCCD-SSES MPO schedules via the approproate Type Commander (TYCOM) and directs the prototype installation when all of the above actions are complete. Following initial shipboard testing of the prototype installation by the installation activity, Fleet evaluation of the prototype installation over extended normal equipment operation is arranged. The prototype effort may be waived only by the authority of the MACHALT CCB.

9-1.2.2.2 Formal ECP Development

The formal ECP provides a detailed technical description (including sketches and list of material) of the MACHALT, delineating exactly what additions and deletions are required to accomplish the alteration. The formal ECP also identifies the ships and facilities where the MACHALT applies; identifies MACHALT kit procurement and installation costs; identifies the kit installation agent; identifies all requisite ILS products and costs to introduce and maintain the MACHALT; and provides an installation plan by hull and a lead time required to procure each kit. The formal ECP is prepared by NSWCCD-SSES MPO for approval by the MACHALT CCB. Upon approval of the formal ECP, the MACHALT CCB issues a directive authorizing procurement and installation of the MACHALT kits.

NAVSEA 08 shall concur with PECPs and formal ECPs prior to execution of all MACHALTs on propulsion plant equipment in accordance with NAVSEA 08 and platform memorandum of understanding for each nuclear powered ship.

9-1.2.3 MACHALT Execution Phase

Development of the MACHALT Instruction and ILS products and acquisition of production

MACHALT hardware is not authorized until the formal ECP is approved by the MACHALT CCB for installation on ships and entered in NDE-NM. After the formal ECP is approved, the MACHALT CCB Secretariat will assign a MACHALT name and number. NSWCCD-SSES MPO will update NDE-NM with the kit delivery dates and the installation plan by hull. The MACHALT CCB Secretariat will forward the implementing directive to appropriate SPM and other shore activities.

Upon receipt of the CCB Directive (CCBD), NSWCCD-SSES will develop specifications for procurement of MACHALT kit hardware and develop ILS products required for all applications. NSWCCD-SSES will schedule and accomplish a proof-in installation, as the initial production installation, to verify the adequacy and accuracy of the hardware and ILS products in the MACHALT kit. NSWCCD-SSES will also develop a MACHALT management plan that will schedule and track procurement of material, ILS products, and installation of each production quality MACHALT kit.

9-1.2.3.1 MACHALT Instruction

Upon issuance of the MACHALT CCBD, a MACHALT Instruction is developed. A MACHALT Instruction is the document that contains the detailed installation and checkout procedures and other related information required to perform the modification to an HM&E system or equipment. A MACHALT Instruction will be one element of a MACHALT kit. The MACHALT Instruction shall reference the other elements (ILS products, and other related information) that are contained in the MACHALT kit. The MACHALT Instruction will be written to enable it to be integrated in an Engineered Time Value (ETV) format for use by Intermediate Maintenance Activity (IMA) personnel. NSWCCD-SSES MPO will provide the preliminary MACHALT Instruction and draft ILS products to the LCM for review and approval. Only draft copies of the MACHALT Instruction and the PECP may be submitted to SPMs and shore activities, including Planning Yards (PYs) for applicability review.

9-1.2.3.2 MACHALT Proof-In Installation

The initial production installation of a MACHALT kit is called the proof-in installation. The proof-in is used to verify the accuracy of the hardware and ILS products in the MACHALT kit. NSWCCD-SSES MPO will schedule and direct installation of a MACHALT proof-in kit. This verification effort will ensure accuracy of MACHALT Instruction procedures; form, fit, and function of the kit hardware; completeness of the ILS products; and availability of supporting tools and test equipment as well as Installation and Checkout (I&C) spares. NSWCCD-SSES MPO will certify validation of the MACHALT Instruction through the proof-in installation process.

9-1.2.3.3 MACHALT Installations

Upon completion of the proof-in installation and subsequent approval of the MACHALT Instruction and ILS products, NSWCCD-SSES MPO will accomplish the following:

- Provide final assembly of all MACHALT kits.
- Direct installation of MACHALT kits.
- Interface with each TYCOM to schedule installation of each MACHALT.
- Release the MACHALT kit for installation after ensuring that all ILS products for the new configuration are available.

- Direct shipment of the kit to the hull/activity scheduled for a MACHALT installation.
- Stage MACHALT kit prior to release.
- Maintain an on-line tracking system for applicable installations and kit materials.
- Submit the required configuration updates electronically to the cognizant Configuration Data Manager (CDM) via Configuration Data Managers Database-Open Architecture (CDMD-OA).
- Provide the CDMD-OA Electronic Configuration Change (ECC) Report for each MACHALT installation to cognizant ship's force personnel.
- Notify Original Equipment Manufacturers (OEMs) of changes made to their equipment.
- Notify PYs of the pending changes to Ship Selected Records (SSRs).

9-1.2.3.4 MACHALT Kit

The MACHALT kit is an assemblage of installation and checkout materials and ILS products required to alter an HM&E system or equipment by accomplishment of a MACHALT. A MACHALT kit is made up of the MACHALT Instruction, installation materials, ILS products and other related information required to accomplish and support a MACHALT installation.

9-1.3 Technical, Engineering and Platform Directorate Policies and Responsibilities

The TD will ensure the integrity of MACHALT development by establishing the policy for the development, documentation and execution processes. NAVSEA 05L is designated as the NAVSEA agent for administration of the MACHALT Program.

The LCM for specific HM&E equipment and systems on all ships, modified by the proposed MACHALT will guide and support the development and documentation of all alterations. The LCMs will act as the command advocate for application of advanced technology and design concepts to machinery and systems under their cognizance, and must approve critical technical matters affecting their equipment.

The SPM acts as LCM of all assigned ships. In concert with the equipment LCMs, they act as the command advocate for application of advanced technology and design concepts to ships under their cognizance, and must approve critical technical matters affecting their ships. Accordingly, the SPMs serve as permanent members of the MACHALT CCB, chaired by the TD.

9-1.3.1 Technical Directorate (TD) Responsibilities

The TD is responsible for the following functions in the administration of the MACHALT program:

- Act as prime NAVSEA point of contact in the MACHALT development process.
- Monitor technical and ILS aspects of MACHALTs and review MACHALT development performance.
- Collect data for inclusion in the OPN budget in justification of the following MACHALT phases:
  - Preliminary ECP
  - Formal ECP
  - MACHALT Instruction
  - MACHALT kit procurement

  - MACHALT kit installation
- Act as primary point of contact with CNO N43 for emergent requirements, defining execution steps and monitoring system development progress.
- Identify compensation or request re-programming of funds via the OPN Financial Manager or FMP Financial Manager or Fleet Commanders to cover development efforts that exceed established cost estimates and cannot be otherwise funded.
- Budget for MACHALT kit acquisition funds via appropriate hardware lines and advanced acquisition programs.
- Monitor the MACHALT Program to assure quality maintenance and reliability in all SSRs throughout a ship life cycle.
- Approve, as chair of the MACHALT CCB, in conjunction with SPMs, all changes, waivers, and deviations to HM&E systems and equipment to be executed under the MACHALT Program.
- Assess the cumulative impact of MACHALTs on SHIPALT program actions to ensure that contradictory or redundant efforts do not result.
- Approve the MACHALT Instruction for use after completion of proof-in installation.

9-1.3.2 Ship Program Manager (SPM) Responsibilities

The SPMs are responsible for the following functions in support of the MACHALT Program:

- Provide permanent membership on the MACHALT CCB.
- Assign Proposed Technical Improvements (PTIs) nominated for SHIPALT program qualification to the MACHALT Program when the proposed improvement meets MACHALT Program criteria.
- Identify compensation or request reprogramming of funds via the FMP Financial Manager or Fleet Commanders to cover development efforts that exceed established cost estimates and cannot otherwise be funded.
- Budget for MACHALT kit acquisition funds via appropriate hardware lines.

9-1.3.3 FMP Financial Manager Responsibilities

Responsibilities for NAVSEA 013, as the FMP Financial Manager, are described in Section 6 of this manual. Line item manager responsibilities regarding budgeting and financial management are also specified in Section 6 of this manual.

9-1.4 NAVAL SURFACE WARFARE CENTER CARDEROCK DIVISION-SHIP SYSTEMS ENGINEERING STATION (NSWCCD-SSES) MACHALT PROGRAM OFFICE (MPO) Responsibilities

NSWCCD-SSES MPO, the NAVSEA technical and management agent for the MACHALT Program, is responsible for the following functions in the management of the MACHALT Program:

- Act as prime NAVSEA point of contact in the MACHALT development process.
- Develop and maintain Configuration Status Accounting (CSA) for all PECPs and formal ECPs.
- Conduct technical studies in support of development of PECPs and formal ECPs.
- Maintain the technical adequacy and accuracy of MACHALT Program documents.
- Provide permanent membership on the MACHALT CCB as secretariat, and publish and

disttibute minutes from each CCB meeting.

- Develop and maintain MACHALT Instructions.
- Develop the required changes to ILS products required to support MACHALT installations. This will include new or revised equipment and system Technical Manuals (TMs), Planned Maintenance System (PMS) products, Allowance Parts Lists (APLs), Allowance Equipage Lists (AELs), Training, etc as described in Section 8 of this manual.
- Procure MACHALT kits.
- Schedule MACHALT installations via the TYCOM scheduling process.
- Provide technical oversight for MACHALT installations.
- Direct prototype installation efforts and certify validation of MACHALT Instructions through the proof-in process.
- Submit the required configuration updates electronically to the CDM via CDMD-OA.
- Provide the CDMD-OA ECC Report for each MACHALT to cognizant ship's force personnel.
- Update NDE-NM for each MACHALT installation with installation planning data and accomplishment data after each MACHALT installation is completed.
- Ensure that all SSR requirements are fulfilled during MACHALT acquisition.
- Notify OEMs of changes made.
- Notify PY of MACHALT installation.

SUBSECTION 9-2 - ORDNANCE ALTERATIONS (ORDALTs)

9-2.1 Scope of Subsection 9-2

This subsection defines the policies, procedures and responsibilities associated with the preparation and installation of ORDALTs in non-expendable ordnance items. It applies only to installations under the cognizance of the FMP (see Section 1 of this manual). ORDALTs to expendable ordnance items are not part of the FMP process. However, the general policy and procedures for non-expendable ordnance items, except for FMP installations, apply to expendable ORDALTs.

9-2.2 Definitions for Subsection 9-2

For purposes of this subsection, the following definitions are provided:

a. Combat System (CS) - A functional grouping of all shipboard equipment and systems that are designed to detect, track, identify, communicate, process, evaluate and control the engagement of enemy forces, either actively or passively. The CS includes: command and control, missiles, guns, fire control, launchers, torpedoes, rockets, sensors, electronic warfare, communications, navigation, associated computer programs and related off-board assets, for example, Light Airborne Multipurpose System (LAMPS). The CS is the totality of the war-fighting capability of a surface ship or submarine.

b. Configuration Control Board Directive (CCBD) – A document that authorizes the implementation and the commitment of resources for an approved ECP and associated ORDALT.

c. Conjunctive SHIPALT – ORDALTs that impose an impact on a ship's system (such as increase in ship's power, increase in cooling requirements, change in weight and moment, and impact on water tight integrity) may, as determined by the CCB, require a conjunctive SHIPALT. The ORDALT will become a part of the SHIPALT's bill of material and will be accomplished concurrently with and be funded by the SHIPALT.

d. Conjunctive ORDALT – A conjunctive ORDALT is one that must be accomplished before, with or after another ORDALT or other alteration type for the system/equipment to operate as designed.

e. Embedded Equipment - A configuration item that is resident within or associated with another system or equipment and is therefore identified as an integral component of that host system or equipment. Embedded computer resources, usually comprising an embedded computer and its associated computer programs, typically define embedded equipment.

f. Latent Defect - A defect that existed at the time of government acceptance of the equipment/system but was not detectable with existing inspection or test procedures.

g. Ordnance Alteration (ORDALT) - Any modification, other than a SHIPALT, in the configuration of ordnance equipment or systems (including embedded equipment and computer programs) after establishment of the product baseline. An ORDALT involves a change in design, material, quantity, installed location, ILS, supportability, or the relationship of the component parts of an assembly within the ship or shore installation. ORDALTs include the addition, deletion, rework or replacement of parts, assemblies or equipment; or changes in assembly procedures. Alterations to associated computer programs include the incorporation of different computer program versions, and approved modification or corrections to both operational test and maintenance programs. ORDALTs are initiated by approved Class I ECPs, in accordance with reference S9(b) and apply equally to changes installed in delivered systems

and equipment, and changes installed in systems and equipment in production to identify differences from an established product baseline. ORDALTs may be initiated to correct a design defect, to change equipment operational capability, to eliminate safety hazards, to update obsolete components, or for any combination of these reasons.

h. ORDALT Instruction - ORDALT Instructions are technical documents that provide directions, drawings, test procedures and list of parts and material supplied or required to accomplish an alteration and the procedures for reporting the change as being installed at a specific site.

(1). ORDALT Instruction Change - A correction, addition or deletion to the text to improve clarity, for changes in applicability, to correct latent defects or for other simple corrections such as typographical errors. A change does not affect the entire ORDALT Instruction but rather affects existing pages or may add pages to the instruction. Changes are identified numerically, for example, ORDALT 12345 Change 1.

(2). ORDALT Instruction Revision - A complete rewrite of an existing ORDALT Instruction retaining the same ORDALT Instruction number together with a revision letter, for example, ORDALT 12345 Revision A. A revision is employed when a major correction, rewrite or revision to the technical data is required, or to correct latent defects discovered after government acceptance of the basic ORDALT. Revisions shall not be used when form, fit or function is affected.

(3). New (Superseding) ORDALT Instruction - An instruction issued instead of a revision whenever: (a) the material to be supplied with the new ORDALT is not completely interchangeable with the content of the original ORDALT kit and (b) the changes are such as to require the submission of a new completion report even though the original ORDALT has been completed. New ORDALT Instruction numbers are assigned to superseding ORDALTs.

i. ORDALT Kit - An assemblage of the ORDALT Instructions, publications, ILS package (TM changes, revised PMS documentation, and updated APLs, On Board Repair Parts (OBRPs), I&C spares, Maintenance Assistance Modules (MAMs), special tools, special test equipment), the required hardware to accomplish the alteration, revised computer programs/software, alteration identification plates. The kit may contain Interim Supply Support (ISS) material to support the alteration until the Material Support Date (MSD) has been achieved.

j. Performing Activity - An activity performing any of the requirements of a contract or any instrument implementing an agreement between a tasking activity and a performing activity. A performing activity can be either a commercial or government activity.

k. Product Baseline - For in-service equipment/systems, the product baseline is the currently approved product baseline plus government approved changes thereto for deployment, operation and reprocurement. For new equipment and systems in production, the product baseline is considered established when Functional and Physical Configuration Audits (FCAs and PCAs) have been successfully completed, the procurement documents defined in reference S9(c) are in place and the baseline APL has been created and entered into Level C of the Weapon Systems File (WSF).

l. Tasking activity - An activity imposing the requirements of a contract on a performing activity, for example, a government contracting activity awarding a contract, a government program management office tasking a performing activity; or a contractor tasking a sub-activity.

m. Technical Documentation - Documents that transmit the technical data, instructions and safety procedures related to the operation, installation, maintenance and modification of the

system/equipment being altered. These documents include new and revised TMs, PMS documentation (including Maintenance Index Pages (MIPs) and Maintenance Requirement Cards (MRCs)), test procedures, revised APL/AEL and other documentation required to maintain and support the equipment being altered.

9-2.3 Organizational Responsibilities

Roles and responsibilities required for the approval, development, installation, and support of ORDALTs are described below.

9-2.3.1 Equipment Life Cycle Manager (LCM)

The LCMs (sometimes referred to as Participating Manager (PARM)) for ORDALTs have technical and ILS responsibility for assigned equipment. Specific responsibilities of the LCM include:

- Process Class I ECPs to effect the transition of an approved Class I ECP into an ORDALT.
- Prepare and process a Justification/Cost Form (JCF) if a conjunctive SHIPALT requirement is indicated.
- Issue the CCBD initiating each alteration.
- Recommend priority levels for FMP ORDALT accomplishment.
- Plan, program and budget for ORDALT procurement and ILS.
- Provide procurement budget detail as well as estimated cost and schedule for ORDALT installation to NAVSEA 04M313.
- Provide accurate and timely ORDALT planning and installation information and input this data into the NDE-NM.
- Plan and monitor the development and implementation of ILS products as detailed in Section 8 of this manual.
- Maintain configuration control and CSA information for cognizant equipment and systems.
- Direct evaluation or proof-in of ORDALT, including computer programs and other documentation changes.
- Approve the ORDALT Instruction, changes and revisions.
- Direct ORDALT kit assembly, shipment, storage, inventory, maintenance, and kit issue to the installing activity.
- Direct cannibalization and disposal of material removed by ORDALT Instructions and obsolete kits still in inventory.
- Interface with the SPM and ORDALT Program Manager (PM) regarding required escrow changes in FMP funding.

9-2.3.2 Combat Systems Engineer (CSE)

- Conduct cognizant Ship Class Combat System Engineering reviews of all ECPs for CS interface impact if required under subsection 9-2.5.2.
- Review and provide technical approval for JCFs for conjunctive SHIPALTs.
- Review alteration installation waiver requests and provide concurrence as appropriate.

9-2.3.3 FMP ORDALT Line Item Manager (NAVSEA 04M313)

- Establish ORDALT program policies and procedures.
- Define ORDALT program requirements and establish tasking and planning estimates for the accomplishment of ORDALTs by installing activities.

- Formulate ORDALT installation budget requirements for inclusion in the FMP budget prepared for the FMP Financial Manager (NAVSEA 013) and act as NAVSEA's execution agent for ORDALTs installed under the FMP. Line item manager responsibilities regarding budgeting and financial management are also specified in Section 6 of this manual.
- Forward signed funding requests to the FMP Financial Manager (NAVSEA 013) for installation funding as detailed in Section 6 of this manual.
- Prepare the ORDALT portion of the SHIPALT Authorization Letter.
- Obtain SPM's and FMP Financial Manager's (NAVSEA 013) concurrence prior to releasing any correspondence that changes the scope of ORDALT work to be accomplished by shipyards or contractors under the cognizance of the Naval Supervising Activity (NSA).
- Manage and maintain the NDE-NM and associated functions including alteration installation scheduling activities and conference, ILS certification and ORDALT release information, alteration installation waivers, data input and validation and verification of system data.
- Prepare, support and defend ORDALT installation funding requirements.
- Interface with the LCM and the SPM regarding required escrow changes in FMP funding.

9-2.3.4 FMP Financial Manager (NAVSEA 013)

The roles and responsibilities of the FMP Financial Manager are detailed in Section 6 of this manual.

9-2.3.5 Ship Program Manager (SPM)

- Approve equipment ECPs that impact SPM funding, ship design interface (i.e., conjunctive SHIPALTs) or schedule.
- Include approved ORDALTs in the authorization letter for ORDALTs that will be installed during an industrial availability.
- Provide tasking and funding to SHIPALT Alteration Installation Team (AIT) activities as requested by the LCM.
- Interface with the SPM and ORDALT Program Manager regarding required escrow changes in FMP funding.

9-2.3.6 Field Activities Designated to Execute ORDALTs

The designated activity will act as the technical direction and management agent for the program relating to the ORDALT. Specific functions include:

- Provide alteration index data as defined herein, for all alterations under its cognizance.
- Review preliminary ORDALT Instructions and documentation changes for technical adequacy and accuracy.
- As directed by the PM, incorporate revisions to the ORDALT Instruction based on feedback (problem reports) from installing activities, technical review of data from Naval Inventory Control Point-Mechanicsburg (NAVICP-M), and revisions to the CCBD.
- Prepare and maintain ORDALT Instructions.
- Authenticate ORDALT Instructions, when directed by the cognizant PM.
- Direct the inspection and quality monitoring of the ORDALT kit.
- Authorize shipment of each ORDALT kit from the stocking and issuing activity.
- Maintain liaison with ORDALT OBRP staging facilities, when required.
- Initiate the cannibalization or disposition of ORDALT kits in Not-Ready-For-Issue, inactive or unaccomplished status, when directed by the cognizant PM.

- Develop and recommend to the PM solutions to ORDALT installation problems.
- Update or ensure update of local CSA records, the NDE-NM, Configuration Overhaul Planning Data, and the CDMD-OA record for each CS Configuration Item (CI).
- Store Foreign Military Sales (FMS) alteration kits and issue, as directed by the SPM, to the foreign countries.

9-2.3.7 Naval Inventory Control Point-Mechanicsburg (NAVICP-M)

- Provide information for revision of APLs/AELs lists.
- Identify the MSDs for the OBRPs required by the ORDALT.
- Budget for, procure and provide OBRPs and Operating Space Items (OSIs) as required to support ORDALTs after MSD is achieved.

9-2.3.8 Fleet Technical Support Centers

- Provide scheduling and coordination for non-industrial availability alterations.
- Host the Alteration Scheduling Conferences.
- Supervise and augment, as necessary, non-industrial availability AITs.
- Provide technical and logistics Quality Assurance (QA) checks for equipment alterations as directed.

9-2.3.9 Installing Activity

- Check in with the local Regional Maintenance and Modernization Coordination Office (RMMCO) with the proper documentation prior to going onboard the ship for ORDALT accomplishment.
- Validate alteration completion data prior to submission to the CDM.
- Technically accurate alteration installations.
- Pre-installation and Post-installation testing.
- Completion of the AIT ILS Verification Statement Checklist, as described in reference S9(c).

When an AIT accomplishes the ORDALT installation, both the installation and ILS certifications remain the responsibility of the government representative designated by the PM.

9-2.3.10 Embedded Equipment Activities

Embedded equipment has an “owner” and various “useres”. The owner is the PM for the embedded equipment, and the users are the PMs for the equipment or systems in which the equipment is embedded.

a. Owner PM

- Develop and provide ORDALT Instructions to all users of embedded equipment.
- Procure embedded equipment and ILS products for user PM accepting the ORDALT.

b. User PM

- Provide change requirements to owner PM for embedded equipment used in their systems.
- Determine applicability of ORDALTs to their systems.
- Plan, budget and fund for procurement and installation of applicable ORDALTs.
- Update CSA records for all ORDALTs installed, and provide as necessary to the owner PM.

9-2.4 Embedded Equipment

A Memorandum Of Agreement (MOA) shall be developed between the embedded equipment PM and user PMs for change control. The MOA will designate responsibility for development of the ORDALT Instruction, procurement of the kit, and installation of the ORDALT.

The owner PM is responsible for overall life-cycle management, technical direction of engineering, Configuration Management (CM) and ILS of the embedded equipment.

Owner originated changes to embedded equipment, i.e., Equipment Alterations, shall be offered by the embedded equipment owner PM to all users of the item. Users of the item have the option of accepting or rejecting Equipment Alterations. If a user PM determines a change is required, the requirement will be executed in accordance with the MOA.

9-2.5 ORDALT Process

9-2.5.1 Overview

All ORDALTs are generated from approved Class I ECPs prepared in accordance with reference S9(d). ECP DD Forms 1692 and 1693 are available electronically in the NAVSEA local network Form Flow directory or on line at http://www.dior.whs.mil/forms//dd1692. Other activities may obtain this form through normal supply channels per Naval Supply Systems Command (NAVSUP) Publication 2002, through their local networks or on line at http://www.dior.whs.mil/forms//dd1692. Weapons and CS equipment/system LCMs and SPMs are responsible for review and approval or disapproval of these ECPs.

9-2.5.2 ORDALT Engineering Change Proposal (ECP) Evaluation Phase

Each system/equipment manager will establish a CCB for CIs under their cognizance and delegate approval authority to the CCB Chairpersons appointed within each organization. An ECP for an alteration to in-service-use equipment, when approved by the CCB Chairperson, will be implemented under the FMP only after it has been assigned an ORDALT number in accordance with Subsection 9-2.5.12. If the proposed improvement is required to support (or is designated) a Proposed Military Improvement (PMI), it will be processed in accordance with Section 4 of this manual.

All ECPs will be evaluated for interface impact. If there is an interface impact within or between system/equipment organizations, the interfacing system/equipment technical manager affected and the CSE will be a member of the CCB. ECPs that impose an impact on ship's systems (such as an increase in ship's power or cooling requirements) shall be submitted as PTIs to the SPM for approval and determination of a requirement for a conjunctive SHIPALT. The LCM having the greatest responsibility or impact will be designated the lead for development of the JCF in accordance with reference S9(e). The resulting ORDALT will become a part of the SHIPALT and its installation will be funded by the SHIPALT. Final approval and issuance of the SHIPALT is the responsibility of the SPM. Minor shipboard work associated with an ORDALT installation, that meets the criteria for incorporation into the ORDALT Instruction, will be included in the ECP for review and evaluation by the cognizant CCB and the appropriate SPMs. The criteria for minor shipboard work are as follows:

- The work consists of picking up spare wires existing in cables or installing cables between

two ordnance equipment cabinets or associated junction boxes in the same space.

- The work has no effect or only negligible effect on weight and moment (less than 50 pounds).
- The work shall not exceed existing electrical power, coolant or air conditioning levels available in the work compartments affected.
- The work area is accessible without creating special access.
- The work is in the accomplishment level of an IMA and can be accomplished within a reasonable time (i.e., 20% of total hours on the job).
- The work requires a minimum of additional work centers (welding, fabrication or painting) support.

Completion data such as marked-up drawings, modified wiring diagrams, or other data for update of the SSRs shall be forwarded to the SPM. The SPM will be responsible for forwarding the completion data to the appropriate PY.

9-2.5.3 Configuration Control Board Directive (CCBD)

Delegation of functions to designated performing field activities, such as ORDALT development and evaluation or proof-in functions, shall be documented in each CCBD, as required by reference S9(d). Any additional delegation of functions or termination of delegated functions for specific alterations shall be fully documented and recorded in the CCBD by the appropriate CCB Secretariat.

9-2.5.4 ORDALT Planning Phase

Procurement and installation funding guidelines for alterations are provided as follows:

a. OPN and Weapons Procurement, Navy (WPN) funds will be used to procure and install alterations for FMP installations, and non-FMP installations at shore sites and training activities.

b. Alterations to be installed in new construction ships that are within the Shipbuilding and Conversion, Navy (SCN) obligation work limiting date will be procured and installed using SCN funds. FMP funds may be used during Post Shakedown Availabilities (PSAs) to install alterations procured under OPN or WPN appropriations.

c. Research and Development (R&D) funds are appropriately used to fund Engineering and Manufacturing Development (EMD) prototypes and test and evaluation of some types of alterations prior to the installation of the production alteration kit.

d. Separately planned and budgeted Operation and Maintenance, Navy (O&MN) funds are used to support the NDE-NM database, as described in Section 6 of this manual.

Once an ORDALT number has been assigned to an approved ECP, ORDALT information (number, description, key point check and applicability) is entered into the NDE-NM by the system/equipment LCM or a designated In-Service Engineering Agent (ISEA). The LCM validates the NDE-NM ORDALT data and recommends installation priorities.

The ORDALT number, a brief description of the alteration and key point check data, identifying physical and functional features of the equipment in sufficient detail to enable determination with certainty the accomplishment status of the alteration, will be provided by the designated field activity (i.e., ISEA, Technical Support Activity (TSA)) or other performing activity, to the NDE-NM for incorporation into the index of all alterations. This is in addition to information,

including the loading of total applicability, already provided to the NDE-NM.

9-2.5.5 ORDALT Preparation Phase

a. Upon receipt of the CCBD, associated ECP procurement package, required funding, and first production article hardware/computer program package changes, the performing activity(s) designated by the CCBD shall initiate the preparation of the ORDALT Instruction and kit. Unless otherwise directed by the cognizant PM, initial preparation shall be as a preliminary alteration instruction and evaluation change kit.

b. Concurrent with the preparation of the ORDALT Instruction, the cognizant PM shall ensure that the designated performing activities provide the following data:

(1) Revisions to TMs.
(2) Revisions to Technical Data Packages (TDPs), including drawings, Military Specifications, Weapons Specifications (WSs), Ordnance Specifications (OSs), Critical Item Fabrication Specification.
(3) New required documentation (TDPs, specifications or publications).
(4) Justification for use of proprietary items/data.
(5) Preliminary Provisioning Technical Documentation (PTD).
(6) Test and evaluation data supporting complete design evaluation of the alteration.
(7) Requirements for general or special purpose test equipment additions or deletions.
(8) Requirement for special tools.
(9) Change to training documentation or requirements.
(10) Recommended changes to tactical publications.
(11) Changes to PMS Documentation.
(12) Changes to equipment documentation/tests.
(13) Computer program revisions.

c. Unless otherwise directed by the cognizant PM, the preliminary ORDALT Instruction and supporting information developed by the procurement activity, contractor, or field activity shall be submitted to the designated control activity for review. A copy of the preliminary ORDALT Instruction, along with Program Support Data (PSD) sheets, and the PTD shall be submitted to NAVICP-M for processing allowance list changes, and final disposition of replaced material and material recommended by the PM to be returned to the supply system. NAVICP-M will also verify previously provided supply data during this review.

d. The designated control activities will review the preliminary ORDALT Instruction and documentation changes for technical adequacy and accuracy and for compatibility with the CCBD and ECP procurement package. The designated control activities will accomplish the following:

(1) Verify ships, stations, and equipment applicability in light of those stipulated by the CCBD.
(2) Develop a distribution list and initiate the distribution process.
(3) Revise applicable documentation, as necessary.
(4) Advise NAVICP-M, PM, and SHIPALT preparing activities and others of any changes to the preliminary ORDALT Instruction and propose appropriate amendments to the CCBD, if any.
(5) Incorporate supply data furnished by NAVICP-M.
(6) Prepare or verify final ORDALT Instructions for authentication. Authentication must be by signature of a SPM official and will constitute approval of the ORDALT

Instruction. Signature authority may be delegated to an official of the designated control activity.

Alterations may be blocked (e.g., CIWS Block 12 may consist of ORDALTs 18001, 18002 and 18003) for the convenience of installation.

9-2.5.6 ORDALT Proof-in Phase

The proof-in is part of the ORDALT preparation and is the responsibility of the LCM or the designated ISEA. A proof-in should demonstrate that the ORDALT would achieve the change approved by the CCB. The activity responsible for the proof-in of the ORDALT is identified in the CCBD. Proof-ins are preferably accomplished in a shipboard environment by technicians having the same skill level as those who will generally be installing the alteration. The functions of the proof-in are to ensure:

- The accuracy of the ORDALT Instruction procedures.
- The form, fit and function of kit material.
- The accuracy and completeness of all ILS products.

The activity performing the proof-in is responsible for providing all required ILS products, including sufficient OBRPs for any proof-in that remains as a permanent installation until MSD is achieved.

Proof-in and evaluation determine whether immediate action must be initiated to correct discrepancies in the initial alteration design package (hardware or computer program packages) and/or related documentation prior to authorizing subsequent installations or additional procurement. Proof-in and evaluation, including validation and verification of the alteration instruction, alteration kit and ILS products shall be certified by the performing activity as directed by the PM.

9-2.5.7 ORDALT Implementation Phase

ORDALT kits shall be released for installation by the PM or designated control activity after ensuring that all ILS products for the new configuration, or an approved waiver is in place and a successful proof-in has been accomplished. ILS data shall be entered in NDE-NM. Unless otherwise directed by the cognizant PM, alteration kits shall be delivered to designated control activities. As directed by the PM, stocking and issuing activities for kits shall receive and store kits delivered from the manufacturer. They shall also inspect, perform quality monitoring, cannibalize and dispose of kits.

When individual kit issue control functions have been delegated to the designated control activity for a specific system/equipment, requisitions for ORDALT kits shall be forwarded to the designated control activity by the performing activity responsible for the installation of the ORDALT. If the request is in accordance with the PM's planned implementation schedule or FMP priority, the designated control activities will direct shipment from the stocking and issuing activity. When a request is not in accordance with the implementation plan, the designated control activity shall obtain concurrence from the cognizant PM. A designated control activity shall not release for shipment any ORDALT kit that is not fully logistically supported unless a waiver has first been obtained in accordance with Section 8 of this manual. The designated

control activity also will not release for shipment any ORDALT kit subject to the FMP process that is not appropriately scheduled for installation under that process.

The designated control activity will maintain ORDALT Instructions by the preparation and issuance of revisions and changes, as directed by amendment to the CCBD. In response to feedback (problem reports) from installing activities, the designated control activity will notify the PM, and initiate corrective action within three working days.

The designated control activities will review ORDALT accomplishment reports and update, or ensure update of, the CSA record for each ORDALT in accordance with references S9(f) and S9(g).

9-2.5.8 ORDALT Installation Phase

ORDALTs are installed in accordance with the policies and guidance contained in this manual. Prior to the installation of an ORDALT, the equipment is pre-tested to ensure that it is operating within the prescribed parameters.

After installation of the ORDALT, the equipment is again tested to ensure that the equipment remains operational and that the change has been correctly installed. These tests are prescribed to minimize equipment failures.

Most ORDALTs can be accomplished by IMAs or by AITs in accordance reference S9(c). For ORDALTs installed outside a depot level availability, the NSA will verify the completeness and adequacy of an installation and the support provided in accordance with this manual. These ORDALT installations will be scheduled by inputting the scheduling data into NDE-NM and working through the TYCOM's Alteration Installation Scheduling Conference process.

9-2.5.9 Integrated Logistic Support (ILS)

The impacts of an alteration on ILS products shall be identified in the ECP. The LCM for an ordnance item is responsible for procuring or initiating the development of all ILS products for ORDALTs. All required ILS products shall be available in final form at the time the ORDALT is installed as indicated on the approved ILS Certification Form. For further details on ILS requirements and certification refer to Section 8 of this manual.

9-2.5.10 ORDALT Installation Reporting

ORDALT installation completions shall be reported by the installing activity to the appropriate ISEA and to the assigned CDM in accordance with reference S9(g) for entry into CDMD-OA. For those activities using a Shipboard Non-Tactical ADP Program (SNAP) computer, ORDALT completions shall be reported by entry into the configuration change screen display using one of the following methods:

- Keyboard entry into the SNAP computer.
- Unsequenced Automated Shore Interface (ASI) tape entry into the SNAP Computer.

The ISEAs shall also report ORDALT installation completions by updating the NDE-NM.

9-2.5.11 ORDALT Information Management

The LCM, or the designated ISEA is responsible for CSA for equipment under their cognizance and for accurate and timely reporting of ORDALT planning information. The purpose of this information is to facilitate the procurement, scheduling and reporting of ORDALT installations. The LCM or designated ISEA reports the ORDALT planning information to the NDE-NM and to the appropriate CDM for entry into CDMD-OA. The following is a brief description of each system.

9-2.5.11.1 Navy Data Environment-Navy Modernization (NDE-NM) Information Reporting

NDE-NM is the system that supports the planning and information reporting objectives for ORDALTs installed under the FMP. This system contains the ORDALT planning details, such as, applicability, scheduling and installation information. The LCMs or ISEAs are responsible for timely submission of status and planning information to NDE-NM. Refer to Section 11 of this manual for detailed description of NDE-NM.

9-2.5.11.2 Configuration Data Managers Database-Open Architecture (CDMD-OA) Information Reporting

CDMD-OA is the Navy's designated system for management and control of ship configuration and logistics per reference S9(g). The types of ORDALT information reported to CDMD-OA include scheduling information, planned equipment installations or removals, planned alteration installations and installation status reports. Action steps and milestones for CM are contained in Section 8 of this manual.

9-2.5.12 ORDALT Instruction Numbers

Instructions for the alteration or modification of ordnance equipment in-service (shipboard or shore activities), in store or awaiting installation shall be issued as ORDALT Instructions and prepared in accordance with reference S9(h). ORDALTs also apply to changes installed in systems/equipment in production to identify differences from an established baseline. Policy and procedural guidance for ORDALT Instruction preparation, acquisition and ORDALT installation are contained in references S9(d) and S9(h). ORDALT Instructions direct (or describe) configuration changes to ordnance equipment/systems after delivery from production, or during production after establishment of the product baseline.

The following general rules apply to the assignment of a single ORDALT number to multiple ECPs and multiple ORDALT numbers assigned to a single ECP.

a. Multiple ECPs that are technically and logistically related may be combined into a single ORDALT number. For example, one ECP for a change to a CS Fire Control Switchboard and a second ECP for the Switching Control Panel for that switchboard may be assigned the same ORDALT Instruction number.

b. A single ECP for the same change or for related changes that are to be installed in systems/equipment having different nomenclature may be assigned more than one ORDALT Instruction number. For example, a single ECP may contain changes for a hardware item and changes for a related computer program. That ECP will have two ORDALT numbers (a hardware number and associated computer program number) assigned to it.

c. Changes which are to be installed in different configurations of equipment that require unique parts or installation instructions to accomplish a specified purpose will be treated as

separate changes and will be assigned separate ORDALT numbers.

As a prerequisite for obtaining ORDALT Instruction numbers, Class I ECPs that apply to any Combat Weapons System equipment/system that are to be installed as ORDALTs must have been reviewed by the cognizant CSE.

For specified Gun Weapon Systems, a completed and signed concurrence form from the Weapons System Explosives Safety Review Board (WSESRB) must also accompany the request for assignment of an ORDALT Instruction number in accordance with reference S9(i).

When the proposed change imposes an impact (is conjunctive to or with a SHIPALT) on a ship's system or any external interface with a ship's system, a JCF shall be prepared in accordance with reference S9(e) and submitted to the SPM for approval. When the impact imposed by the change affects a new construction ship, an ECP shall be prepared in accordance with reference S9(d) and submitted to the SPM for approval. A copy of the approved JCF or ECP shall be part of the ORDALT number assignment request (Figure S9-1).

The assignment and control of ORDALT Instruction numbers, instruction change numbers, and revision letters are the responsibility of NAVSEA 04M313.

Prior to being signed, issued or certified for installation, ORDALT Instructions will be reviewed and evaluated per reference S9(h). The equipment PM will be responsible for obtaining approval for release of ORDALTs, with intended applicability to foreign ships, to a foreign government.

Stocking and distribution of ORDALT Instructions will be as directed by the ORDALT Instruction and usually kept at the ISEA's facility. There is no central repository for instructions. Revisions and changes to ORDALT Instructions will have the same distribution as the basic ORDALT Instruction.

ORDALT Instructions will be issued as technical documentation. Accordingly, the title page of these instructions will carry a distribution statement. Revisions and changes to ORDALT Instructions will, in most cases, carry the same distribution statement as the basic ORDALT Instruction.

ORDALT numbers will be assigned according to the following convention: 10,000 series for expendable ordnance items, 16,000 series for generic non-expendable hardware ordnance systems/equipment, 20,000 series for AEGIS Weapon System, 23,000 series for Tomahawk weapon system, 30,000 series for computer program, and 45,000 series for submarine Combat Control System (CCS) changes.

The central database for all ORDALT numbers is NDE-NM. As such, NDE-NM shall be populated with pertinent information as soon as practicable after ORDALT number assignment. NDE-NM shall be loaded with ORDALT description, total applicability, key point check, system program, point of contact, installation support requirements, and ILS information. This information will be easily retrievable from NDE-NM using a view account.

9-2.5.12.1 Assignment of ORDALT Instruction Numbers

After approval of a Class I ECP the cognizant equipment PM will prepare and forward a memorandum requesting assignment of the ORDALT Instruction number in the format of Figure S9-1. A copy of the approved ECP, ECP control sheet, an ECP implementation plan (shown in Figure S9-2), and approved JCF, ship ECP or WSESRB endorsement, if applicable, will be attached to the memorandum. After assignment of the instruction number, NAVSEA 04M313 will prepare an endorsement to the memorandum and return it to the cognizant CCB Secretariat for implementation. The ORDALT Instruction number will be identified in the CCBD.

Emergency or advance assignment of ORDALT Instruction numbers will be requested by a memorandum in the format of Figure S9-3 as specified in reference S9(d). This memorandum shall contain, as a minimum, the ORDALT applicability, estimated work-hours for installation and checkout, level of accomplishment and a justification for the emergency assignment. The request must also attest to the availability of all required ILS products. NAVSEA 04M313 will assign the ORDALT Instruction number by endorsement of the memorandum. The endorsed memorandum will be returned to the requesting authority for appropriate action. An ORDALT Instruction number assigned on an emergency basis must be substantiated by a formal Class I ECP and CCB action within 60 days of the assignment and formal CCB approval within 90 days in accordance with reference S9(b).

9-2.5.12.2 Corrections to Issued ORDALT Instructions

After issuance, ORDALT Instructions remain subject to formal change control procedures in accordance with reference S9(d) but may be revised or changed. Under no circumstances will an ORDALT Instruction be revised without appropriate CCB authority. The use of kit numbers or other designators as ORDALT suffixes is specifically prohibited. Such use indicates a need for either a separate ORDALT Instruction or a revision to an existing ORDALT Instruction. Revisions and changes, or new superseding ORDALT Instructions, are used to correct latent defects discovered after government acceptance of the basic ORDALT. Changes are numbered consecutively and the next letter of the alphabet indicates revisions.

Proposals for revisions to ORDALT Instructions, or a new ORDALT Instruction superseding an existing ORDALT Instruction, will be prepared and submitted as Class I ECPs to the appropriate CCB on ECP DD Form 1692. Upon CCB approval, the cognizant equipment PM will submit a memorandum in the format of Figure S9-1 to NAVSEA 04M313 requesting assignment of an ORDALT Instruction revision letter or a new ORDALT Instruction number as determined by the CCB review. After NAVSEA 04M313 has assigned the revision letter or new instruction number, the CCB Secretariat will issue a CCBD implementing the action.

Changes to ORDALT Instructions will be prepared in complete narrative text in accordance with procedures contained in reference S9(h). The complete change will be attached to an approval and cover sheet prepared in the format of Figure S9-4 and submitted to the PM for approval. Approval will be signified by the PM's signature on the Approval and Cover Sheet. Signature authority for approval of changes may be delegated by the PM to a TSA or ISEA. NAVSEA 04M313 will be notified in writing of such delegation. A memorandum in the format of Figure S9-1 will be submitted to NAVSEA 04M313 identifying the proposed change number and requesting the assignment of that number. After the ORDALT Instruction change number has

been approved and endorsed by NAVSEA 04M313, the CCB Secretariat will issue an amended CCBD to implement the change.

9-2.5.12.3 Cancellation of ORDALT Instruction Numbers

ORDALT Instruction numbers can only be cancelled by documented action from the cognizant PM or the cognizant ISEA via the CCB, with a copy of the action to NAVSEA 04M313. Letter, memorandum or a superseding Class I ECP, if applicable, may make the cancellation. Cancellations will become effective upon issuance of an amended CCBD. ORDALTs that have already been installed in at least one ship or system technically cannot be cancelled. Therefore, all letters and all CCBDs initiating or effecting cancellation will contain one of the following statements as applicable:

"There have been no installations of ORDALT (xxxxx) and none are planned." or

"ORDALT (yyyyy) has been installed in (XX) ships. No further installations are planned to be accomplished. For all intent and purposes, ORDALT (yyyyy) is considered 100 percent complete."

ORDALT number changes and revisions, cancellations and completions will be loaded in NDE-NM either on line or by file submission.

FIGURE S9-1

SAMPLE ORDALT Instruction Number (Change or Revision) Request Memorandum

4130
Ser
(Date)

MEMORANDUM

From: (Requesting Code)
To: NAVSEA 04M313

Subj: REQUEST FOR ORDNANCE ALTERATION (ORDALT) INSTRUCTION NUMBER (CHANGE 0R REVISION) ASSIGNMENT

Ref: (a) NAVSEA SL720-AA-MAN-010 (Section 9)

Encl: (1) ECP (with process control sheet)_ _ _ _ _ _ _ _ (for original or revision), or (1) Change _ _ _ _ _ to ORDALT _ _ _ _ _ _ _ _ (with Approval and Cover Sheet), or (1) Revision _ _ _ _ _ to ORDALT _ _ _ _ _ _ _ _ (with Approval and Cover Sheet),
(2) Approved Justification/Cost Form (if applicable)
(3) Approved Ship ECP
(4) Approved WSESRB Process Control Form (if applicable)

1. In accordance with reference (a), request ORDALT number, ORDALT Change number or ORDALT Revision letter be assigned to enclosure (1).

2. (Use as many paragraphs as required to provide justification or explanatory data as necessary).

3. The point of contact regarding this request is _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ , Code _ _ _ _ _ _ _ _ _ _ , phone _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ .

_ _
(Requesting Official)

FIGURE S9-2

Sample ECP Implementation Plan

ECP ORIGINATOR _____

ECP NUMBER _____

CHANGE DESCRIPTION _____

SYSTEM/EQUIPMENT AFFECTED _____

SHIP AND SHORE SITE APPLICABILITY _____

RECOMMENDATION FOR APPROVAL/
DISAPPROVAL REVIEW ACTION _____

EMERGENCY ACTION _____

CCB SECRETARIAT ACTION _____

CCB ACTION _____

SUPPORTING DOCUMENTATION
- JCF _____
- SHIP ECP _____
- WSESRB _____

SUPPORTING INFORMATION
- INTERFACE IMPACT _____
- EMBEDDED EQUIPMENT _____
- COMPUTER PROGRAM _____
- PROOF IN DATA _____
- PROCUREMENT FUNDING _____
- ILS _____

FMP CHECK SHEET
- $ VALUE OF FMP REQUIRED FUNDS _____
- CHANGE PROGRAMMED IN FMP AND LOADED IN NDE-NM _____
- CONJUNCTIVE ALTERATIONS PROGRAMMED AND LOADED _____
- SAFETY _____

SCN CHECK SHEET _____

FIGURE S9-3

SAMPLE Emergency or Advance ORDALT Instruction Number Request Memorandum

4130
Ser:
(Date)

MEMORANDUM

From: (Requesting Code)
To: NAVSEA 04M313

Subj: REQUEST FOR EMERGENCY (OR ADVANCE) ORDALT INSTRUCTION NUMBER ASSIGNMENT (Circle appropriate one.)

Ref: (a) NAVSEA SL720-AA-MAN-010 (Section 9)

1. In accordance with reference (a), request an emergency (advance) ORDALT number assignment for Engineering Change Proposal (ECP) (ECP Number) for (System or Equipment, MK and MOD or JETDS Designation.)

2. The following data applies:

a. Alteration applicability: _ _ _

FIGURE S9-4

Sample ORDALT Instruction Change Number Assignment Approval and Cover Sheet

CAGE CODE 53711

TITLE: ORDALT No. XXXXX

CHANGE NO. X

SUBJECT: Date:

Approved By: _ _ _

SUBSECTION 9-3 COMBAT SYSTEMS ELECTRONIC EQUIPMENT AND SYSTEMS FIELD CHANGES (FC)

9-3.1 Scope of Subsection 9-3

This subsection defines the procedures, roles and responsibilities associated with the preparation, development, and installation of FCs in CS electronic equipment/systems under the cognizance of the FMP.

9-3.2 Definition of a Field Change

A FC is any modification made to electronic equipment/systems (e.g. search RADARs, combat system switchboards, electronic warfare equipment) with the exception of ASW equipment/systems after establishment of a product baseline and after delivery to the Navy. Electronic equipment modifications are initiated for one or more of the following reasons:

- To correct a design defect
- To change equipment operational capability
- To eliminate safety hazards
- To update obsolete components

9-3.3 Policies Concerning Field Changes

All approved modifications to configuration baselines of CS electronic equipment/systems, except ASW systems, and their associated components shall be accomplished as formal FCs. FCs shall not be installed until such time as the required ILS products are certified available. FC availability, along with the FC kit National Stock Number (NSN) and ordering data may be published in the Engineering Information Bulletin (EIB). However, the EIB is not to be used in place of a formal FC Instruction or Field Change Bulletin (FCB).

9-3.4. Organizational Responsibilities for Field Changes

Roles and responsibilities required for the approval, development and installation of FCs are described below.

9-3.4.1. Equipment Life Cycle Manager (LCM)

The LCMs for FCs have technical and ILS responsibility for assigned equipment. Specific responsibilities of the LCM include:

- Process ECPs to effect transition of an approved Class I ECP into a FC and assign FC numbers.
- Prepare a JCF if a SHIPALT is required.
- Plan, program and budget for FC procurement and ILS products.
- Provide procurement budget detail, estimated cost, and schedule for FC installations to the NAVSEA ORDALT Program (NAVSEA 04M313).
- Plan and monitor the development and implementation of ILS products for approved FCs.
- Maintain CM over assigned equipment.
- Provide accurate and timely FC planning and installation information and input this data into the NDE-NM.

9-3.4.2 Combat Systems Engineer (CSE)

The roles and responsibilities of the CSE in each cognizant SPM organization are as follows:

- Conduct CS engineering reviews for a ship class for CS interface impact.
- Provide technical approval for JCFs, if the requirement for a SHIPALT is established.

9-3.4.3 FMP ORDALT Line Item Manager (NAVSEA 04M313)

The roles and responsibilities of the FMP ORDALT Line Item Manager are as follows:

- Establish FC policies and procedures.
- Define program requirements and establish tasking and planning estimates for the accomplishment of FCs by installing activities.
- Formulate FC installation budget requirements for inclusion in the FMP budget prepared for the FMP Financial Manager (NAVSEA 013) and is NAVSEA's execution agent for FCs installed under the FMP. Line item manager responsibilities regarding budgeting and financial management are detailed in Section 6 of this manual.
- Forward signed funding requests to the FMP Financial Manager (NAVSEA 013) for installation funding as detailed in Section 6 of this manual.
- Prepare the ORDALT portion (including FCs) of the Industrial Activity Authorization Letter.
- Obtain SPM's and the FMP Financial Manager's (NAVSEA 013) concurrence prior to releasing any correspondence that changes scope of FC work to be accomplished by shipyards or contractors under the cognizance of the NSA.
- Manage and maintain the NDE-NM and associated functions including alteration installation scheduling activities and conference, alteration installation waivers, data input, and validation and verification of system data.

9-3.4.4 FMP Financial Manager (NAVSEA 013)

The roles and responsibilities of the FMP Financial Manager are detailed in Section 6 of this manual.

9-3.5 Field Change Process

The following subsections provide a brief description of the FC process.

9-3.5.1 Overview of Field Change Process

FCs are developed from Class I ECPs prepared in accordance with reference S9(b). The CCBD directs the implementation of a FC in accordance with reference S9(d). All ECPs are evaluated for interface impact within or between the system/equipment organizations, the interfacing system/equipment technical manager affected, and the CSE who will all be members of the CCB. ECPs that impose an impact on ship's systems, such as an increase in ship's power or cooling requirements, shall be submitted as PTIs to the SPM for approval. The SPM must also determine if a SHIPALT is required. When a proposed FC requires or is part of a SHIPALT, the LCM having the greatest responsibility or impact will be designated the lead for development of the JCF in accordance with reference S9(e). Under these circumstances, the FC becomes a part of the SHIPALT and is funded by the SHIPALT. Final approval and issuance of the SHIPALT is the responsibility of the SPM. An alteration or modification to in-service equipment, when approved by the CCB is implemented under the FMP only after it has been assigned a FC number. If the FC requires a SHIPALT, it is processed in accordance with Section 4 of this manual.

9-3.5.2 Field Change Development and Implementation

FCs are developed under the direction of the equipment LCM. FCs are normally procured in two phases:

- Evaluation or pre-production phase.
- Production phase.

9-3.5.2.1 Field Change Evaluation Phase

The purpose of the FC evaluation phase is to:

- Determine the military suitability of a pre-production FC.
- Determine the adequacy of the modification to correct the problem identified in the ECP prior to preparation of a production FC.

9-3.5.2.2 Production Field Change

A production FC provides the material necessary to accomplish an approved modification to applicable electronic equipment and to correct related publications. A production FC is identified by an assigned FC number. Production FCs fall into the following types:

- Type I - A FC that requires parts, all of which are included in a kit consisting of publications, parts, materials and special tools required to accomplish the change to one equipment and to revise existing equipment nameplates, publications and charts as required.
- Type II - A FC that requires parts, none of which are included with the FC. The Type II FC may be either a kit consisting of a publications package or articles for a publication providing instructions for accomplishing the FC and for correcting related publications.
- Type III - A FC that requires parts, some of which are included in a kit. The FC kit consists of a publication package and some of the parts, materials and special tools required to accomplish the FC to one equipment and to revise existing nameplates, publications and charts as required.
- Type IV - A FC that does not require parts or the use of special tools. This FC may be either a kit consisting of a publications package or articles for a publication providing instructions for accomplishing the FC and for correcting related publications.

9-3.5.3 Field Change Funding Class

Funding and installation responsibility for production FCs is designated by classes. The following classes apply:

- Class 1 - A FC approved for accomplishment by forces afloat or station personnel; no installation funding is required.
- Class 2 - A FC that requires Fleet Installation and TYCOM funding.
- Class 3 - A FC that normally requires industrial assistance for installation. The appropriate Systems Command funds it.

All approved FCs shall be designated as Class 1 or Class 3, whichever is most appropriate. Class 2 FCs generally will not be used. Once the FC number has been assigned to an approved ECP, the FC number is entered into the NDE-NM by the system/equipment LCM or a designated ISEA. The LCM validates the NDE-NM data and recommends installation priorities in accordance with reference S9(f). FCs requiring installation with a SHIPALT are funded as part of that SHIPALT under the FMP. Most FCs can be accomplished outside depot availabilities by IMA personnel or AITs in accordance with reference S9(c). These FCs will also be funded by

the FMP.

9-3.5.4 Field Change Installation

Prior to the installation of a FC, the equipment is pre-tested to ensure that it is operating within the prescribed parameters. After the installation of the FC, the equipment is again tested to ensure that the equipment remains operational and that the change has been correctly installed. These tests are prescribed to minimize equipment failures.

For FCs installed outside a depot availability, the NSA will verify the completeness and adequacy of an installation and the ILS products provided in accordance with reference S9(c) and this manual. These FC installations will be scheduled by inputting the scheduling data into NDE-NM and coordinating with the TYCOM's Alteration Installation Scheduling Conference process.

9-3.6 Integrated Logistics Support (ILS)

The LCM for electronic CIs is responsible for procuring or initiating the development of all required ILS products for FCs. All required ILS products must be available in final form at the time the FC is installed, which is indicated by a formal alteration release letter, or ILS Certification Form by the program office certifying that all ILS products are in place. For further information detailing the ILS requirements and certification process refer to Section 8 of this manual.

The impact of an alteration on ILS shall be identified in the ECP. Changes to TMs and the PMS shall be developed concurrently with the preparation of the FC bulletin and the FC kit. At the end of the installation, all required OBRPs will be provided or the FC installer will advise the ship to requisition the allowance changes identified in the FC Instruction. Requisitions for initial outfitting OBRPs will be sent to the initial outfitting Technical Operating Budget (TOB) holder, Fleet and Industrial Supply Center (FISC) Puget Sound. If an APL has not yet been developed for the system, a Preliminary Allowance List (PAL) will be developed. ISS shall only be used on unstable design equipment for which provisioning cannot be accomplished. The NSA shall verify the delivery of all required ILS products in accordance with the requirements of Section 8 of this manual.

9-3.7 Field Change Installation Reporting

FC installation completions shall be reported by the installing activity to the appropriate ISEA and to the assigned CDM in accordance with references S9(f) and S9(g) for entry into CDMD-OA. For those activities using a SNAP computer, FC completions shall be reported by entry into the configuration change screen display using one of the following methods:

- Keyboard entry into the SNAP computer.
- Unsequenced ASI tape entry into the SNAP computer.

The ISEAs shall also report FC installation completions by updating NDE-NM.

9-3.8 Field Change Information Management

The LCM, or designated ISEA, is responsible for CSA for equipment under their cognizance and for accurate and timely reporting of FC planning information. The purpose of this information is

to facilitate the procurement, scheduling and reporting of FC installations. The LCM or designated ISEA reports the FC planning information to the NDE-NM and to the appropriate CDM for entry into CDMD-OA.

The following is a brief description of each system.

9-3.8.1 Navy Data Environment-Navy Modernization (NDE-NM) Information Reporting
NDE-NM is the system that supports the planning and information reporting objectives for FCs installed under the FMP. This system contains the FC planning details, such as, applicability, scheduling and installation information. The LCMs or ISEAs are responsible for timely submission of status and planning information to NDE-NM. Refer to Section 11 of this manual for detailed information on NDE-NM requirements.

9-3.8.2 Configuration Data Managers Database-Open Architecture (CDMD-OA) Information Reporting
CDMD-OA is the Navy's designated system for management and control of ship configuration and logistics in accordance with reference S9(g). The types of FC information reported to CDMD-OA include scheduling information, planned equipment installations or removals, planned alteration installations required ILS products and installation status reports. Action steps and milestones for CM are contained in Section 8 of this manual.

SUBSECTION 9-4 ANTI-SUBMARINE WARFARE/COMBAT SYSTEM ENGINEERING CHANGES (ECs)

9-4.1 Scope of Subsection 9-4

This subsection defines the procedures, roles, and responsibilities associated with the preparation, development, and installation of ASW/CS ECs. It applies only to installations under the cognizance of the FMP. This includes all SONAR/Acoustic Warfare systems and equipment except:

- AN/BQQ-5, AN/BSY-1, AN/BSY-2
- TRIDENT SONAR Defensive Weapons System (DWS)
- SSBN Unique SONARs
- Ordnance Items and Expendables
- Mine Warfare Expendables
- Mobile Targets
- Ranges

9-4.2 Definitions for Subsection 9-4

An ASW/CS EC is the medium by which an approved modification or alteration is incorporated into ASW/CS equipment after the establishment of the product baseline and delivery to the Navy. ASW/CS ECs are initiated for one or more of the following reasons:

- To correct a design defect
- To change equipment operational capability
- To eliminate safety hazards
- To update obsolete components

Other definitions that apply to this subsection are:

- ASW/CS Engineering Change Order (ECO) - An ASW/CS ECO is the document that provides detailed step-by-step instructions, test procedures, and lists of parts and materials supplied or required, to accomplish the ASW EC.
- ASW/CS Engineering Change Kit - An ASW/CS EC Kit contains all parts and materials necessary to support an EC. These could include the ECO, publications correction material (for example, TM change pages, revised PMS or updated APLs), all hardware, software, OBRPs, and I&Cs and other materials.

9-4.3 Policies Concerning Anti-Submarine Warfare (ASW)/Combat System (CS) ECs

Policies concerning ASW ECs developed for SONAR/Acoustic Warfare systems and equipment are defined in reference S9(j).

9-4.4 Organizational Responsibilities for ASW/CS ECs

Roles and responsibilities required for the approval, installation, and support of ASW/CS ECs are described below.

9-4.4.1 ASW/CS Equipment Life Cycle Manager (LCM)

The LCM, upon receipt of the CCBD, in conjunction with NAVSEA Contracts Directorate (NAVSEA 02), will issue formal contractual actions for Class I ECP approval and EC

preparation and procurement, including associated ILS products. Specific responsibilities of the LCM include:

- Process ECPs to effect transition of an approved Class I ECP into an EC and assign EC numbers to approved Class I ECPs.
- Prepare a JCF if a conjunctive SHIPALT requirement is indicated.
- Establish EC alteration priority level in accordance with reference S9(j).
- Plan, program and budget for EC procurement and ILS products. Provide procurement budget detail as well as estimated cost schedule for EC installation to the SPM.
- Plan and monitor the development and implementation of ILS products for approved ECs.
- Maintain CM over assigned equipment.
- Report EC planning and installation information accurately and timely and input this data into the NDE-NM.
- Depending upon the complexity and extent of the EC, a FCA and a PCA may be required and as deemed necessary by the LCM. These audits are conducted in accordance with reference S9(k).
- Process alteration installation waiver requests.

9-4.4.2 Combat Systems Engineer (CSE)

The responsibilities of the CSE in each cognizant SPM organization are as follows:

- Conduct CS engineering reviews of all Class I ECPs for a ship class for CS interface impact, if the requirement for a conjunctive SHIPALT is established during the ECP evaluation phase.
- Prepare and provide technical approval for JCFs, if the requirement for a conjunctive SHIPALT is established during the ECP evaluation phase.
- Review alteration installation waiver requests and provide concurrence as appropriate.

9-4.4.3 FMP ORDALT Line Item Manager (NAVSEA 04M313)

The responsibilities of the ORDALT FMP Line Item Manager are as follows:

- Establish FMP ASW EC policies and procedures.
- Define program requirements and establish tasking and planning estimates for the accomplishment of ASW ECs by installing activities.
- Formulate ASW EC budget requirements for inclusion in the FMP budget prepared by NAVSEA 013 and be NAVSEA's execution agent for ASW ECs installed under the FMP. Line item manager responsibilities regarding budgeting and financial management are also specified in Section 6 of this manual.
- Forward signed funding requests to the FMP Financial Manager (NAVSEA 013) for installation funding as detailed in Section 6 of this manual.
- Prepare the ORDALT portion (includes ASW ECs) of the SHIPALT Authorization Letter.
- Obtain SPM’s and FMP Financial Manager's (NAVSEA 013) concurrence prior to releasing any correspondence that changes scope of ASW EC work to be accomplished by shipyards or contractors under the cognizance of the NSA.
- Manage and maintain the NDE-NM and associated functions including alteration installation scheduling activities and conference, alteration installation waivers, data input, and validation and verification of system data.

9-4.4.4 FMP Financial Manager (NAVSEA 013)
The roles and responsibilities of the FMP Financial Manager are detailed in Section 6 of this manual.

9-4.4.5 ASW/CS Configuration Control Board (CCB) Secretariat
The ASW CCB Secretariat will ensure that proposed modifications or alterations are prepared as Class I ECPs in accordance with reference S9(b). Class I ECPs are processed by the CCB Secretariat and approved by the CCB in accordance with references S9(d), S9(j) and S9(l). CCBDs, documenting the disposition of ECPs and authorizing EC kit procurement, are prepared and distributed by the CCB Secretariat. Approved ECPs are developed for implementation as ASW ECs. EC numbers are assigned by the ASW CCB Secretariat.

9-4.4.6 ASW/CS EC Preparing Activity
A Navy or contractor organization will prepare the ASW EC. The ASW EC shall consist of the following:

- Engineering Change Order
- Publications Correction Material
- Engineering Change Kit

9-4.5 ASW/CS EC Process
The following provides a brief description of the ASW EC process.

9-4.5.1 Overview of ASW/CS EC Process
All ASW ECs are generated from approved Class I ECPs prepared in accordance with reference S9(b). In accordance with references S9(d) and S9(l), implementation of the ASW EC is directed by a CCBD. When a conjunctive SHIPALT is required a JCF must be prepared, evaluated, and approved in accordance with reference S9(e).

9-4.5.2 Evaluation Phase for ASW/CS ECs
An alteration or modification to in-service equipment, when approved by the CCB Chairperson, is implemented under the FMP only after it has been assigned an EC number. If the proposed improvement is required to support a PMI, it is processed in accordance with Section 4 of this manual.

All ECPs are evaluated for interface impact. If there is an impact within or between the system/equipment organizations, the interfacing system/equipment technical manager affected and the CSE will all be members of the CCB. ECs that impose an impact on ship's systems, such as an increase in ship's power or cooling requirements, shall be submitted as PTIs to the SPM for approval and determination of a requirement for a conjunctive SHIPALT. The LCM having the greatest responsibility or impact will be designated the lead for development of the JCF in accordance with reference S9(e). The resulting EC will become a part of the SHIPALT and its installation will be funded by the SHIPALT. Final approval and issuance of the SHIPALT is the responsibility of the SPM.

9-4.5.3 Planning Phase for ASW/CS ECs
Once an ASW EC number has been assigned to an approved ECP, the EC number is entered into

the NDE-NM upon receipt of the CCBD. The LCM recommends priorities in accordance with reference S9(m).

9-4.5.4 Proof-in Phase for ASW/CS ECs

ASW/CS ECs are proofed and evaluated to ensure that the change achieves its intended purpose. Test procedures are submitted by the EC preparing activity to the LCM or the designated ISEA for review of technical content. Subsequent to completion of testing, which may be performed as part of the FCA, a test report documenting test results is submitted to the LCM.

9-4.5.5 Approval of ASW/CS ECs

Approval of ASW/CS ECs is contingent upon the following:

- ECO review and approval by the LCM.
- Technical Manual Identification Number (TMIN)-Request (TMIN-R) preparation by the LCM and assignment of TMIN by Naval Sea Data Support Activity (NSDSA) in accordance with reference S9(n).
- Evaluation Test Report acceptance and concurrence by the LCM.

9-4.6 Integrated Logistics Support (ILS)

The LCM for an ASW system/equipment is responsible for procuring or initiating the development of all ILS products for ASW ECs. The ILS products must be available at the time the EC is installed as indicated by a formal alteration release letter or ILS Certification Form completed by the program office. For further information concerning ILS requirements and certification refer to Section 8 of this manual.

- The impacts of an alteration on ILS shall be identified in the ECP. Changes to TMs, PMS and other support documentation shall be developed concurrently with the preparation of the ASW EC Instruction and kit. OBRPs and MAMs are either provided as part of the EC kit or the ASW EC installer will advise the ship to requisition allowance increases. Requisitions for initial outfitting spares will be sent to the TOB holder, FISC Puget Sound. An ASW EC must be supported with ISS until MSD is achieved. If a system/equipment does not have an existing APL, a PAL will be issued for the interim until the APL has been completed. ISS shall only be used on unstable design equipment for which provisioning cannot be accomplished. The ILS products for ASW ECs are detailed in Section 8 of this manual.

9-4.7 EC Installation Reporting

EC installation completions shall be reported by the installing activity to Naval Undersea Warfare Center (NUWC) Division Newport, Norfolk Detachment and to the assigned CDM in accordance with reference S9(g) for entry into the CDMD-OA. For those activities using a SNAP computer, EC completions shall be reported by entry into the configuration change screen display using one of the following methods:

- Keyboard entry into the SNAP computer.
- Unsequenced ASI tape entry into the SNAP computer.

The ISEAs shall also report EC installation completions by updating the NDE-NM.

9-4.8 EC Information Management

NUWC Division Newport, Norfolk Detachment, as designated by the LCM, is responsible for the CSA for ASW SONAR/Acoustic equipment and for the accurate and timely reporting of EC planning information. The purpose of this information is to facilitate the procurement, scheduling and reporting of EC installations. NUWC Division Newport, Norfolk Detachment, reports the EC planning information to the NDE-NM and to the appropriate CDM for entry into CDMD-OA. The following is a brief description of each system.

9-4.8.1 Navy Data Environment-Navy Modernization (NDE-NM) Information Reporting

NDE-NM is the system that supports the planning and information reporting objectives for ECs installed under the FMP that are not installed as part of a SHIPALT. This system contains the EC planning details such as applicability, scheduling and installation information. NUWC Division Newport, Norfolk Detachment, is responsible for timely submission of status and planning information to NDE-NM. Refer to Section 11 of this manual for details on NDE-NM.

9-4.8.2 Configuration Data Managers Database-Open Architecture (CDMD-OA) Information Reporting

CDMD-OA is the Navy's designated system for management and control of ship configuration and logistics in accordance with reference S9(g). The types of EC information reported to CDMD-OA include scheduling information, planned equipment installation or removals, planned alteration installations and installation status reports. Action steps and milestones for CM are contained in Section 8 of this manual.

SUBSECTION 9-5 MARINE GAS TURBINE (MGT) TECHNICAL DIRECTIVE (TD) PROGRAM

9-5.1 Scope of Subsection 9-5

This subsection defines the procedures, roles and responsibilities associated with the preparation, development and installation of MGT TDs. It applies to all installations under the cognizance of the FMP. This includes all MGT systems and equipment.

9-5.2 Background for Subsection 9-5

NAVSEA has established a MGT TD Program as the authorizing medium for directing the accomplishment and recording of modifications and one-time inspections to MGT Equipment (MGTE) and Engineering Control System Equipment (ECSE) on MGT ships. The TD Program, as part of the Maintenance and CM Program, is an important element in maintenance of the hardware to a configuration that provides the optimum conditions of safety, and operational and material readiness.

The NAVSEA MGT TD Program provides for the issuance of documents authorized and promulgated by NAVSEA or as specifically delegated by NAVSEA. Each document contains the information necessary to properly inspect or alter the configuration of MGTE or ECSE on MGT ships subsequent to the establishment of a baseline configuration for each respective equipment.

9-5.3 Definitions for Subsection 9-5

A MGT TD is the medium by which an approved modification or alteration is incorporated into MGTE after the establishment of the product baseline and delivery to the Navy. MGT TDs are initiated for one or more of the following reasons:

- To correct a design defect
- To change equipment operational capability
- To eliminate safety hazards and/or
- To update obsolete components.

Other definitions applicable to this subsection are:

a. MGT ECP - the proposed EC document that provides detailed step-by-step instructions, test procedures and lists of parts and materials supplied or required to accomplish the MGT TD once the ECP is officially approved.

b. ECP Kit – the assemblage of the ECP, publications, correction material (for example, TM change pages, revised PMS or updated APLs) and all hardware, software, OBRPs, I&C spares and other materials necessary to install and support an engineering change.

9-5.4 Policies Concerning Marine Gas Turbine (MGT) Technical Directives (TDs)

Policies concerning MGT TDs developed for MGT systems and equipment are defined in reference S9(o).

9-5.5 Organizational Responsibilities for Marine Gas Turbine (MGT) Technical Directives (TDs)

Primary roles and responsibilities required for the approval, installation and support of MGT

TDs are summarized below. Detailed responsibilities are contained in reference S9(o).

9-5.5.1 Marine Gas Turbine (MGT) Life Cycle Manager (LCM)

The LCM (NSWCCD-SSES Code 933), upon joint approval of a MGT ECP and the formalization of the Joint CCB (JCCB) Directive (JCCBD), issues formal contractual actions for ECP approval and TD preparation and procurement, including associated ILS products. Specific responsibilities of the LCM include:

- Process ECPs to effect transition of an approved ECP into a TD and assign TD numbers to approved ECPs.
- Direct the preparation of a JCF or MGT ECP if a conjunctive SHIPALT or TD requirement is indicated and to establish NAVSEA LCM TD/alteration priority level in accordance with references S9(p) and S9(q).
- Establish NAVSEA LCM TD/alteration priority level in accordance with references S9(p) and S9(q).
- Plan, program and budget for TD procurement and ILS. Provide procurement budget detail as well as estimated cost schedule for TD installation.
- Plan and monitor the development and implementation of ILS for approved TDs.
- Maintain CM over assigned equipment.
- Report TD planning information accurately and timely.
- Depending upon the complexity and extent of the TD, a FCA and a PCA may be required and as deemed necessary by the LCM. These audits are conducted in accordance with reference S9(p).

9-5.5.2 Marine Gas Turbine (MGT) System Engineering Group

The responsibilities of the MGT Systems Engineering Group (NSWCCD-SSES) are as follows:

- Conduct MGT system engineering reviews of all ECPs for a ship class for MGT system interface impacts, if the requirement for a conjunctive alteration is established during the ECP evaluation phase.
- Prepare and provide technical approval for ECPs or JCFs as applicable, if the requirement for a conjunctive alteration is established during the ECP evaluation phase.

9-5.5.3 Marine Gas Turbine (MGT) Joint Configuration Control Board (JCCB)

The MGT JCCB consists of representatives from the MGT Systems Engineering Group, the MGT PM, the MGT LCM and the SPM as well as depot and other Supply Support and support agents deemed appropriate by the MGT PM. This board will ensure that proposed modifications or alterations are prepared as ECPs in accordance with reference S9(b). ECPs are processed and approved by the JCCB in accordance with references S9(p) and S9(q). JCCBDs, documenting the disposition of ECPs and authorizing ECP kit procurement, are prepared and distributed by the MGT PM, who functions as the chair of the JCCB. Approved ECPs are developed for implementation as MGT TDs. TD numbers are assigned by the MGT JCCB Chairs.

9-5.5.4 Marine Gas Turbine (MGT) Technical Directives (TDs) Preparing Activity

A Navy or contractor organization will prepare the MGT TD in accordance with reference S9(o). The MGT TD shall consist of the following:

- ECP scope and description of change incorporated into TD format.
- Publications Correction Material (Technical Documentation; e.g.: PMS, TM, etc.)

- EC Kit (hardware), to include installation hardware and, if applicable, OBRPs.
- Procedures necessary for executing the change.

9-5.6 Marine Gas Turbine (MGT) Technical Directives (TDs) Process

A brief description of the MGT TD process follows. Detailed processes and procedures are provided in reference S9(o).

9-5.6.1 Overview of the Marine Gas Turbine (MGT) Technical Directives (TDs) Process

All MGT TDs are generated from approved ECPs prepared in accordance with reference S9(o). A JCCBD directs implementation of the MGT TD in accordance with reference S9(r). When a conjunctive alteration is required, an ECP or JCF, as applicable, must be prepared, evaluated and approved in accordance with references S9(e), S9(o), S9(p) and S9(q). The alteration must be evaluated and approved by the JCCB.

9-5.6.2 Evaluation Phase for Marine Gas Turbine (MGT) Technical Directives (TDs)

An alteration or modification to in-service equipment, when approved by the JCCB, is implemented under the FMP only after it has been assigned a TD number in accordance with reference S9(o). All ECPs are evaluated for interface impact. If there is an impact within or between the system/equipment organizations, the interfacing system/equipment technical manager affected and the MGT System Engineer will all be members of the JCCB. ECPs that impose an impact on ship's systems, such as an increase in ship's power or cooling requirements, shall be submitted as PTIs to the SPM for approval and determination of a requirement for a conjunctive alteration. The LCM having the greatest responsibility or impact will be designated the lead for development of the ECP or JCF. The resulting ECP/JCF will become a part of the formal TD or SHIPALT and its installation will be funded accordingly. Final approval and issuance of a TD is the responsibility of the LCM.

9-5.6.3 Prioritization Phase for Marine Gas Turbine (MGT) Technical Directives (TDs)

Once a MGT TD number has been assigned to an approved ECP, the TD number is entered into the NDE-NM by NSWCCD-SSES upon receipt of the JCCB Approval and Implementation letters issued by the JCCB Chair. The LCM recommends priorities in accordance with reference S9(o). Priorities must be discussed and approved at a MGT Program Steering Committee Conference chaired by the MGT PM.

9-5.6.4 Proof-in Phase for Technical Directives (TDs)

MGT TDs are proofed and evaluated to ensure that the change achieves its intended purpose and relevant documentation and procedures are validated prior to full scale TD deployment. Test procedures are submitted by the TD preparing activity to the LCM and the designated ISEA (NSWCCD-SSES) for review of technical content. Subsequent to completion of testing, a test report documenting test results is submitted to the LCM.

9-5.6.5 Approval of Marine Gas Turbine (MGT) Technical Directives (TDs)

Approval of MGT TDs is contingent upon the following:

- ECP review and approval by the LCM.
- TMIN-R preparation by NSWCCD-SSES, and assignment of TMIN.
- Evaluation Test Report acceptance and concurrence by the LCM.

9-5.7 Integrated Logistics Support (ILS)

The LCM for a MGT system/equipment is responsible for procuring or initiating the development of all ILS products for MGT TDs. All required ILS products must be available at the time the TD is installed. When an ILS product is missing, a waiver for installation must be authorized as detailed in Section 8 of this manual.

The impacts of an alteration on ILS shall be identified in the ECP. Changes to TMs, PMS and other support documentation shall be developed concurrently with the preparation of the MGT ECP Instruction and kit. Initial OBRPs and MAMs are either provided as part of the EC kit per reference S9(s) or the MGT EC installer will advise the ship to requisition allowance increases that are identified in the MGT EC instruction. Requisitions for initial outfitting spares will be sent to the TOB holder, FISC Puget Sound. A MGT TD must be supported with ISS until MSD is achieved.

If a system or equipment does not have an existing APL, a PAL will be developed in accordance with reference S9(t) for the interim until the APL has been completed. ISS shall only be used on unstable design equipment for which provisioning cannot be accomplished. Refer to Section 8 of this manual for a description of ILS requirements.

9-5.8 Technical Directive (TD) Installation Reporting

TD installation completions shall be reported by the installing activity to NSWCCD-SSES, and to the assigned CDM in accordance with reference S9(g) for entry into the CDMD-OA. Changes to engine configuration shall be reflected in the applicable engine logbook. TD completions shall be reported by entry into the configuration change screen display using one of the following methods:

- Keyboard entry into the SNAP computer.
- Unsequenced ASI tape entry into the SNAP computer.

9-5.9 Technical Directive (TD) Information Management

NSWCCD-SSES, as the designated LCM, is responsible for the CSA for MGT equipment and for the accurate and timely reporting of TD planning information. The purpose of this information is to facilitate the procurement, scheduling and reporting of TD installations. NSWCCD-SSES reports the TD planning information into the NDE-NM and to the appropriate CDM for entry into CDMD-OA in accordance with reference S9(g). The following is a brief description of each system.

9-5.9.1 Information Reporting

NDE-NM is the system that supports the planning and information reporting objectives for TDs installed under the FMP that are not installed as part of a SHIPALT. This system contains the TD planning details such as procurement, scheduling and installation information. NSWCCD-SSES is responsible for timely submission of status and planning information. Refer to Section 11 of this manual for detailed information concerning NDE-NM.

9-5.9.2 CDMD-OA Information Reporting

CDMD-OA is the Navy's designated system for management and control of ship configuration and ILS in accordance with reference S9(g). The types of ECP information reported to CDMD-

OA include scheduling information, planned equipment installation or removals, planned alteration installations and installation status reports. Action steps and milestones for CM are contained in Section 8 of this manual.

SUBSECTION 9-6 SUBMARINE SHIPALT PACKAGE PROGRAM

9-6.1 Scope of Subsection 9-6

This subsection describes the policies, procedures, and responsibilities that encompass the SHIPALT development process leading to the selection and issue of improvements as a SHIPALT in the Submarine SHIPALT Package Program.

9-6.2 Background for Subsection 9-6

The Submarine SHIPALT Package Program for Title "K-P" SHIPALTs concept was instituted to improve the Forces Afloat's capability to accomplish urgent improvements in operating Submarines during the period between regular overhauls.

Title "K-P" is assigned to alterations that change the military or technical characteristics of a submarine and can involve installations of NDE-NM identified Centrally Provided Material (CPM) and Headquarters CPM (HCPM), but are within Forces Afloat or AIT capability for installation. Development of Title "K-P" alteration packages may only be authorized by the SPM. The accomplishment of a Package SHIPALT may be authorized by the SPM or the appropriate TYCOM. Except for HCPM and CPM, all funds to support preparation of packages, including technical assistance for installation, shall be FMP funded. All required material and documentation are assembled by an Industrial Activity and provided to Forces Afloat or AIT for installation. Refer to Section 12 of this manual for details of the Submarine TYCOMs package alterations program.

In order to meet standardized requirements and facilitate package preparation by various activities for installation by Forces Afloat, each package shall be prepared to contain the software and hardware in accordance with reference S9(c).

9-6.3 Justification/Cost Form (JCF)

The JCF shall normally be prepared by the cognizant engineer in the SPAWAR Engineering Directorate (ED) or the NAVSEA ED or his designated agent, in accordance with reference S9(e). The JCF will normally be forwarded to Submarine Maintenance, Engineering, Planning and Procurement (SUBMEPP) or the PY/Design Agent for comment. The ED will analyze Forces Afloat capability to accomplish the SHIPALT and recommend whether to include the SHIPALT in the Package Program.

9-6.4 SHIPALT Package Process

The process that leads to the accomplishment of a Package SHIPALT is complex and requires the closely coordinated efforts of many separate functional organizations at both Headquarters and field activity levels. The essential steps in the process, many of which must be accomplished simultaneously, are often highly interdependent and repetitive in nature. These steps include:

- Evaluate proposed and existing SHIPALTs that have been determined to be technically feasible for the practicability of accomplishment as a Package SHIPALT.
- Determine if the priority or urgency of the proposed SHIPALT is such to warrant inclusion in the SHIPALT Package Program.
- Develop the detailed installation drawings.
- Budget for and obtain material required for the SHIPALT.

- Schedule the SHIPALT for accomplishment within the constraining considerations of ship's force or industrial assistance availability, and funds limitations.
- Authorize the alteration for accomplishment for a given hull as a SHIPALT Package.
- Accomplish the installation of the approved package SHIPALT.

9-6.5 Title "K-P" Alteration Identification

When the proposed SHIPALT is identified to the Package Program, a Ship Alteration Record (SAR) will be prepared in accordance with reference S9(u), designating it as a Title "K-P" SHIPALT. The following elements of the package will be identified as may be required by its contents:

- SHIPALT Installation Software
- Marked-up SSRs
- Equipment Level TM Changes
- Pertinent Reference Documents
- Major Installation Material
- Initial Complement of OBRPs
- Procedures for Engineering Assistance

9-6.6 Cognizant Command and Activity Responsibilities for Title “K-P” SHIPALTs

To provide for the management of the Package SHIPALT Program, the responsibility for the functions required are assigned as indicated below.

9-6.6.1 Ship Program Manager (SPM)

NAVSEA PMS392 is the PM for the Submarine SHIPALT Program and is responsible for the following FMP-related functions:

- Develop and approving PTIs and Technical Improvement Plans (TIPs).
- Ensure Cost & Feasibility (C&F) Studies are conducted when required (NAVSEA 05 performs C&F Studies).
- Act as NAVSEA Representative at Fleet Modernization (FLTMOD) Conferences.
- Manage the development of SHIPALT documentation, such as SARs, SHIPALT Installation Drawings (SIDs), and other SHIPALT documentation.
- Develop and providing alteration development status and material requirement information.
- Issue Advance Planning and SHIPALT Authorization letters to the NSA/IA and concur with the installation planning and accomplishment of SHIPALTs by any other method, such as AIT.
- Manage the day-to-day coordination of individual ship availability through dialogue with NSAs/IAs, TYCOMs, CNO, etc., which includes:
  - Establish and negotiate cost estimates and fund requirements for shipyard work.
  - Receive, evaluate, and negotiate estimates and fixed-price offers.
  - Task the PYs and SUBMEPP, as necessary, to accomplish assigned responsibilities assuring configuration of their assigned ships.

9-6.6.2 Title “K-P” SHIPALT Package Program Manager

Within NAVSEA PMS392, PMS392A41 acts as the Package PM and will:

- Provide management functions to ensure implementation of this package program.

- Analyze alterations for possible inclusion in the SHIPALT Package Program. In the analysis, consider technical content, packaging feasibility, cost, and schedules.
- Provide direction in the planning and approval stages of SHIPALTs for the Package Program and review SHIPALTs recommended for inclusion in the Package Program.
- Provide funds to the package activities for the procurement of SHIPALT packages within the limitations of the funds authorized in the FMP.
- Arrange for the identification of subsequent fiscal year Package Program SHIPALTs in the FMP each year.
- Task or contract government or private industrial activities for the fabrication and packaging of SHIPALT packages. Assure that ordering documents stipulate that package preparation will be in accordance with this manual.
- Assure SIDs are prepared in accordance with reference S9(v).
- Provide necessary direction and coordination of the package activities.
- Coordinate with NAVSEA 05, SPAWAR, and cognizant material managers regarding the availability of CPM under their cognizance for timely delivery and incorporation in SHIPALT packages.
- Coordinate information with NAVSEA 013 to ensure funding availability.
- Monitor SHIPALT package preparation and installation by conducting annual audits of selected packaging and user activities.
- Arrange with the TRIDENT Refit Facility, Kings Bay, Georgia and other Naval Supply activities, as required, for the stocking of SHIPALT packages.
- Direct shipment of completed packages to points other than stock point as required by the TYCOMs. SHIPALT packages will not normally be shipped to the package stock point or to Forces Afloat until the packages are completed. However, in urgent cases, TYCOMs may request from the PM delivery of a partial SHIPALT package.
- Resolve problems due to damage or loss during shipment from the package activity to the designated activity.
- Identify and maintain all data required in NDE-NM for the SHIPALT Package Program.

9-6.6.3 Title “K-P” SHIPALT NAVSEA Engineering Directorates (EDs)

The NAVSEA EDs assist in resolving engineering problems during development of the SHIPALT package and are responsible for technical approval of all JCFs and SARs.

9-6.6.4 Planning Yard (PY)

The PY will normally be responsible for:

- Preparation of SARs and associated cost estimates.
- Preparation of requisite SIDs in accordance with reference S9(v).
- If SIDs are prepared by an activity other than the PY, the PY will be responsible for the technical review and approval.

9-6.6.5 Cognizant Material Managers

Cognizant material managers shall:

- Procure NDE-NM HCPM and CPM as required for SHIPALT package assembly as programmed in the FMP.
- Provide information on the procurement and delivery status of such material as requested by

NAVSEA PMS392.

9-6.6.6 Title “KP” SHIPALT Packaging Activity

A Naval Shipyard, when tasked by the PM, or a commercial activity, when contracted, will:

- Prepare SHIPALT packages suitable for specified ships in accordance with reference S9(c) and this manual. SIDs will be in accordance with reference S9(v).
- Submit to NAVSEA PMS392 and the PY information on any necessary changes in SHIPALT design.
- Submit PTD to the cognizant Inventory Control Point (ICP) (NAVICP-M or others).
- Submit proposed SIDs and other NAVSEA-approved Title "K-P" SHIPALT drawings to the PY together with a complete list of the drawings being provided. NAVSEA PMS392 shall be provided a copy of the listing of drawings forwarded to the PY.
- Submit quarterly status reports to NAVSEA 013, NAVSEA PMS392, TYCOMs and Squadrons reporting the status of package preparation and the expenditure of funds obligated.
- Furnish TYCOMs, Squadron Commanders, and other interested commands a quarterly report of packages under preparation, completed, and distributed.
- Submit as-installed drawings to the PY for record keeping purposes.

9-6.6.7 Title “K-P” SHIPALT Stock Point

The Stock Point for SHIPALT packages will:

- Provide secure storage of SHIPALT packages received from the Package Activity and assign each a local control number unique to the SHIPALT Package Program.
- Inventory the contents of any package received in a damaged condition or which appears to have been previously opened and report findings to the PM and Package Activity.
- Issue SHIPALT packages to Forces Afloat as authorized by the TYCOM.
- Provide a narrative report of inventory monthly to NAVSEA 92L, NAVSEA PMS392A41, NAVSEA 013, TYCOMs, and all Submarine Squadrons.

9-6.6.8 TYCOMs Title “K-P” SHIPALTs

Commander, Submarine Force, U.S. Pacific Fleet (COMSUBPAC) and Commander, Submarine Force, U.S. Atlantic Fleet (COMSUBLANT) shall:

- Review recommendations concerning alterations that are candidates for the Package Program and advise NAVSEA PMS392A41 of Forces Afloat capability to accomplish these SHIPALTs.
- Provide the PM with a current priority of required package SHIPALTs.
- Update NDE-NM with all SHIPALT completions.
- Assume cognizance of SHIPALT packages designated for assigned Submarines once they are delivered to a Fleet activity stock point and maintain strict accounting and control of packages by Forces Afloat.
- Establish procedures and promulgate instructions for SHIPALT Package installation by Forces Afloat.

9-6.6.9 Forces Afloat Title “K-P” SHIPALTS

Forces Afloat responsibilities include:

- Accomplish the SHIPALT in accordance with instructions, drawings, and technical directives

provided with the SHIPALT packages as directed by the TYCOM.

- Ensure proper storage, accountability, and control of SHIPALT packages in accordance with TYCOM instructions.
- Report completion of SHIPALT packages to the TYCOM.

9-6.7 Financial Execution for Title "K-P" SHIPALTs

NAVSEA 013, as the FMP Financial Manager, prepares the FMP budget, maintains FMP financial records, serves as the primary point of contact with CNO N43 for FMP financial and reprogramming matters, and prepares FMP funding documents. Therefore, the PM will coordinate all budgeting and funding matters related to the Submarine SHIPALT Package Program with NAVSEA 013. Line item manager responsibilities regarding budgeting and financial management are detailed in Section 6 of this manual.

SUBSECTION 9-7 U.S. COAST GUARD SHIP ALTERATION PROGRAM

9-7.1 Scope of Subsection 9-7

This subsection describes the FMP procedures associated with the Navy's support of the USCG SHIPALT Program. FMP procedures delineated in other sections of this manual will be followed except as modified by this subsection.

9-7.2 Background for Subsection 9-7

During times of national emergency, upon declaration of war or when the President directs, the USCG will operate as part of the Navy. It is Navy policy to ensure that the USCG is prepared to carry out naval warfare tasks and to provide the USCG with Navy-owned equipment and appropriate support to perform Navy mission requirements.

The Support Ships/Boat/Craft PM (PMS325) is designated as the USCG PM at NAVSEA and is responsible for managing all FMP efforts associated with the installation of Navy-owned equipment aboard USCG Cutters. Reference S9(w) provides the policy for Navy support of the USCG and contains the Basic Agreement between the Navy and the USCG for Interservice Logistics Support. Under the terms of this agreement, the Navy is responsible for providing Navy-owned equipment to the USCG with associated design, engineering, technical and ILS. This equipment is installed aboard USCG Cutters as Title "K" SHIPALTs.

9-7.3 U.S. Coast Guard SHIPALT Types

All USCG SHIPALTs that install Navy-owned equipment fall into one of the following categories:

- Initial Issue/New Capability SHIPALTs - These SHIPALTs provide a new mission capability to a particular Cutter class and provide the initial issue of associated Navy-owned equipment aboard that Cutter class.
- Replacement/Upgrade SHIPALTs - These SHIPALTs replace existing Navy-owned equipment that improves or upgrades current mission capabilities.

9-7.4 U.S. Coast Guard SHIPALT Funding

The cost of all Navy-owned equipment, including all HCPM and CPM, the initial issue of required ILS products, ORDALTs, FCs, I&C spares, and all other support materials and information required for the installation of USCG SHIPALTs, will be borne in full by the Navy. The Navy will also fund the SHIPALT development process up to and including SAR preparation for USCG SHIPALTs. After SAR preparation, funding responsibilities differ depending on the type of SHIPALT. These differences are delineated as follows:

- Initial issue/New Capability SHIPALTs - All installation and incidental material costs, and the cost of associated design and engineering work, including SID development, will normally be borne by the USCG.
- Replacement/Upgrade SHIPALTs - All installation and incidental material costs, and the cost of any necessary design and engineering work required to ensure proper form, fit and function, and to ensure proper interface with existing Navy or USCG equipment, including SID preparation, will be borne by the Navy.

Installation costs include all expenses associated with the installation, testing and checkout of

Navy-owned equipment/ systems including pointing/firing cut-out cam installations and CSs alignment support. Navy Installation, Validation and Certification Team visits are also chargeable to installation funds.

9-7.5 U.S. Coast Guard SHIPALT Review/Approval

The USCG will review and approve all documentation that requires NAVSEA or CNO approval under standard FMP procedures.

9-7.6 U.S. Coast Guard SHIPALT Exclusions

Certain FMP related functions would be accomplished internally by the USCG. Others are not applicable to the USCG Program, or are applicable only under certain conditions. The following areas fall into this category and FMP procedures do not necessarily apply. Additional information is provided as follows:

- Advance Planning, Authorization, Funding and Tasking Letter preparation may be accomplished by either the USCG or NAVSEA PMS325, depending on funding and contractual arrangements.
- SSR maintenance is an internal USCG function. SSR update may be accomplished by the USCG or the Navy PY, as funded and tasked by the USCG.
- Miscellaneous Documentation Support (MDS) procedures do not apply to the USCG.
- MACHALTs do not apply to the USCG.
- Title "D" and "F" SHIPALTs are not applicable to the USCG.
- TYCOM functions are not applicable to the USCG.
- CM for Cutters is an internal USCG function. However, CNO and NAVSEA PMS325 participate as members of the Permanent Joint Working Group on Cutter CS Equipment, which functions under the auspices of the Navy-Coast Guard (NAVGARD) Board.
- Weight Control is an internal USCG function.

9-7.7 U.S. Coast Guard SHIPALT Responsibilities

Responsibilities for the USCG SHIPALT Program are as follows.

9-7.7.1 CNO

- Jointly, with the Commandant, Coast Guard identify Navy missions and warfare tasks to be accomplished by the USCG.
- Establish SHIPALT priorities for Navy-owned equipment installations.
- Perform all Planning, Programming and Budgeting System (PPBS) functions required for the installation of Navy-owned equipment aboard USCG Cutters.
- In conjunction with NAVSEA PMS325 and through the NAVSEA PMS325 CCB, approve PMIs and Proposed Survivability Improvements (PSIs).
- Provide funding to the appropriate Systems Commands for the procurement of SHIPALT material, ORDALT material, FCs, Coordinated Shipboard Allowance List (COSAL) Outfitting Material and associated support material.
- ProvidesDesign Services Allocation (DSA) and installation funding to the USCG PM (NAVSEA PMS325) for the development and installation of USCG SHIPALTs.
- Program for USCG SHIPALTs through the CNO Gaming System to NDE-NM.
- Co-chair and participate as a member of the Permanent Joint Working Group on Cutter

Combat System Equipment.

9-7.7.2 U.S. Coast Guard

- Jointly with CNO, identify Navy missions and warfare tasks to be accomplished by the USCG.
- Review/generate PMIs and PSIs.
- Participate in the SHIPALT prioritization process.
- Establish and promulgate overhaul, industrial availability and SHIPALT installation schedules.
- Designatesengineering design agents and funds SID preparation required for Initial Issue/New Capability USCG SHIPALTs. Fund the installation of these SHIPALTs.
- Review and comment on SHIPALT documentation and participates in the NAVSEA PMS325 CCB for approval of JCFs and SARs.
- Document and issue USCG SHIPALTs upon receipt of approved SARs.
- Resolve Liaison Action Records (LARs) generated during the USCG SHIPALT development and installation process in concert with NAVSEA PMS325.
- Monitor the delivery of Navy Government Furnished Material (GFM) and provides receipt discrepancy reports to NAVSEA PMS325 as required.
- Monitor SHIPALT installation progress in conjunction with NAVSEA PMS325.
- Fund and task the Navy PY to update applicable SSRs if required.
- Issue Advance Planning, Authorization, Funding and Tasking Letters for USCG FMP work as required in conjunction with NAVSEA PMS325. This requirement is determined by funding and contractual arrangements.
- Maintain Cutter CM and manages the USCG CM process.
- Managesall requirements related to weight and vertical moment compensation. Task all weight and moment control actions.
- Co-chair and participate as a member of the Permanent Joint Working Group on Cutter Combat System Equipment.

9-7.7.3 Systems Commands (NAVSEA, Naval Air Systems Command (NAVAIR), SPAWAR)

- Budget for and provide the SHIPALT material, ORDALTs and FCs required to support the USCG.
- Budget for and fund ORDALT and FC installations.
- Fund and task Navy field activities as required in support of the USCG SHIPALT Program.
- Provide all ILS products required to support Navy equipment installations including: APLs/AELs, technical data, TMs and PMS.
- Provide all required ILS products as defined in Section 8 of this manual and any other documentation required for the installation, testing and checkout of Navy-owned equipment.
- Provide all support material required for USCG SHIPALTs including: I&Cs spares, COSAL Outfitting Material and associated Special Purpose Support and Test Equipment.

9-7.7.4 U.S. Coast Guard Program Manager (NAVSEA PMS325)

- Act as the central point of contact at NAVSEA for Navy-owned equipment installations aboard USCG Cutters and coordinate the USCG FMP process.

- In concert with CNO and USCG, review and approve all JCFs and SARs through the NAVSEA PMS325 CCB process.
- Budget for USCG SHIPALT DSA and installation funding requirements.
- Issue Advance Planning, Authorization, Funding and Tasking Letters for USCG FMP work to the Navy PY and other Navy activities as required. This requirement is determined by funding and contractual arrangements.
- Actsas the primary interface between the USCG and the PY, and provide management support for all PY functions.
- Fund the preparation of SARs required for USCG SHIPALTs.
- Fund SID preparation for Replacement/Upgrade USCG SHIPALTs and the installation of these SHIPALTs.
- Resolve and approve all applicable LARs concurrently with the USCG.
- Monitor GFM deliveries and resolves material discrepancy reports and any other associated ILS related problems.
- Enter USCG SHIPALT information into NDE-NM in accordance with standard FMP procedures and resolve NDE-NM Discrepancy Reports. Ensure that the database is current and accurate.
- Monitor SHIPALT installation progress in conjunction with the USCG.
- Participate as a member of the Permanent Joint Working Group on Cutter Combat System Equipment.

9-7.7.5 Navy Planning Yard (PY)

- Acts as the Navy engineering design agent for USCG SHIPALTs.
- Prepare SARs for USCG SHIPALTs as funded and tasked by NAVSEA PMS325.
- Develop SIDs for Initial Issue/New Capability SHIPALTs and conducts related ship checks as funded and tasked by the USCG.
- Develop SIDs for Replacement/Upgrade SHIPALTs and conduct related ship checks as funded and tasked by NAVSEA PMS325.
- Update Cutter SSRs as funded and tasked by the USCG.
- Initiate LARs as required during the USCG SHIPALT development process.
- Perform other PY functions related to the USCG program as funded and tasked by NAVSEA PMS325.

SUBSECTION 9-8 MILITARY SEALIFT COMMAND SHIP ALTERATION PROGRAM

9-8.1 Scope of Subsection 9-8

This subsection describes the responsibilities of the NAVSEA and the MSC for the modernization of MSC ships (T-ships). FMP procedures delineated in other sections of this manual will be followed except as modified by this subsection

9-8.2 Background for Subsection 9-8

Traditionally, the SPM has had the responsibility for ship life cycle and CM for all Navy ships not specifically assigned to MSC. As ship class CM responsibility transfers from one command to another, it is necessary that a clear audit trail be confirmed especially since some classes are being transferred ship by ship rather than as an entire class. As these transfers occur, it is important that standardization of interoperability features between MSC and other Navy ships/forces be maintained. The MSC ship classes that require the most interoperability interfaces are the Naval Fleet Auxiliary Force (NFAF) for which NAVSEA and MSC both have life cycle responsibilities.

The Support Ships/Boats/Craft PM (NAVSEA PMS325) is responsible for CM for the NFAF ships. Reference S9(x) provides the policy for Navy support of MSC ships and contains the Basic Agreement between the Navy and the MSC for interagency support.

9-8.3 Definitions for Subsection 9-8

Interoperability alterations are those modernizations to ship characteristics affecting the ability of MSC ships to operate effectively with other Navy ships or units as well as those alterations otherwise agreed to be common to both MSC and other Navy ship classes for reasons of standardization. These will generally include communications and Underway Replenishment (UNREP) alterations as well as those specifically directed by the CNO (see Table S9-1).

9-8.4 Coverage of Subsection 9-8

The seven ship classes specifically covered by this section are:

- TAE-26 (single ship only)
- TAF-58 Class
- TAFS-8 Class
- TAFS-1 (MSC conversion ships only)
- TAO 143 and 187 Classes
- TATF-166 Class

9-8.5 Exception to Ships in Subsection 9-8

Three ship classes; TAE-26, TAFS-1, and TAO-187 are exception cases. For TAE-26 and TAFS-1 Classes, NAVSEA reserves a higher level of CM than for other classes. CM of the TAO-187 Class will be shared between MSC and NAVSEA due to DSA funding/tasking concurrent with AO-177 Class ship design efforts.

9-8.6 Responsibilities for MSC Modernizations

Responsibilities for the modernization of MSC ships as delineated in Subsection 9-8.4 are as

follows.

9-8.6.1 Modernization Related Ship Maintenance

MSC will retain all responsibility for planning, funding, and execution including SHIPALTs and TRANSALTs considered to be maintenance rather than modernization. This would include MSC equivalents of Title "D" and "F" SHIPALTs and Alterations Equivalent to Repair (AERs).

9-8.6.2 MSC Non-Interoperability Modernization

MSC will be responsible for planning, designing, installing and funding all non-interoperability modernization alterations.

9-8.6.3 Interoperability Modernization (Non-AIT)

9-8.6.3.1 NAVSEA PMS325

- During the SHIPALT development and review process, provide copies of draft JCFs to MSC for applicability review and analysis.
- Develop SHIPALT products through the SAR for the TAE-26, TAFS-1, and TAO-187 Classes.
- Jointly, with MSC, approve all interoperability SARs for the ship classes listed in Subsection 9-8.4.
- Approve the technical content only for MSC developed SARs.
- On a case basis and upon request by MSC and agreement by CNO N76, fund and accomplish selected SIDs.

9-8.6.3.2 MSC

- Develop SHIPALT products through the SAR for all other NFAF classes not specifically listed in Subsection 9-8.6.3.1
- Jointly, with NAVSEA PMS325, approve all interoperability SARs for the ship classes listed in Subsection 9-8.4.
- Develop SIDs from both MSC and NAVSEA PMS325 provided SARs.
- Manage and fund the installations of all interoperability modernizations for the ship classes listed in Subsection 9-8.4.

9-8.6.4 Communication Alterations/Upgrades (AIT Installations)

9-8.6.4.1 NAVSEA PMS325

Develop all SARs for communication AIT modernization for the TAE-26, TAFS-1, and TAO-187 classes and provide to MSC for approval. Upon final approval, provide copies to MSC.

9-8.6.4.2 MSC

- Develop SARs for communication AIT modernization for all other NFAF ship classes not specifically listed in Subsection 9-8.6.4.1.
- Develop SIDs for all ship classes listed in Subsection 9-8.4.
- Coordinate installation management with the Separate Funding Line Manager.

9-8.6.5 Configuration Management
MSC will be responsible for CM for all ship classes listed in Subsection 9-8.4. This responsibility will include all NDE-NM updating and management of modernization material provisioning and ILS.

9-8.6.6 Planning Yards (PYs)

9-8.6.6.1 NAVSEA PMS325
PMS325 will task DSA efforts to MSC in those interoperability areas for which NAVSEA is responsible. (see Table 9-1)

9-8.6.6.2 MSC
MSC is the PY for class CM for all ship classes listed in subsection 9-8.4 and for the development of all MSC-responsible DSA products and services with the exception of TAE-26, TAFS-1, and TAO-187 Classes.

9-8.6 NAVSEA PMS325/MSC Coordination
Upon review and approval of the JCF, responsibility for initiating SARs for interoperability alterations will be split between NAVSEA PMS325 and MSC. In all cases, however, both NAVSEA PMS325 and MSC must approve the technical content of the final product.

9-8.6.7.1 NAVSEA PMS325
For the TAE-26, TAFS-1, and TAO-187 Classes, NAVSEA will:
- Initiate SARs for interoperability alterations and communication AIT alterations.
- Provide all necessary documentation to MSC to enable them to carry out their responsibilities as CM manager.
- Include MSC in all NAVSEA planning evolutions and coordinate MSC's participation in CNO sponsored FMP evolutions including FLTMOD and Alteration Verification Conferences (AVCs).
- Prepare and release the Advance Planning and SHIPALT Authorization Letters.

9-8.6.7.2 MSC
- Initiate SARs for interoperability and communication AIT alterations for all NFAF ship classes except TAE-26, TAFS-1, and TAO-187 Classes.
- Approve the technical content of SARs for all NFAF ship classes.
- Serve as CM manager for all NFAF ship classes.
- Attend FLTMOD and AVC conferences.
- Prepare and release the Advance Planning and SHIPALT Authorization Letters for all NFAF ship classes except TAE-26, TAFS-1, and TAO-187 Classes.
- Develop quarterly availability schedules and provide to CNO N43 for entry into NDE-NM.

9-8.7 Funding for MSC Modernization
All modernization funding for the NFAF ship classes listed in Subsection 9-8.4 will come from CNO N43 through the FMP funding processes detailed in Section 6 of this manual. CNO N76 will provide funding to NAVSEA 013 for those CNO programmed or required Title "K" SHIPALTs to be accomplished on MSC ships. This includes Title "K" SHIPALTs to be

accomplished during regular MSC Availabilities and by AITs.

9-8.7.1 Title "K" SHIPALTs Accomplished During Regular MSC Availabilities
Upon receipt of the SHIPALT Authorization Letter, MSC will provide a written request to NAVSEA for time-phased funds required to accomplish the Title "K" SHIPALT package.

9-8.7.2 Title "K" SHIPALTs Accomplished by AIT
After consultation with MSC regarding the type and number of MSC ships scheduled to receive the installation, NAVSEA will provide the required funds to the appropriate ISEA/LCM/Separate Funding Line (SFL) Manager.

9-8.7.3 MSC Desired Title "K" SHIPALTs
Title "K" SHIPALTs that MSC desires to install must be funded by MSC.

9-8.7.4 Program Objectives Memorandum (POM) and Budget Estimates

9-8.7.4.1 MSC
MSC will provide POM and budget estimates for all MSC-responsible FMP efforts (design and PY CM support (DSA), advance planning and installation costs) to CNO N76, via NAVSEA PMS325 for coordination, in accordance with normal FMP POM and budget submission procedures. MSC AIT funding estimates will be coordinated by MSC but provided to CNO N76 by the Separate Funding Line Manager.

9-8.7.4.2 NAVSEA PMS325
PMS325 will be responsible for providing POM and budget estimates for their MSC FMP DSA efforts and coordinating them with the MSC POM and budget submissions to CNO N76. In addition, NAVSEA PMS325 will include MSC in all regular FMP POM and budget planning and execution evolutions.

9-8.7.4.3 CNO
All execution funding provided by CNO N76 to NAVSEA 013 for MSC FMP efforts will be provided directly to MSC and NAVSEA PMS325 (or their designated PY) in response to their funding requests. MSC AIT funding will be provided to the requesting Separate Funding Line Manager as requested.

TABLE S9-1 MSC/FMP INTEROPERABILITY ALTERATION MATRIX

SHIP/ CLASS	COMMUNICATIONS	UNREP	SURFACE SHIP SURVIVABILITY (2)	FLIGHT DECK FIREFIGHTING (2)	AVIATIO FACILITI (2)
TAE	X	X	(1)	(1)	(1)
TAF-58 (3)	X	X			
TAFS-8CL	X	X	(1)	(1)	(1)
TAFS-1CL	X	X	(1)	(1)	(1)
TAO-143CL (4)	X	X			
TAO-187CL	X	X	(1)	(1)	(1)
TATF-166CL	X		(1)		

NOTE: (1) TO BE DETERMINED ON A CASE BASIS
(2) AS DIRECTED BY CNO
(3) WILL DECOMMISSION SOON - UNLIKELY TO MODERNIZE
(4) INACTIVATION COMPLETE IN FY92 - UNLIKELY TO MODERNIZE

SUBSECTION 9-9 SPAWAR FIELD CHANGE IMPLEMENTATION PROGRAM (FCIP)

9-9.1 Scope of Subsection 9-9

This subsection describes the SPAWAR FCIP. This program aids in enforcing the FMP policy and guidance for a systematic FC implementation to SPAWAR cognizant equipment/systems throughout the Fleet. The FCIP provides a central point of contact for all SPAWAR FCs and provides consolidated installation of all SPAWAR minor FCs. References S9(b) and S9(y) provide specific policies as well as detailed procedures relevant to the development and installation of FCs by the FCIP.

9-9.2 Background for Subsection 9-9

A FC is any modification made to electronic equipment or systems after establishment of a product baseline and after delivery to the Navy. A FC must meet all of the following conditions:

- Can be accomplished without changing interface external to the equipment or system.
- Is a modification made within the equipment or system boundary.
- Can be accomplished without the ship being in an industrial activity.

A minor FC must meet all of the above described conditions in addition to the following:

- Have no impact on Battle Force Interoperability (BFI).
- The estimated time for the FC installation, pre-test and post-test takes less than 60 hours and assistance form ship's force is minimal.
- Will be accomplished individually and not in conjunction with a SHIPALT or MACHALT.

The need for equipment modifications occurs for one of the following reasons:

- Defects in the original design.
- A need to change equipment operational capability.
- Correction of safety hazards.
- Replacement of obsolete components.

The need for a modification in configuration may originate from the Fleet, the cognizant ISEA, the equipment manufacturer, a Navy industrial activity/depot, or may be directed by higher authority.

9-9.2.1 SPAWAR Engineering Change Proposal (ECP) Development

Once the need for a configuration change is identified, the task of developing the formal ECP is assigned, usually to the ISEA or the equipment manufacturer.

ECPs are prepared in accordance with reference S9(y) with additional amplifying information as specified in its appendix. ECPs must contain sufficient data to justify the expenditure of resources prior to approval by the SPAWAR CCB.

9-9.2.2 SPAWAR ECP Review and Approval

ECPs are reviewed and approved by SPAWAR CCBs in accordance with reference S9(y). The CCB issues a CCBD that provides detailed actions required to develop and to implement the ECP. When a conjunctive SHIPALT is required, SPAWAR will generate the necessary JCF and

submit it to the SPM for approval.

9-9.3 SPAWAR Field Change Development and Implementation

FCs are the modifications resulting from approved ECPs. FCs are prepared in accordance with references S9(b) and S9(y). All authorized FCs for SPAWAR cognizant equipment are developed under the direction of the SPAWAR equipment acquisition and LCM. SPAWAR notifies the SPMs of all FCs to be installed. FC procurement is normally a two-phase process:

- Prototype Field Change
- Production Field Change

9-9.3.1 SPAWAR Prototype Field Change

A Prototype FC is developed to:

- Determine the military suitability of a proposed modification.
- Determine the adequacy of the proposed modification.

A Prototype FC contains all the parts, materials, and instructions required to accomplish and to evaluate the change. The Prototype FC kit is installed by personnel of the same technical level as the personnel required to install the Production FC.

9-9.3.2 SPAWAR Production Field Change

Once the Prototype FC has been successfully installed, evaluated and tested, manufacturing of Production FCs can begin. Production FCs are prepared in accordance with references S9(b) and S9(y) and are designated by types as follows:

- Type I – A FC that requires parts, all of which are included in a kit consisting of publications, parts, materials, and special tools required to accomplish the change to one equipment and to revise existing equipment nameplates, publications, and charts as required.
- Type II – A FC that requires parts, none of which are included with the FC. The Type II FC may be either a kit consisting of a publications package or articles for a publication providing instructions for accomplishing the FC and correcting related publications.
- Type III – A FC that requires parts, some of which are included in a kit. The FC kit consists of a publications package and some of the parts, materials, and special tools required to accomplish the FC to one equipment and to revise existing nameplates, publications, and charts as required.
- Type IV – A FC that does not require parts or the use of special tools. This FC may be either a kit consisting of a publications package or articles for a publication providing instructions for accomplishing the FC and correcting related publications.

Additionally, Production FCs require a class designation signifying the accomplishment responsibility. The following class designations apply to Production FCs:

- Class A – A FC approved for accomplishment by Forces Afloat or station personnel; no installation funding is required.
- Class B – A FC that requires Fleet Installation funding.
- Class C – A FC that normally requires industrial assistance for installation. The appropriate Systems Command funds it.

It is SPAWAR policy that all approved FCs be designated Class A or C, whichever is most

appropriate.

9-9.4 SPAWAR Logistics Support

It is SPAWAR policy that no modifications be incorporated in equipment in the fleet unless all ILS products are provided concurrently. For further ILS requirements and certification information see Section 8 of this manual.

The LCM for electronics CIs is responsible for procuring or initiating the development of all required ILS products for FCs. All required ILS products must be available in final form at the time the FC is installed which is indicated by a formal alteration release letter, or ILS Certification Form by the program office certifying that all logistics products are in place.

The impact of an alteration on ILS shall be identified in the ECP. Changes to TMs and PMS shall be developed concurrently with the preparation of the FCB and the FC kit. At the end of the installation, all required OBRPs will be provided or the FC installer will advise the ship to requisition the allowance changes identified in the FC Instruction. Requisitions for initial outfitting OBRPs will be sent to the initial outfitting TOB holder, FISC Puget Sound. If an APL has not yet been developed for the system, a PAL will be developed. ISS shall only be used on unstable design equipment for which provisioning cannot be accomplished. The NSA shall verify the completeness and adequacy of an installation and the support provided in accordance with the requirements of Section 8 of this manual.

9-9.5 SPAWAR Field Change Installation

Class C FCs can be accomplished by supporting AITs or FCIP installation teams. It is recommended to maximize the use of FCIP for installing SPAWAR FCs, with routine accomplished priority, for cost effectiveness.

FCIP installation teams, located in San Diego and Norfolk, provide consolidated installations for minor FCs to SPAWAR cognizant equipment and systems. Visits are made periodically to install any applicable new and outstanding FCs. The frequency of visits will be determined by the availability of funds, ships' operating schedules, needs determined by the Fleet and shore activity Commanders, and the availability of FC related materials.

Prior to the installation of a FC, the equipment is pre-tested to ensure that it is operating within the prescribed parameters. After the installation of the FC, the equipment is again tested to ensure that the equipment remains operational and that the change has been correctly installed. These tests are prescribed to minimize equipment failures.

For FCs installed outside a depot level availability, the NSA will verify the completeness and adequacy of an installation and the support provided in accordance with Section 8 of this manual. These FC installations will be scheduled by entering the scheduling data into SPAWAR Installation Database, NDE-NM and working through the TYCOM's Alteration Installation Scheduling Conference process.

For minor FCs to be accomplished during periodic visits by FCIP installation teams, the D-30 process in accordance to S9(c), the NAVSEA BFI CCB secretariat process and Advanced

Planning availability authorization process are not required.

9-9.6 SPAWAR Field Change Configuration Audit

Concurrent with FC installation, FCIP installation teams perform periodic audits for SPAWAR FC configuration current status and ILS review. Shipboard documentation is reviewed and updated as required to ensure adequate support for installed FCs. This includes the incorporation of temporary or permanent changes to technical publications, review and update of APLs, and validation and update of PMS cards.

FCIP maintains a database to record FC configuration status for all SPAWAR equipment and track all approved SPAWAR FCs.

9-9.7 Field Change Installation Reporting

FC installation completions shall be reported by the installing activity to the appropriate ISEA and assigned CDM in accordance with references S9(f) and S9(g) for entry into CDMD-OA. For those activities using a SNAP computer, FC completions shall be reported by entry into the configuration change screen display using one of the following methods:

- Keyboard entry into the SNAP computer.
- Unsequenced ASI tape entry into the SNAP computer.

The ISEAs shall also report FC installation completions by updating NDE-NM.

In addition to the above, all work performed by the FCIP installation teams is documented and reported in a FCIP Activity Report (FAR). The FAR is normally provided to the ship within 30 days of the FCIP team visit. The FAR also contains recommended actions to be taken by ship's force, as determined necessary by the FCIP team, but beyond the scope of the program. Recommended actions include such things as ordering additional copies of TMs, APLs, or PMS cards.

9-9.8 SPAWAR Field Change Information Management

The LCM, or designated ISEA, is responsible for CSA for equipment under their cognizance and for accurate and timely reporting of FC planning information. The purpose of this information is to facilitate the procurement, scheduling and reporting of FC installations. The LCM or designated ISEA reports the FC planning information to the NDE-NM and to the appropriate CDM for entry into CDMD-OA.

The following is a brief description of each system.

9-9.8.1 Navy Data Environment-Navy Modernization (NDE-NM) Information Reporting

NDE-NM is the system that supports the planning and information reporting objectives for FCs installed under the FMP. This system contains the FC planning details, such as, applicability, scheduling and installation information. The LCMs or ISEAs are responsible for timely submission of status and planning information to NDE-NM. Refer to Section 11 of this manual for detailed information on NDE-NM requirements.

9-9.8.2 Configuration Data Managers Database-Open Architecture (CDMD-OA)

Information Reporting

CDMD-OA is the Navy's designated system for management and control of ship configuration and logistics in accordance with reference S9(g). The types of FC information reported to CDMD-OA include scheduling information, planned equipment installations or removals, planned alteration installations and installation status reports. Action steps and milestones for CM are contained in Section 8 of this manual.

SUBSECTION 9-10 TEMPORARY ALTERATIONS (TEMPALTs)

9-10. 1 Scope

This subsection outlines the policy, process and responsibilities for development and approval of TEMPALTs proposed for accomplishment on operational Fleet ships.

9-10.2 Exemptions

This subsection does not apply to the following:

- Submarines - TEMPALTs proposed for accomplishment on submarines or submersibles are covered by reference S9(z).
- Availability Testing - TEMPALTs performed as part of dry-dock or dockside testing during overhauls and other availabilities.
- Test Gauges - Temporary installation of mechanical gauges that connect to fittings designed and installed for test equipment attachment. The use of test gauge fittings for other than test equipment attachment will be approved by the SPM before usage.
- Temporary Equipment Alterations in the form of ORDALTs, MACHALTs, FCs AND ECs.

9-10.3 Definition

A TEMPALT is any alteration that provides new or improves existing capabilities on a temporary basis (not to exceed one year or one operational deployment in duration) in support of Research Development, Test and Evaluation (RDT&E) or military exercise or mission requirements. Budgeting and funding for TEMPALT accomplishment is usually part of the applicable project or program for RDT&E alterations, or the cognizant FLTCINC, TYCOM or CNO Resource Sponsor for mission support alterations. Budgeting for TEMPALTs shall include sufficient funding to remove the alteration and restore the ship to its original configuration. TEMPALTs are not funded as part of the FMP.

9-10.4 TEMPALT Categories

The following are the general TEMPALT categories:

- At-sea testing and evaluation, i.e., including sea trials, fast cruise, SONAR certification, and weapon or missile system certification trials
- Research and development
- Operational Evaluation/Technical Evaluation (OPEVAL/TECHEVAL)
- Special Mission/Battle Group
- Military Exercise or Contingency Operations
- CS PMIs and PSIs

9-10.5 Policy

TEMPALTs shall be reviewed and technically approved by the cognizant SPM before being authorized for accomplishment by the cognizant TYCOM. Alterations that are intended to be installed for a period in excess of one year or one operational deployment shall be considered a permanent change to a ship’s configuration and shall be accomplished as a SHIPALT. After completion of testing requirements, mission or exercise support requirements or one year, whichever comes first, TEMPALTs must be removed and the ship restored to its previous configuration. The activity sponsoring the accomplishment of the TEMPALT shall be responsible for funding the removal of the TEMPALT and the restoration of the ship.

If the intent/functionality of a TEMPALT is accomplished by a follow-on SHIPALT, that TEMPALT will be cancelled and not authorized for further installations. TEMPALT installation drawings that are not developed by the PY shall be forwarded to the PY for review and approval.

TEMPALTs that may affect Battle Group Interoperability will be coordinated with the cognizant CINC /NAVSEA 53 prior to installation scheduling.

9-10.6 TEMPALT Process

TEMPALT planning, development and execution closely mirrors the process for permanent SHIPALTs. The sponsoring activity will submit a JCF to the cognizant SPM to obtain a TEMPALT number and concept approval. However, the JCF is not used to obtain funding. Funding associated with TEMPALTs will be borne by the sponsoring activity not the SPM.

TEMPALTs do not require the development of a formal document like the SAR, which is required for SHIPALTs. However, alteration design development for TEMPALTs is the same as for SHIPALTs. A Plan of Actions and Milestones (POA&M) will be developed by the sponsoring activity which outlines requirements for design shipcheck, design development, drawing approval, assembly fabrication, testing (e.g. land-based, pre-and-post installation, at-sea), alteration accomplishment and alteration approval. The POA&M should include all personnel associated with the TEMPALT during its entire installed timeframe, as well as the identification and mitigation of all topside impacts to the CS. The SPM, TYCOM and PY are required to review the POA&M and provide comments to the sponsoring activity. The SPM, TYCOM and PY will be provided copies of the final POA&M.

After the POA&M is issued, the sponsoring activity must coordinate detailed planning with the TYCOM and SPM to establish which ship is to receive the TEMPALT (if not previously identified in the tasking document) and to determine dates that the ship will be available for design shipcheck and alteration accomplishment.

TEMPALT installation drawings, similar to SIDs are also required. The sponsoring activity is responsible for developing detailed installation drawings and for providing them to the SPM with adequate time for the applicable PY to review. Minimal review time is 30 days.

While the SPM does not “certify” the adequacy of TEMPALT logistics products as it does for SHIPALTs, and the FMP ILS Certification Milestones do not apply, any and all ILS products that will be provided for the purposes of supporting the operation, testing and maintenance of the TEMPALT shall be documented on an ILS Certification Form. It is recommended that a completed ILS Certification Form be provided to the SPM in sufficient time, prior to installation, to allow the SPM ample time to review and resolve any potential supportability issues surrounding the installation and support of the TEMPALT (preferably 4 months prior to installation, but NLT 2 months prior to installation). Furthermore, TEMPALT Configuration Status Accounting (CSA) requirements shall be documented in the ship’s Current Ship Maintenance Project (CSMP) using the Departure From Specification (DFS) process as well as through the CDMD-OA process used for SHIPALTS.

Scheduling for TEMPALTs shall be performed in the same manner as SHIPALTs.

9-10.6.1 TEMPALT Installation and Removal Messages

The sponsoring activity will notify the cognizant SPM, CINC, and TYCOM by naval message when any TEMPALT installation is accomplished on any active ship and when any TEMPALT installation is relocated or removed. At a minimum, installation messages will contain the TEMPALT number and title, ship's name and hull number, date of installation, any preliminary ILS provided, proposed removal date, the sponsoring activity's point of contact and references to the SPM approval and TYCOM's authorization. In addition, the installation message will include a statement certifying that the installation was accomplished in accordance with the TEMPALT installation drawings; and any discrepancies were adjudicated in accordance with reference S9(aa), as applicable. If training is required, the installation message will also include names of ship's personnel trained to operate and maintain the TEMPALT equipment. Removal messages will contain the TEMPALT number and title, ship's name and hull number, date of removal, and a statement certifying that the ship was restored to original configuration or any outstanding related item preventing restoration.

9-10.7 Responsibilities

9-10.7.1 Sponsoring Activity

- Identify those TEMPALTs which support a special mission for the duration of a specific deployment and which are being considered for class and multi-ship approval.
- Provide project or program funding and coordination for all phases of TEMPALT development, including detailed design packages, installation, and restoration of the ship to its original configuration.
- Identify installation test and evaluation requirements of all TEMPALTs.
- Develop the TEMPALT JCF and submit to the SPM for approval.
- Develop TEMPALT installation drawings.
- For the purpose of adjudicating nonconformance, TEMPALT drawings are considered nondeviation drawings. In cases where the approved TEMPALT design must be modified to suit a particular installation, the required nonconformance to TEMPALT design will be adjudicated by the IA in accordance with DFS procedures of reference S9(aa) Volume V Part I Chapter 8.
- Develop the TEMPALT POA&M.
- Ensure that the design documentation for TEMPALTs has been approved by the SPM prior to the start of ship-work in accordance with the policy and procedures of this subsection.
- Ensure that authorization has been obtained from the applicable TYCOM prior to installation.
- Ensure all TEMPALTs impacting CS equipment are reviewed by the CSE as well as the Warfare Area Manager (WAM).
- Establish a MOA for all work to be performed and accomplish all work in accordance with reference S9(aa).
- Notify the SPM and applicable TYCOM(s) by naval message whenever a TEMPALT has been accomplished, relocated, or removed.
- Provide a copy of the approved technical data package to the ship each time the alteration is accomplished.

- Provide all ILS products, including Training, required for the operation and maintenance of the TEMPALT equipment during its installed time frame or use aboard ship.
- Provide the CDM CDMD-OA records for TEMPALT equipment after installation.

9-10.7.2 SPM

- Ensure that TEMPALTs are technically satisfactory (e.g., safe, weight and moment, stability, missile hazard, access to and operation of vital equipment, etc.).
- Obtain PY review and input on TEMPALTs. Ensure ship impacts (e.g. cabling, foundations, new/relocated equipment, power, etc.) are considered in TEMPALT installation drawings.

9-10.7.3 TYCOM

- Authorize accomplishment of only those TEMPALTs that have been approved for accomplishment by the SPM.
- Adjudicate non-conformance to approved TEMPALT design in accordance with DFS procedures or Reference S9(aa) Volume V Part I Chapter 8.
- Maintain administrative control and monitor installation and removal of TEMPALTs.
- Notify CNO when authorizing installation of TEMPALTs that may impact ship mission or operational capabilities.

9-10.8 Configuration Status Accounting (CSA)

CSA for TEMPALTs shall be documented in CDMD-OA as it is for SHIPALTs, AERs, and equipment alterations, as well as the ship's CSMP using the DFS process. Configuration development will normally be to the top-level configuration to provide for the general identification of the equipment installed by the TEMPALT. This allows the CDM to identify the equipment and establish a CI record in CDMD-OA for purposes of CSA once the installation has been validated as complete. This data will be provided by the sponsoring activity in accordance with the requirements of references S9(c) and S9(g) and Section 8 of this manual. CSA for TEMPALTs shall also be accomplished utilizing the DFS process as described in reference S9(aa) Volume V Part I Chapter 8. This process requires that the DFS be entered into the CSMP and the installing activity database until such time as the ship's original configuration is either restored or permanent approval of the TEMPALT is authorized.

Ship's Force shall provide the sponsoring activity a DFS number. The subject line of the DFS shall read: "DFS Request-New Technology Test Initiative." The sponsoring activity shall provide the following information in block 14 of the DFS.

- Description of TEMPALT. (Include anticipated benefit)
- Product and Manufacturer
- Sponsoring Agencies (i.e. Port Engineer, Depot Facility, SPM, SPAWAR, FTSCLANT, NSWC, ISEA, Contractors, etc.)
- Technical and other assists if required (Ship's Force, SIMA, RRC, etc.)
- Estimated Date of Installation
- Define Test initiative and compartment location (system, equipment, component, hull structure, etc)
- Describe long/short term ILS plans, if available (for parts support, other new maintenance requirements, PMS, and technical documentation)

- Provide estimated test completion date and sponsoring agency evaluation POA&M

Ship's Force shall forward the DFS to the applicable TYCOM for approval. The TYCOM shall provide a copy of the approved DFS to the requesting ship and TEMPALT sponsor.

SECTION 10 ADVANCE PLANNING AND SHIPALT AUTHORIZATION LETTER
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SUBSECTION 10-1 ADVANCE PLANNING LETTERS

10-1.1 Scope

This subsection of the Fleet Modernization Program (FMP) Management and Operations Manual addresses the issuance of Advance Planning (AP) Letters for the accomplishment of Title "K" and "K-P" Ship Alterations (SHIPALTs), Ordnance Alterations (ORDALTs), and Machinery Alterations (MACHALTs), including AIT installations, during a specific ship availability. Title "D" and "F" SHIPALTs and Alterations Equivalent to Repair (AERs) are authorized by the Type Commanders (TYCOMs) in accordance with Section 12 of this manual.

Authorization, as used herein, is an action by a properly designated authority to direct that a specified alteration be accomplished. The following guidance and procedures provide for the development and issuance of AP Letters for alterations installation.

10-1.2 Background

AP Letters and advance planning funds shall be provided by the cognizant Ship Program Manager (SPM) at Start of Availability (A)-18 to the Naval Supervising Activity (NSA)/Ship Availability Planning & Engineering Center (SHAPEC) Advance planning funds are provided to Naval Shipyards (NSYs), Naval Ship Repair Facilities, and Supervisors of Shipbuilding, Conversion, and Repair (SUPSHIPs). The NSA/ (SHAPEC) is advised of the planned alterations for installation to facilitate necessary shipchecks and other planning efforts. Material to be provided by the NSA (SHAPEC) will be reviewed, and procurement action will be initiated for that material identified as Long Lead Time Material (LLTM). FMP installation funds are provided for Advance Planning (AP) in accordance with Section 6 of this manual.

10-1.3 Preparation of Advance Planning Letters

In preparing an Advance Planing Letter, the SPM shall:

- List all Title "K" SHIPALTs, ORDALTs, MACHALTs including AIT Installations that have been programmed in the Navy Data Environment-Navy Modernization (NDE-NM) (formerly the Fleet Modernization Program Management Information System (FMPMIS), by Chief of Naval Operations (CNO) for installation on the specific ship scheduled for an availability. Proposed SHIPALTs without a signed Ship Alteration Record (SAR) should be designated as such and the Estimated Issue Date (EID) for the SAR should be included in the letter.
- Request cost estimates, to support AP actions for LLTM and to identify the portion of the installation funds that is for use during AP for ordering or fabricating newly-identified LLTM (stock numbered) listed or not listed in NDE-NM or undergoing National Stock Number (NSN) assignment (non-standard), from NSA/ SHAPEC or Planning SUPSHIP/Shipyard.
- Designate those SHIPALTs representing high management risk due to known problems in design guidance and equipment or LLTM availabilities; indicate responsible activities and actions required to support acceptable planning milestones.

10-1.4 Funding

The following statement shall be included in all AP Letters: "This letter does not authorize the use of funds or commencement of related tasks nor is it to include any effort that will potentially obligate funds. Only the valid funding document in support of this letter releases funds and

authorizes commencement of effort."

10-1.5 Material

The SPM shall identify in the AP Letter all material requirements contained in NDE-NM for each programmed alteration and include a NDE-NM 4720 Report, which lists all material requirements for each alteration by ship type. Instead of the NDE-NM 4720 Report, a material status assessment may be included in the AP Letter, or as an enclosure that addresses problem material items.

10-1.5.1 Material Listing Not Provided

If the SPM does not provide a listing of material requirements, the NSA/ SHAPEC can obtain a listing from the NDE-NM database. Items listed on the NDE-NM 4720 Report should be checked against the material requirements information contained in the SAR Alteration Material List (AML), which is updated during alteration development. In cases where material is statused, kitted and provided, the NSA/ SHAPEC does not need to review NDE-NM 4720 Report.

10-1.5.2 Modification of Material Requirements

If material requirements identified planning actions must be modified, the NSA/ SHAPEC will immediately notify the cognizant SPM and Planning Yard (PY) in writing. After validation of the requirement, the SPM must then update the material requirements in NDE-NM as appropriate. For Submarines submit requests for material modifications to the appropriate PY using the Liaison Action Record (LAR) process and provide an information copy to the SPM.

10-1.6 Changes to the Advance Planning Letter

Changes, cancellations, deletions, or additions to the AP Letter shall be approved in accordance with the following procedures.

10-1.6.1 Assessment

Changes to the AP Letter will be made only for alteration additions or deletions in the availability. The disruptive effect on orderly planning shall be carefully evaluated prior to requesting CNO to authorize changes to programmed SHIPALTs included in the AP Letter. The NSA/ SHAPEC assessment shall be obtained, including the disruptive impact that would result from the proposed change, prior to initiation of the change. Each change shall include a notification, together with a sequence number, stating that it is a change to the AP Letter; e.g., "This is a Change No. 1 to my Advance Planning Letter Ser xxx-xxxx of 1 October 200x."

10-1.6.2 Distribution

The distribution of these change letters to the original AP Letters shall be the same as the original AP Letter.

10-1.6.3 Change in Activity

If the NSA/ SHAPEC is changed after the AP Letter has been issued, the original letter will be cancelled, and a new AP Letter reflecting all changes required by the reassignment of the availability will be issued.

SUBSECTION 10-2 SHIPALT AUTHORIZATION LETTERS

10-2.1 Scope

This subsection addresses SHIPALT Authorization Letters which specify to the NSA/ SHAPEC the Title "K" and SHIPALTs, ORDALTs, and MACHALTs including AIT Installations which are to be accomplished during a specific ship availability. They are issued by the cognizant SPM at A-12 or as late as A-6 with agreement from the applicable NSA and contain a list of all authorized SHIPALTs, material status, development status of the alteration, funding information and pertinent instructions. When proofing of programmed alteration(s) by the PY is required, authorization is to be provided in these letters. The SPM shall forward separate SHIPALT Authorization Letters for each ship scheduled for an availability to the cognizant NSY or SUPSHIP at A-12 or as late as A-6 with agreement from the applicable.

10-2.2 SHIPALT Authorization Letter Purpose

- Authorize the installation of an alteration on a specific hull.
- Provide the authorization for those alterations specifically programmed for accomplishment in a particular availability in the FMP by the CNO. Alterations to be installed by an AIT are also listed and the AIT activity is identified.
- Provide the NAVSEA planning estimates for the alterations authorized; if applicable, the SPM includes total planning estimates of funds authorized for Title "K" SHIPALTs accomplished in the SHIPALT Authorization Letter. These estimates are not to exceed programmed FMP funds.
- Provide procurement/requisitioning instructions for the material required for alteration accomplishment utilizing the NDE-NM TP-05 and the NDE-NM 4720 Report that provide material information required for the planning activity to manage the material for the availability.
- Provide specific reporting instructions on estimated manday and dollar expenditure rates, material costs for SHIPALTs, and required program reports in accordance with FMP Financial Management procedures contained Section 6 of this manual.

10-2.3 Preparation of the SHIPALT Authorization Letter

In preparing the SHIPALT Authorization Letter, the following tasks are required by the SPM:

- **Task #1**. Extract and review the NDE-4720 Report applicable to the ship and alteration package to ensure that it reflects current material requirements from previous documents (i.e. Justification Cost/Form (JCF), SAR, SHIPALT Installation Drawings (SIDs), etc). The SPM should initially review NDE-NM material data at A-16 and update the report as needed. The NDE-NM 4720 Report will identify all known alteration material requirements meeting NDE-NM/FMPMIS entry criteria for each Title "K" SHIPALT programmed for a given ship. The NDE-NM 4720 Report should be compared with the information gained during AP.
- **Task #2.** Insert or update material requirements in NDE-NM as necessary. The SPM, in conjunction with the appropriate technical code, will approve or disapprove any substitutions offered by material managers. This action will be completed by A-12. The SPM must review the recommended changes and upon approval update the FMPMIS Bill of Material. The SPM must also determine if additional items will be required on other ships of the class scheduled to receive the alteration. This determination may require a review of applicable Ship Selected Records (SSRs) and SIDs to verify the need for the requirement on other ships.

Information obtained from this review will be entered into FMPMIS as appropriate in accordance with NDE-NM entry criteria.

- **Task #3.** Prepare the draft SHIPALT Authorization Letter. The SPM prepares the draft SHIPALT Authorization Letter No Later Than (NLT) A-13. Usually enclosed in the SHIPALT Authorization Letter is the NDE-NM 4720 or specific directions to retrieve it from NDE-NM or authorized websites.
- **Task #4.** Sign and release the SHIPALT Authorization Letter to applicable NSA/ SHAPEC ,PY, the ship and TYCOM. If centrally provided Title "K" SHIPALT material requirements are expected to be available at the NSA/ SHAPEC by the Start of Availability (SOA), the SHIPALT Authorization Letter will be signed by the SPM and released in time to arrive at the NSA/ SHAPEC and PY NLT A-12 or as late as A-6 with agreement from the applicable NSA. This letter will include a NDE-NM 4720 Report or a statement that this report is complete and the NSA/ SHAPEC is authorized to extract it from NDE-NM.

10-2.4 Changes to SHIPALT Authorization Letters

Changes, cancellations, deletions, or additions to the SHIPALT Authorization Letter shall be approved in accordance with the following procedures.

10-2.4.1 Approval

CNO Platform Sponsors must approve any additions or deletions to the scope of the program specified in the SHIPALT Authorization Letter. If a SHIPALT is deferred, cognizant material managers must be advised, in writing, and disposition instructions for received material must be provided to the NSA/ SHAPEC**.**

10-2.4.2 Funding

The following statement shall be included in each SHIPALT Authorization Letter:
"This letter does not authorize the use of funds or commencement of related tasks nor is it to include any effort that will potentially obligate funds. Only the valid funding documents in support of this letter release funds and authorizes commencement of effort."

10-2.4.3 Changes

Changes to SHIPALT Authorization Letters must be documented by an official serialized letter. Changes will be made for alteration additions or deletions, material changes, availability date changes that are over 30 days, availability type changes, and to cancel letters when an availability has changed fiscal years or activity. The disruptive effect on orderly shipyard planning shall be carefully evaluated prior to requesting CNO to authorize changes to programmed SHIPALTs included in the SHIPALT Authorization Letter. The NSA/ SHAPEC assessment shall be obtained, including the disruptive impact that would result from the proposed change, prior to initiation of the change.

Official changes may be required because of reports and information received such as, but not limited to the following:

- Completion information received from the ship and from industrial activities.
- Late availability or non-availability of ship plans, drawings, and/or material.
- Revisions in cost/funding information.
- Change in ship availability.

- Additions or deletions of SHIPALTs by CNO.
- Revision to material requirements caused by follow-on SID development.

Changes to the SHIPALT Authorization Letter will include material availability information. If there are no changes in material status the SHIPALT Authorization Letter changes will include a statement to that effect.

Each change will include a notification together with a sequence number, stating that it is a change to the SHIPALT Authorization Letter; e.g., "This is change No. 1 to my Authorization Letter Ser xxx-xxxx of 1 August 20xx".

All change documents will include appropriate modifications to the SPM planning estimate as shown in the basic SHIPALT Authorization Letter or a statement that no change is being made to the planning estimate.

A change in material requirements subsequent to issuance of the SHIPALT Authorization Letter may constitute a disruptive situation due to inherent procurement lead times. Accordingly, any such change will be conveyed both verbally and in writing to the cognizant material manager and NSA/ SHAPEC and the change will be entered into NDE-NM/FMPMIS.

10-2.4.4 Distribution

The distribution of these changes letters to the original SHIPALT Authorization Letter shall be the same as the original SHIPALT Authorization Letter. Changes with limited distribution may precede the formal change to the SHIPALT Authorization Letter.

10-2.4.5 Change in Activity

If the NSA/ SHAPEC is changed after the SHIPALT Authorization Letter has been issued, the original letter shall be cancelled, and a new letter reflecting all changes required by the reassignment of the availability shall be issued. If a contract has been awarded by one SUPSHIP (or NAVSEA) to a contractor within another SUPSHIP's district, the original letter will not be cancelled. The SUPSHIP awarding the contract remains the Procurement Contracting Officer (PCO) and shall turn over all information requirements to the new SUPSHIP for administration of the contract. In the case of a NAVSEA contract award, where NAVSEA is the PCO, the Planning Supervisor shall turn over all information to the Administrative Contracting Officer (ACO). Turnover procedures of the PCO to the ACO are delineated in NAVSEAINST 4710.9 Series.

SUBSECTION 10-3 MATERIAL AVAILABILITY AUTHORIZATION CRITERIA

10-3.1 Scope

This subsection addresses the material availability criteria for Title "K" SHIPALTs authorized for specific ship availabilities. The authorization of Title "K" SHIPALTs may be contingent upon receipt of Headquarters Centrally Provided Material (HCPM) or Centrally Provided Material (CPM) at the NSA/SHAPEC or the Installing Activity (IA) by SOA. For submarine Depot Modernization Periods (DMPs), the milestone is A-2. Some Title "K" SHIPALTs are of such significance as to warrant the risks involved in late material delivery. Such SHIPALTs will only be authorized subsequent to receipt of formal concurrence or nonoccurrence by the NSA/ SHAPEC and analysis or review by the cognizant SPM or CNO Platform Sponsor as to the risk of authorization. If the HCPM is late in delivering, the following applies.

10-3.2 Obtaining Concurrence/Non-Concurrence

- SPM will advise the NSA/ SHAPEC of the Best Estimated Delivery Dates (BEDDs) of the SHIPALT HCPM and request concurrence/non-concurrence for HCPM that will be delivered after the SOA or A-2 milestones.
- NSA/SHAPEC will evaluate the BEDDs and advise the SPM of concurrence/non-concurrence. In case of non-concurrence, the NSA/SHAPEC will provide a brief impact statement of problems anticipated and provide a Latest Acceptable Delivery Date (LADD).

10-3.2.1 Non-Concurrence

Authorization of SHIPALTs that the NSASHAPEC does not concur will normally be deferred unless:

- The SHIPALT is considered to warrant authorization over the objections of the NSA/SHAPEC. The SPM will prepare a written analysis and recommendation for consideration by NAVSEA 04, theLife Cycle Manager (LCM), and the TYCOM.
- The SHIPALT is a Proposed Military or Survivability Improvement (PMI/PSI) and the SPM considers the risk excessive, the SPM will obtain direction from CNO for consideration by NAVSEA 04, theLife Cycle Manager (LCM), and the TYCOM.

SECTION 11 FLEET MODERNIZATION PROGRAM MANAGEMENT INFORMATION SYSTEM (FMPMIS) AND NAVY DATA ENVIRONMENT-NAVY MODERNIZATION (NDE-NM) SYSTEM TABLE OF CONTENTS

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SUBSECTION 11-1 INTRODUCTION TO FMPMIS AND NDE-NM

11-1.1 Scope

This section of the Fleet Modernization Program (FMP) Management and Operations Manual addresses the Fleet Modernization Program Management Information System (FMPMIS) and the Navy Data Environment-Navy Modernization System (NDE-NM). FMPMIS was established under the direction of the Chief of Naval Operations (CNO) N43 in coordination with the Fleet Commanders in Chief (FLTCINCs) and was designated by reference S11(a) as the official Automated Information System (AIS) supporting the FMP. NDE-NM was designed as an enterprise data model to integrate and merge existing modernization, maintenance, and logistics legacy data structures into a single design. The objective of NDE-NM is to consolidate Fleet Modernization Business Processes and legacy Data Systems. The following applications are being merged into the NDE-NM common model: FMPMIS (Logistics Module), and Alteration Installation Planning System (AIPS). The following systems will replicate data and interface with NDE-NM to share alteration, scheduling, material, and financial data: NDE-SPAWAR Integrated Data Environment (NDE-SIDE), FMPMIS (Program and Execution Modules), Type Commander (TYCOM) Alteration Management System (TAMS), Life Cycle Requirement System-Fleet Modernization Program (LCRS-FMP), Configuration Data Managers Database-Open Architecture (CDMD-OA), and Afloat Master Planning System (AMPS).

The FMPMIS and NDE-NM databases contain data relative to all alterations, including ship overhaul schedules, material, Integrated Logistics Support (ILS) reqiirements and design support requirements, and related financial data. FMPMIS and NDE-NM is sponsored by CNO (N43) and managed by the Naval Sea Systems Command (NAVSEA) FMPMIS Program Office (NAVSEA 04M3).

11-1.2 References

S11(a) OPNAVINST 4720.2, Series, Subj: Fleet Modernization Program (FMP) Policy
S11(b) FMPMIS Program Office Standard Operating Procedures

11-1.3 Background

The purpose of the FMPMIS is to provide an automated, integrated information support system to enhance the decision-making capabilities of FMP managers. The primary objective of FMPMIS is to provide timely information to the FMP community that supports planning, programming, budgeting, management, and execution of the FMP. FMPMIS has, for over 15 years, been the official automated system providing this information for FMP managers throughout the Navy. Major users of FMPMIS are CNO, FLTCINCs and TYCOMs, Hardware Systems Commands (HSCs), Material Managers, Design Agents (Das), Planning Yards (PYs), Ship Program Managers (SPMs), Program Managers (PMs), ILS Managers, In-service Engineering Agents (ISEAs), Life Cycle Managers (LCMs) and Industrial Activities.

The purpose of NDE-NM is to provide a web enabled enterprise data model to integrate and merge existing modernization, maintenance, and logistics legacy data structures into a single design to enhance the decision-making capabilities of FMP managers. The primary objective of NDE-NM is to consolidate Fleet Modernization Business Processes and Data Systems into a single architecture to provide timely information to the FMP community that supports planning,

programming, budgeting, management, and execution of the FMP.

The NDE-NM environment consists of client and web applications, business objects, and an enterprise data model that support those applications.

11-1.4 Policy Linking FMP, FMPMIS, and NDE-NM

The SHIPALT development process of the FMP is closely linked to selected support capabilities of FMPMIS and NDE-NM. As a result, certain major FMP activities are keyed to FMPMIS and NDE-NM as a matter of policy. For example:

- Identification of a SHIPALT number in the Amalgamated Military and Technical Improvement Plan (AMT) constitutes authority to expend resources to develop the Ship Alteration Record (SAR).
- The programming of a SHIPALT in FMPMIS (Program Module) constitutes authority for material managers to initiate material procurement in support of that SHIPALT. It further allows the SPM to provide funds to the PY to prepare SHIPALT Installation Drawings (SIDs) for the Title “K” and “K-P” SHIPALTs.
- SHIPALTs are considered "programmed" in FMPMIS (Program Module) when they are scheduled for accomplishment on a specific hull during a designated availability.
- NDE-NM (formerly FMPMIS Logistics Module) is the official information base for FMP management.
- NDE-NM Logistics Application (formerly FMPMIS Logistics Module) is the single official source for FMP material management data.
- FMPMIS (Program Module) indicates which SHIPALTs are budgeted.
- FMPMIS (Execution Module) indicates which funding document funded the SHIPALT installation cost.

11-1.5 Responsibilities of Legacy FMPMIS Program Office

NAVSEA 04M is responsible for the operation and maintenance of the production FMPMIS Automated Data Processing (ADP) system and NDE-NM as documented in reference S11(b). Other responsibilities of the FMPMIS Program Office include:

- Functioning as Program Manager for legacy FMPMIS and NDE-NM.
- Manage design and control of automated interfaces between legacy FMPMIS, NDE-NM and other information systems.
- Acting as the NAVSEA point of contact for users requesting legacy FMPMIS and NDE-NM products/services.

SUBSECTION 11-2 SUBSYTEMS

11-2.1 Background

Legacy FMPMIS consists of three subsystem modules tied together into one federated system with the Logistics module being the key subsystem. Legacy FMPMIS has combined the three separate functions, Logistics, Program, and Execution into one Graphical User Interface (GUI) client/server system built on a single unified database. Substantial efficiencies and increased effectiveness have been realized through combining the three databases and upgrading the management tools to better meet the information requirements of the US Navy. Legacy FMPMIS Logistics Module has been integrated into the NDE-NM enterprise data architecture to improve the coordination and visibility of FMP planning data. These functions and responsibilities are described in further detail in subsections 11-2.2, 11-2.3 and 11-2.4. As a result of US Navy reorganizations and changes that may be adopted in the legacy FMPMIS redesign, some or all the subsystems may be subsequently renamed, or absorbed into the redesigned database. These changes will not affect the basic policies that legacy FMPMIS is the official, authoritative repository for FMP planning information and that access to FMP data shall be exercised using approved and secure access methods or intersystem interfaces.

11-2.2 NDE-NM (Logistics application) (formerly FMPMIS Logistics Module)

NDE-NM Logistics Application is a tool that tracks and maintains logistical data for modernizing ships in the Navy. The purpose of NDE-NM Logistics Application is to store all the engineering information, materials, equipment and management support required to perform modernizations to the right place at the right time. This includes alteration information, automated tracking of materials usage and requirements, alterations scheduling and completion status and detailed shipyard scheduling.

11-2.3 Legacy FMPMIS Program Module

The Program module of legacy FMPMIS is a tool that produces detailed financial compilation data required for FMP budget submissions; provides automated program/fiscal scenarios used to adjust program budgets to remain within controls by utilizing current planning information incorporated in NDE-NM Logistics Application. The Program module allows planners to explore various combinations for assigning allocated funds, comparing projects for greatest overall effectiveness, and conducting “what-if” projections to balance identified needs. The programming of a SHIPALT in FMPMIS (Program Module) constitutes authority for material managers to initiate material procurement in support of that SHIPALT. It further allows the SPM to provide funds to the PY to prepare SHIPALT Installation Drawings (SIDs) for the Title “K” and “K-P” SHIPALTs.

11-2.4 Legacy FMPMIS Execution Module

The Execution module of legacy FMPMIS provides an electronic workflow environment that processes approximately 5000 funding documents each year. The module supports financial planning, funding document preparation, cash management, budget change and tracking, and reporting. It promotes the accuracy of funding by validating funding documents against remaining budget, and promotes the timeliness of funding for availabilities through the systematic production of the funding documents.

The Execution module is comprised of six major subsystems, which correspond to primary FMP budget execution functions.

- The Document subsystem supports the processing of the funding documents, and allows users to create, approve, and transmit funding documents.
- The Plan subsystem allows users to enter the Obligation Plan for the Fiscal Year (FY).
- The Cash subsystem supports the FMP offices entry of the cash (apportionment) received, and tracks financial status by automatically debiting/crediting the Chief of Naval Operations (OPNAV) Program Sponsor/SPM account when documents are issued.
- The Control subsystem supports the entry of budget control data.
- The Program subsystem allows users to enter current estimates for availabilities, and view the Shipsheet and Separate Funding Line (SFL) Summaries.
- The reports subsystem allows users to report information in the Execution module.

11-2.5 NDE-NM Alteration Installation Planning System (NDE-NM AIPS)

NDE-NM AIPS is a tool that provides consolidated planning data to install alterations by Alteration Installation Teams (AITs) typically outside CNO availabilities. It contains ordinance alteration (ORDALT), machine alteration (MACHALT), field changes (FC), engineering change (EC), and engineering change proposal (ECP) data. This system is used to supports the TYCOM Quarterly Scheduling Conferences.

11-2.6 NDE SPAWAR Integrated Data Environment (NDE-SIDE)

NDE SPAWAR Integrated Data Environment (NDE-SIDE) is a tool that aligns and integrates SPAWAR and NAVSEA business processes, applications, and data. The goal is to enter the data once, store the data in a common environment, and use the data across applications. This promotes data convergence and assures data interoperability across processes and applications. It also allows the establishment of authoritative data sources and greater traceability of data for accuracy and quality, while providing for data deconfliction. NDE-SIDE provides this convergence through a shared data architecture that supports web-based applications and interfaces.

11-2.7 Type Commander (TYCOM) Alteration Management System (TAMS)

TAMS is an automated system operated by COMSUBLANT/COMSUBPAC that contains submarine specific maintenance and modernization information related to alteration completion status, authorization, scheduling, and designated accomplishing activity. It tracks all Alteration and Improvement (A&I) items, TRIDENT Alteration (TZ) Improvements, TEMPALTs/OPALTs and all SHIPALTs with the exception of Title K non-reactor plant SHIPALTs TAMS is the instrument by which the TYCOM authorizes the accomplishment and completion status for all submarines.

11-2.8 Life Cycle Requirement System-Fleet Modernization Program (LCRS-FMP)

The LCRS-FMP system is a tool used to track and maintain Aircraft Carrier alteration scheduling and status information including NNPI/NOFORN data. This program tracks alteration installation schedules, cost estimates, estimate histories, installation histories, guidance data, and funding data.

11-2.9 Afloat Master Planning System (AMPS)

AMPS is a web-based, Program Manager-centric record of combat systems (CS) and command

control, communications, computers, surveillance and reconnaissance intelligence (C4ISR) systems and software present in and planned for installation aboard afloat units and connected shore elements affecting a BF. It's primary design is to support the FLTCINC D-30 process specified in the joint CINCPACFLT/CINCLANTFLT Instruction 4720.3A. AMPS is the FLTCINCs tool for displaying and controlling, through electronic change control, the systems and software that deploy with a Battle Force. AMPS includes traditional Navy (NAVSEA, NAVAIR & SPAWAR) shipboard systems, embarked airwing and aircraft systems, embarked USMC systems, and systems from other DoD origins. All systems are associated with owning commands, and the people in those commands. All data entries are date-time stamped and credited to the particular authorized people that made those entries. AMPS does not include all systems or subsystems, but only those that influence a warfighting capability of the ships, Battle Force Interoperability (BFI), or are of special Fleet interest.

11-2.10 Configuration Data Managers Database-Open Architecture (CDMD-OA)

Configuration Data Managers Database–Open Architecture (CDMD-OA) is the authoritative database for establishing, and maintaining Ships' configuration, alteration and logistics information by Unit Identification Code (UIC). CDMD-OA's primary objective is to identify actual ships' configuration, track alterations and logistics data, and to provide necessary support to the Fleet.

11-11 Legacy FMPMIS and NDE-NM Data Responsibilities

Legacy FMPMIS and NDE-NM data may be changed when authorized by the cognizant office as illustrated in Table S11-1 as an example.

TABLE S11-1
Legacy FMPMIS and NDE-NM DATA AUTHORITY

RESPONSIBLE OFFICE	TYPES OF DATA AUTHORIZED TO CHANGE
CNO (N43)	• Overhaul schedules (CNO Controlled) • Title “K” SHIPALT priorities • Title “K” SHIPALT programming • Installation funds for Title “K” and “K-P” SHIPALTs • Funds for the approved ORDALT Installation Plan • Manday rates as provided by NAVSEA 01 and 04X
TYCOMS (for assigned ships)	• Availability schedule (DRAV, FMAV, IMAV, PRV, RAV, TAV, TOA) • Title “D” and “F” SHIPALTs/AER priorities • Title “D” and ”F” SHIPALT/AER programming • Installation funds for the Title “D” and “F” SHIPALTs/AERs • TYCOM SHIPALT completion status
SPMs (for cognizant ship classes)	• SHIPALT technical data • Installation requirements in mandays • Material requirements for SHIPALTs • SHIPALT/AER status • SHIPALT applicability to a ship • ILS requirements • SSR update requirements • Conjunctive and Concurrent SHIPALT requirements
MATERIAL MANAGERS (for assigned material)	• Material technical data • Material procurement cost • Projected material delivery date • MILSTRIP data • Procurement contract data • "Consisting of" data
INSTALLING ACTIVITY (for assigned availabilities)	• Cost to install SHIPALTs • Required material delivery date • Manday cost • Requisition Information
PLANNING YARD (for assigned hulls)	• SID availability

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SUBSECTION 12-1 INTRODUCTION

12-1.1 Scope of Section 12

This section of the Fleet Modernization Program (FMP) Management and Operations Manual defines the policies, procedures and programs for Type Commander (TYCOM) alterations which include Title "D" and "F" Ship Alterations (SHIPALTs) and Alterations Equivalent to Repair (AERs) that are authorized for accomplishment. Previous sections of this manual address all SHIPALTs with distinctions made, as appropriate, to differentiate between the various SHIPALT types. This section consolidates, into a single section, the policies, procedures and unique programs associated with the approval, programming, management and installation of TYCOM alterations. Accomplishment for these alterations includes (where applicable) alteration initiation, design (preparation of the SHIPALT Installation Drawings (SIDs) and Ship Selected Records (SSRs)), installation, modification of the Integrated Logistic Support (ILS) products and provides completion confirmation to the Ship Program Manager (SPM), TYCOM (FMP Manager), Configuration Data Manager (CDM) and the Planning Yard (PY). The various management philosophies of each TYCOM as well as special alteration initiatives are discussed in the following subsections.

12-1.2 Exceptions to Section 12

The Deputy Commander for Nuclear Propulsion (Naval Sea Systems Command (NAVSEA) 08) is responsible for all technical matters pertaining to nuclear propulsion of US Navy ships and craft, including all aspects of integration of the nuclear plant into the ship system. Nothing in this section detracts in any way from those responsibilities. Accordingly, NAVSEA 08 will be consulted in all matters related to or affecting the nuclear support facilities. In addition, the procedures and requirements in this section are not applicable to changes under the cognizance of the Deputy Commander for Nuclear Propulsion (NAVSEA 08). Strategic Systems Program Alterations (SPALTs) affecting the configuration and/or capabilities of systems and equipment under the cognizance of the Director, Strategic Systems Programs (DIRSSP) and exempt from Section 12 also. Alterations affecting the configuration of hardware, software, firmware and support equipment of the TRIDENT System under the cognizance of NAVSEA PMS392 and are also exempt from Section 12.

12-1.3 References for Section 12

The following references are the principal documents that govern the actions of the TYCOMs in executing their alteration programs.

S12(a) Appendix A, NAVSEA Tech Spec 9090-310 (Series) Subj: Alterations To Ships Accomplished by Alteration Installation Teams (AITs)

S12(b) OPNAVINST 4720.2 (Series) Subj: Fleet Modernization Program (FMP) Policy

S12(c) CINCLANTFLT/CINCPACFLT INST 4790.3 (Series) Joint Fleet Maintenance Manual

S12(d) NAVSEA Technical Specification 9090-700 (Series) Subj: Ship Configuration and Logistics Support Information System

12-1.4 TYCOM Alterations Definitions

TYCOM alterations are approved by the SPM for accomplishment as a Title "D" or "F" SHIPALT or AER depending on the scope and effects of the change. TYCOM alterations are programmed for installation by the TYCOM, as well as funded for accomplishment by the TYCOM or other organization as agreed upon. TYCOM alterations are maintenance alterations normally accomplished to improve reliability or maintainability. A TYCOM alteration is a technical alteration that has one or more of the following attributes:

a. The use of different materials that have been approved for similar use and such materials are available from standard stock.

b. The replacement of obsolete, worn-out or damaged parts, assemblies or components requiring renewal by those of later and more efficient design which has been previously approved by the SPM and such replacement does not cause a change to the systems or equipments normally associated with the military characteristics of the ship.

c. The strengthening of parts that requires repair or replacement in order to improve reliability of the parts and of the unit provided no other change in design is involved.

d. Minor modifications involving no significant changes in design or functioning of equipment but considered essential to prevent recurrence of unsatisfactory conditions.

e. The replacement of parts, assemblies or equipment with like items of later or more efficient design where it can be demonstrated that the cost of the installation and maintenance of the new parts, assemblies or components is less than the cost of maintaining the installed parts, assemblies or components, and such replacement does not cause a change to the existing system design or affect any interfacing system design and does not effect a change to the systems or equipment normally associated with the military or technical characteristics of the ship.

f. The proposed alteration is an inspection or documentation change requiring no equipment modification, but requires a vehicle to monitor accomplishment.

A definition of each type of TYCOM alteration is as follows:

a. Title "D" SHIPALT - A Title "D" SHIPALT is a permanent alteration that does not affect the military characteristics of a ship. It is formally approved by the SPM in the form of a Justification/Cost Form (JCF) and a SHIPALT Record (SAR). It may require Centrally Provided Material (CPM), but it does not require Headquarters Centrally Provided Material (HCPM). A Title "D" SHIPALT may specify whether it should be accomplished only by a depot level maintenance facility. They generally include more efficient, cost effective designs that improve ship maintainability, and meets one or more of the TYCOM alterations attributes described above.

b. Title "F" SHIPALT - A Title "F" SHIPALT is a permanent alteration that is formally approved by the SPM in the form of a JCF and a SAR. It does not require HCPM or CPM and is within ship's force capability for accomplishment; however, it may be accomplished by an Intermediate Maintenance Activity (IMA). It shall also meet one or more of the TYCOM alterations attributes described above.

c. Alteration Equivalent to Repair (AER) - An AER (formerly known as a Letter AER for Surface Ships, an Alteration & Improvement (A&I) for Submarines, and an Alteration Request (AR) for Aircraft Carriers) is a permanent alteration formally approved by the SPM, typically via letter, that meets one or more of the above described TYCOM alterations attributes and all of the following criteria:

- It does not impact Battle Force Interoperability (BFI).

- It does not impact the ship's stability records (weight and moment).
- It does not impact or alter the 3-dimensional footprint of the equipment it is replacing.
- It does not impact shipboard distributive systems (i.e. water, ventilation, electrical, power), their SSR or interfacing equipment or systems; compartmental arrangement records; or Damage Control records.
- It does not impact Manpower and Personnel.

The following procedures will be followed if the SPM internal review determines that the proposed AER should be accomplished as a SHIPALT (Title "F", "D", "K-P", or "K") or is already under development as a SHIPALT:

a. An AER can be a prerequisite to a SHIPALT such as Title "F" and "D" SHIPALTs. In this case, information relating to the development of the SHIPALT will be included in the body of the AER recommendation letter. Additionally, it should be stated that ILS products affected will be covered during SHIPALT development and execution.

b. AERs can be accomplished in place of SHIPALTs where an emergent requirement of limited applicability dictates. In this case, the body of the recommendation letter shall state that the PY shall prepare AER installation procedures.

1) If a proposed inspection AER is required until accomplishment of a SHIPALT, the AER recommendation letter will identify the ship alteration and its estimated completion date. All detailed procedures, material requirements, and ILS requirements will be excluded from the letter.

12-1.5 Policies for TYCOMs in FMP

Key FMP management policies that should be followed by all TYCOMs are as follows:

a. All TYCOM alterations must be approved by the cognizant SPM prior to accomplishment, however, the SPM may delegate limited approval authority.

b. All TYCOM alterations (including AERs) shall be entered into and accomplishment status maintained in the Navy Data Environment-Navy Modernization (NDE-NM) module (formerly known as the FMP Management Information System (FMPMIS)).

c. All proposed TYCOM alterations (including AERs) shall be evaluated for ILS impacts as described in Section 8 of this manual. The ILS Certification Form contained in Section 8 shall be prepared and provided by the TYCOM for all TYCOM alterations (including AERs) prior to approval of the alteration for accomplishment. The SPM will logistically certify TYCOM alterations in accordance with Section 8 of this manual.

d. All TYCOM alterations shall specify that upon completion, accomplishment will be reported to the CDM electronically through the Configuration Data Managers Database-Open Architecture (CDMD-OA) using the Ship Configuration and Logistics Support Information System (SCLSIS). Ship's force accomplished alterations will be reported to the CDM through the normal Shipboard Non-Tactical ADP Program (SNAP) process. Completion reporting of alterations accomplished by Alteration Installation Teams (AITs) will be in accordance with reference S12(a).

e. The Systems Command (SYSCOM) exercising technical control over the article, or the authority to which such technical control has been delegated by that command, shall approve TYCOM alterations for accomplishment prior to SPM approval.

f. For SYSCOM/Life Cycle Manager (LCM) controlled ship systems or equipments, the proposed TYCOM alterations must be reviewed by and have technical approval of the cognizant

SYSCOM/LCM prior to final SPM approval. SPMs have sole authority and responsibility for issuing approval for accomplishing TYCOM alterations.

g. TYCOMs shall recommend to the SPM cancellation of those alterations no longer desired or required.

h. Title "D" and "F" SHIPALTs shall be programmed in NDE-NM in time to permit the design process to commence at Start Of Availability (A)-12.

i. TYCOMs are responsible for authorizing, scheduling and executing Title "D" and "F" SHIPALTs and AERs.

12-1.6 Alteration Classification Determination

An alteration request can be initiated by any number of activities, i.e. ship's force, SPM, PY, TYCOM, etc. The request when received shall be evaluated to determine what type of alteration it should ultimately become, if approved by the SPM, based on the definitions of the types of FMP alterations contained in reference S12(b). If an alteration initially classified as an AER is later determined to not meet the criteria of an AER it shall be reclassified as the appropriate SHIPALT type based on the definitions contained in reference S12(b). All AER planning, programming and installations shall cease at that time. Alteration planning, programming and installations shall not recommence until the appropriate SHIPALT and requisite ILS products are developed.

SUBSECTION 12-2 SURFACE FORCE ALTERATION MANAGEMENT

12-2.1 Scope

This subsection details the processes by which both Surface Force TYCOMs execute their alteration programs. Since procedurally both TYCOMs share the same management philosophies, the procedures detailed below apply to both Commander, Naval Surface Force Pacific Fleet (COMNAVSURFPAC) and Commander, Naval Surface Force Atlantic Fleet (COMNAVSURFLANT).

12-2.2 General Subsection 12-2 Information

Reference S12(c) is the governing instruction that applies to alteration management by COMNAVSURFPAC and COMNAVSURFLANT.

12-2.3 Rapid Development of Ship Alterations (SHIPALTs) and Alterations Equivalent to Repair (AERs)

The Rapid “D ALT/AER" process is an optional process for the TYCOM to use in expediting maintenance alteration SAR, SID, and ILS products development. The main difference between this process and the standard FMP process is that many steps are combined or executed in parallel. In exchange for the rapid development, the TYCOM, rather than the SPM, tasks and funds the development of the Short-Form SAR, SIDs, and ILS. The process is:

a. The TYCOM receives an alteration request and enters a proposed alteration into NDE-NM for SPM approval. In parallel, the TYCOM tasks and funds the PY to develop a Short-Form SAR (for the Title “D” SHIPALTs), SIDs, and the appropriate activity to develop/modify the applicable ILS products.

b. The PY develops the Short-Form SAR and obtains the SPM’s approval. In parallel, the PY develops SIDs and identifies ILS requirements. If the proposed alteration does not have technical merit, is not considered cost effective or is not feasible, the PY will advise the TYCOM.

c. The SPM approves the alteration and enters an AER or SHIPALT number into NDE-NM.

d. The TYCOM programs the alteration in NDE-NM and schedules the alteration’s installation.

e. The Installing Activity (IA) installs the alteration and delivers the ILS products to the ship. The IA submits marked-up drawings to the PY to reflect installed alterations. The IA reports completion.

f. The PY updates the Drawings and SSRs.

12-2.4 Reporting TYCOM SHIPALTS

The IA reports SHIPALT completion in the Ship Alteration Completion Report NAVSEA Form 4790/14 and the Departure Report, NAVSEA Form 4790/13, when applicable. TYCOM alteration completions and alterations will be reported to the CDM electronically through the CDMD-OA using the SCLSIS in accordance with reference S12(d). Ship’s force accomplished alterations will be reported to the CDM through the normal SNAP process. Completion reporting of alterations accomplished by AITs will be in accordance with reference S12(a).

SUBSECTION 12-3 AIR SURFACE FORCE ALTERATION MANAGEMENT

12-3.1 Scope

This subsection details the processes by which both the Atlantic and Pacific Fleet Air Force TYCOMs execute their alteration programs. Since procedurally both TYCOMs share the same management philosophies, the procedures detailed below apply to both Commander, Naval Air Force Atlantic (COMNAVAIRLANT) and Commander, Naval Air Force Pacific (COMNAVAIRPAC). Supervisor of Shipbuilding, Conversion and Repair (SUPSHIP) Newport News (NN) Code 1800 provides the planning, analysis, data management and processes applied to the FMP program for both TYCOMs.

12-3.2 General Subsection 12-3 Information

Reference S12(c) is the governing instruction that applies to the management of COMNAVAIRLANT and COMNAVAIRPAC alterations.

The Aircraft Carrier community, through a process improvement review, is undergoing changes in how its traditional PY functions are performed. The Integrated Design Engineering Activity (IDEA) concept is an effort to partner the three Aircraft Carrier shipyards (Norfolk Naval Shipyard, Puget Sound Naval Shipyard and Newport News Shipbuilding) to better perform the PY functions.

12-3.3 Programming TYCOM Air Surface Force Alterations

Both TYCOMs hold semi-annual Ship Modernization Requirements Review (SMRR) meetings. These meetings consider input from individual ship representatives to establish Title "D" and "F" SHIPALT programming and ship "Top Twenty" AER listings. The SMRRs also establish Title "K" SHIPALT programming recommendations for submission to the SPM.

SUPSHIPNN Code 1800 enters the SMRR results in the NDE-NM and maintains the data. In addition, they evaluate alterations for conformance to SPM guidance and installation cost estimates, identify IA other than industrial facilities (i.e., AITs) and make programming recommendations.

12-3.4 Tasking TYCOM Air Surface Force Alterations SHIPALTS

As the TYCOM agent, SUPSHIPNN Code 1800 tasks the PY and industrial accomplishing activity at approximately A-23 in a Modernization Advance Planning Guidance Letter for Title “D” SHIPALTs and issues revisions as required.

After the Project Review Conference (PRC) at A-5/7 Title "D" and "F" SHIPALTs and AERs authorization for accomplishment is adjudicated by the approved Availability Work Package (AWP) issued by the TYCOM or their designated representative. Alterations tasked for accomplishment by ship’s force will also be included in the AWP.

Title "F" SHIPALTs (and Title "D" SHIPALTs within the capability of ship’s force to accomplish that are not completed or only partially completed, and completion is desired) will have an OPNAV Form 4790/2K deferral entered in the Current Ship Maintenance Project

(CSMP) and will be accomplished as ship's force workload permits.

12-3.5 Material Management for TYCOM Air Surface Force Alterations

12-3.5.1 SUPSHIP Newport News Code 1800 Responsibilities

a. Manage NDE-NM Material Programs as identified in the Fiscal Year Planning Management Task Letter.

b. Manage and maintain SHIPALT Bill Of Material (BOM) in NDE-NM from priority and sequence of the following documents:

1) JCF.
2) Approved SAR (A-12).
3) Liaison Action Record (LAR) (as required).
4) Non-standard material requirements will not be entered into NDE-NM after A-14.
5) No NDE-NM BOM additions are authorized after A-10.

c. Report the status of SHIPALT material at A-15, A-12, A-9, A-6 and monthly thereafter until Start Of Availability (SOA) from reports received from the Naval Supervising Activity (NSA) and Naval Inventory Control Point-Mechanicsburg (NAVICP-M)/Defense Logistics Agency (DLA).

d. Resolve material identification and availability problems.

12-3.5.2 Integrated Design Engineering Activity (IDEA) Responsibilities

Provide SUPSHIPNN Code 1800 the following documents which identify NDE-NM worthy material:

a. Approved SAR (No Later Than (NLT) A-20) or when approved SAR is received from the SPM.

b. Marked-up NDE-NM 4720/3 Report with LARs at A-9 based on completed SIDs.

12-3.5.3 NSA Responsibilities

a. Review NDE-NM 4720/3 Report at A-23 to ensure consistency between the SHIPALTs listed and those identified by the guidance letter. Periodically monitor this report for changes in material requirements, and take the necessary actions to procure via the supply system and cancel requisitions as changes occur.

b. Issue funded requisitions for NDE-NM material Planned Program Requirements (PPRs)/Special Program Requirements (SPRs) rejections and for Long Lead Time Material (LLTM) procurement for SHIPALTs listed in the guidance letter as they occur.

c. Determine/request the amount of funding required to procure the remaining NDE-NM material identified on the 4720/3 Report by letter at A-16.

d. Review NDE-NM 4720/3 Report, at A-16 and requisition all material whose Procurement Lead Time (PLT) is greater than or equal to 12 months. Requisition all remaining NDE-NM material by A-9 for DLA cognizance items and A-8 for NAVICP-M cognizant items.

e. Provide material requisition/procurement status report (SSMP-800 or equivalent) to SUPSHIPNN Code 1800 NLT A-16, A-13 and monthly thereafter until SOA. Identify any problems or deficiencies to ensure corrective action.

f. For SHIPALTs identified by NDE-NM, cancel requisitions for any items that are no longer required.

g. At the conclusion of ship's availability, identify all excess SHIPALT material as follows:

1) For Hardware Systems Command (HSC) excesses, consult the applicable material manager for disposition instructions.
2) For Inventory Control Point (ICP) excesses consult the SPM/TYCOM and SUPSHIPNN Code 1800 for disposition instructions.

12-3.5.4 Ship's Force Accomplished TYCOM Alterations

a. The IDEA takes the NDE-NM SHIPALT BOM to the ship and updates the BOM based upon its ship check.

b. SUPSHIPNN Code 1800 reviews the alteration and SHIPALT BOMs on a continuing basis and identifies potential alteration material problems.

c. The applicable NSA requisitions material at A-15 to A-8 depending on SID availability.

d. For Title "D" SHIPALTs tasked ship's force for accomplishment, Operating Target (OPTAR) funds will be utilized for material procurement.

12-3.6 Installation of TYCOM Alterations

The NSA supervises Title "D" and "F" SHIPALT and AER installations.

12-3.7 Reporting TYCOM Alterations

TYCOM alteration completions will be reported to the CDM electronically through the CDMD-OA using the SCLSIS in accordance with reference S12(d). Ship's force accomplished alterations will be reported to the CDM through the normal SNAP process. Completion reporting of alterations accomplished by AITs will be in accordance with reference S12(a).

12-3.8 Identification and Documentation of TYCOM Alterations

SUPSHIPNN Code 1800 is tasked to identify, analyze and maintain the NDE-NM and SHIPALT working files (JCF, SAR, LAR and correspondence) for all Aircraft Carrier TYCOM alterations.

12-3.8.1 AER Numbering System

At AER origination a unique number shall be assigned to the AER. The AER numbering system uses a two-digit originating designator to indicate the general origin of the AR. The two-digit fiscal year designator follows this, which is in turn followed by a three-digit sequential number. The format is as follows:

XX-FY-001, examples being 01-97-034 or 73-98-067

The originator numbers are:

Number 01. Designates an AIRLANT origination.
Number 02. Designates an AIRPAC origination.
Number 03. Designates a NAVSEA origination.
Number 04. Designates a SRF Yokosuka origination.
Number 05. Designates a NAVSHIPYD Norfolk origination.
Number 06. Designates a NAVSHIPYD Puget Sound origination.
Ship Number XX. Designates a ship origination, or ship generated, using the hull number.

12-3.8.2 NDE-NM Support and SHIPALT Working Files

In providing support to the TYCOMs, SUPSHIPNN Code 1800 is tasked to:

a. Liaison with the SPM to identify new SHIPALTs for inclusion in the NDE-NM.

b. Develop briefs for newly identified Title "D" and "F" SHIPALTs.

c. Request Ship Managers identify SHIPALTs to be accomplished by AITs. Input identified SHIPALTs into the SHIPALT Working Files and database including accomplishing activity and a point of contact.

d. Coordinate, track and maintain an AIT Data Base and SHIPALT Working File for all Aircraft Carrier Title "D" and "F" SHIPALTs scheduled for accomplishment by an AIT activity.

e. Indicate in the SHIPALT Working Files and data base those Title "D" and "F" SHIPALTs that have guidance and/or material problems.

12-3.8.3 Support of the TYCOMs SMRR

SUPSHIPNN 1800 will:

a. Develop a "proposed" Title "D" and "F" SHIPALT and AER FMP file. This file will include the results of the latest SMRR and all official changes.

b. Enter the results of SMRRs into the SHIPALT Working File and the NDE-NM with the results published as workbooks.

12-3.8.4 Actions Accomplished After the SMRR Conferences

After the SMRR Conference SUPSHIPNN Code 1800 will:

a. Enter changes/programming into NDE-NM and update the NDE-NM from verified SHIPALT Working File.

b. Issue:

1) Results of SMRR books.
2) SHIPALT Data Bank (Rainbow Book).
3) AIT SHIPALT Results.
4) AER status/programming results of the TYCOM and SMRR Conferences.

SUBSECTION 12-4 SUBMARINE FORCE ALTERATION MANAGEMENT

12-4.1 Scope

This subsection details the processes by which both the Atlantic and Pacific Fleet Submarine TYCOMs execute their alteration programs. Since procedurally both TYCOMs share the same management philosophies, the procedures detailed below apply to both Commander, Submarine Force Atlantic (COMSUBLANT) and Commander, Submarine Force Pacific (COMSUBPAC).

12-4.2 General Subsection 12-4 Information

Reference S12(c) is the governing instruction that applies to the management of COMSUBLANT and COMSUBPAC alterations.

12-4.2.1 Data Bases Used to Monitor Alteration Status

12-4.2.1.1 TYCOM Alteration Management System (TAMS)

TAMS is an automated system operated by the TYCOMs containing information related to alteration status, authorization, scheduling and accomplished activity for all Reactor Plant SHIPALTs, Non-Reactor Plant Title "D", "F" and "K-P" SHIPALTs and all AERs. TAMS is the official TYCOM instrument by which all Reactor Plant SHIPALTs, Non-Reactor Plant Title "D" and "F" SHIPALTs and all AERs are authorized for accomplishment and completion status maintained.

12-4.2.1.2 Navy Data Environment-Navy Modernization

NDE-NM, as the official Navy automated system for FMP, is maintained current by uploads of the TYCOM TAMS database. Status and programming of non-reactor plant Title "D" and "F" SHIPALTs and AERs are updated electronically from TAMS.

12-4.2.2 Special Alteration Programs

12-4.2.2.1 TYCOM Alteration Kit (TYKIT)

TYKIT is a joint COMSUBLANT/COMSUBPAC program managed and funded by the TYCOMs to facilitate installation of selected Title "D" and "F" SHIPALTs and AERs by ship’s force through centralized material identification, procurement, pre-fabrication and kitting. TYKITs are discussed in detail in Subsection 12-4.6.

12-4.2.2.2 2 AER Program

The AER program (formerly known as the Alteration & Improvement (A&I) program) is managed and funded by the TYCOMs for authorizing and monitoring the status of accomplishment of minor ship modifications, inspections and tests. AERs are discussed in detail in Section 12-4.5.2.

12-4.3 TYCOM Alterations Responsibilities

12-4.3.1 TYCOM Responsibilities for Submarine Alterations

a. Prioritize development of new alterations by assignment of a merit score to each AR.

b. Monitor completion of Category A, Ship Safety, AERs within one year of authorization in accordance with reference S12(c).

c. Closely monitor new alterations being issued to ensure that those alterations within ship's force capability are assigned to the TYKIT or other packaging program where feasible. For those alterations not selected for inclusion in the TYKIT program, verify the availability of material, design, and ILS products prior to authorizing accomplishment.

d. Enter in TAMS an authorization or completion status for all SHIPALTs and AERs. For those alterations that are outstanding, assign a Fiscal Year Programmed (FYPR) and designated accomplishment level.

e. Monitor completion status and electronically update SHIPALTs and AERs in NDE-NM with an authorization or completion status code, FYPR and installing activity.

f. Distribute TAMS reports on a periodic basis.

g. Direct Submarine Maintenance, Engineering, Planning and Procurement (SUBMEPP) to provide Master Job Catalog (MJC) records of outstanding SHIPALTs and AERs to each IMA.

h. Authorize Temporary Alterations' (TEMPALTs') installation, and monitor their installation and removal.

12-4.3.2 Immediate Superiors In Command (ISICs)

ISICs are responsible for managing the alteration program for each unit in the squadron and shall:

a. Inform IMA personnel of all upcoming availabilities and provide a current TAMS report containing all alterations authorized for ship's force accomplishment.

b. Establish installation priorities.

c. Ensure that the IMA draws down TYKITs or other package alterations that are authorized and ready to use.

d. Ensure that no action is taken to begin material procurement on alterations that are designated as TYKITs or other type packages. In the event that material procurement was started prior to the time the alteration was designated as a package, notify the TYCOM to preclude duplicate material procurement.

e. Maintain a file of TAMS and NDE-NM reports, SHIPALT and AER briefs, and other related documentation.

f. Maintain current status of alterations by annotating TAMS and NDE-NM reports.

g. Inform the TYCOM of any programming deficiencies found or changes required to TAMS/NDE-NM programming related to hull applicability, the non-availability of material or software for an authorized alteration, or the availability of material and software on an unauthorized alteration.

h. Ensure that only authorized SHIPALTs and AERs appear on the individual CSMP.

i. Respond to alterations designated in TAMS as requiring a ship check by ensuring that they are conducted during the next upkeep by either ship's force or IMA.

j. Review reports of alteration completions provided by the shipyard during availabilities. Submit reports of discrepancies to the TYCOM for resolution.

k. Short and long-range planning responsibilities are shown in Figures S12-1 and S12-2.

l. Monitor completion report submissions to report Non-Reactor Plant alteration accomplishments.

FIGURE S12-1

SHORT-RANGE (AVAILABILITY) PLANNING

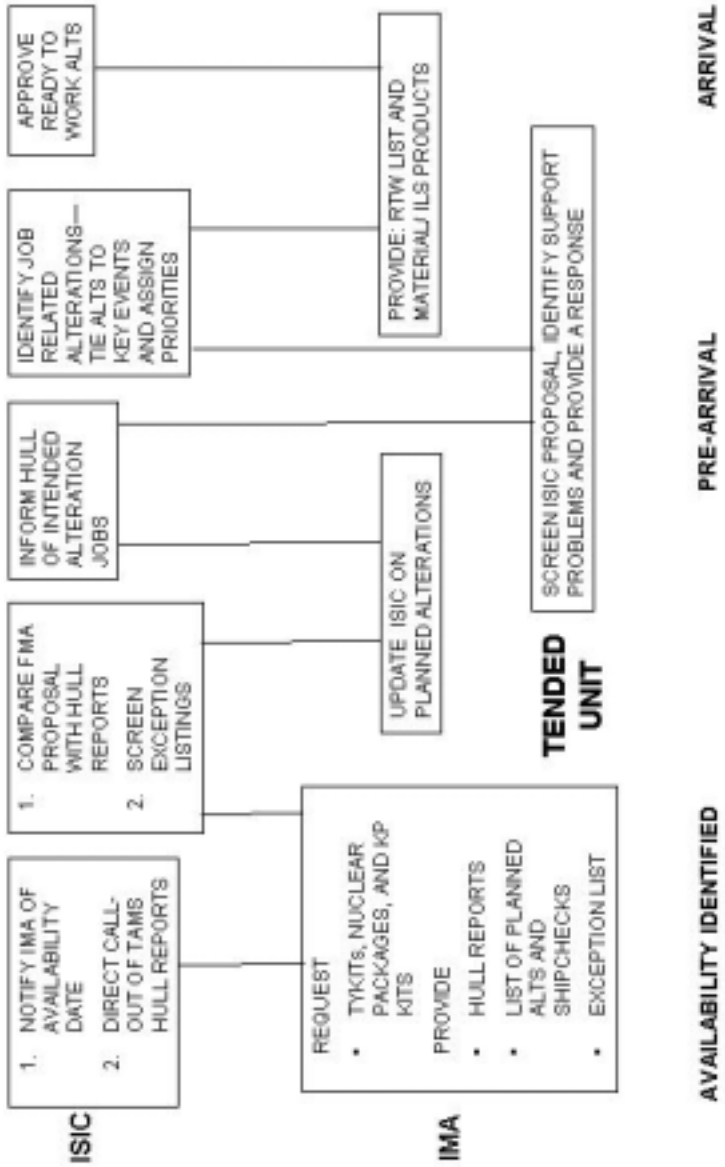
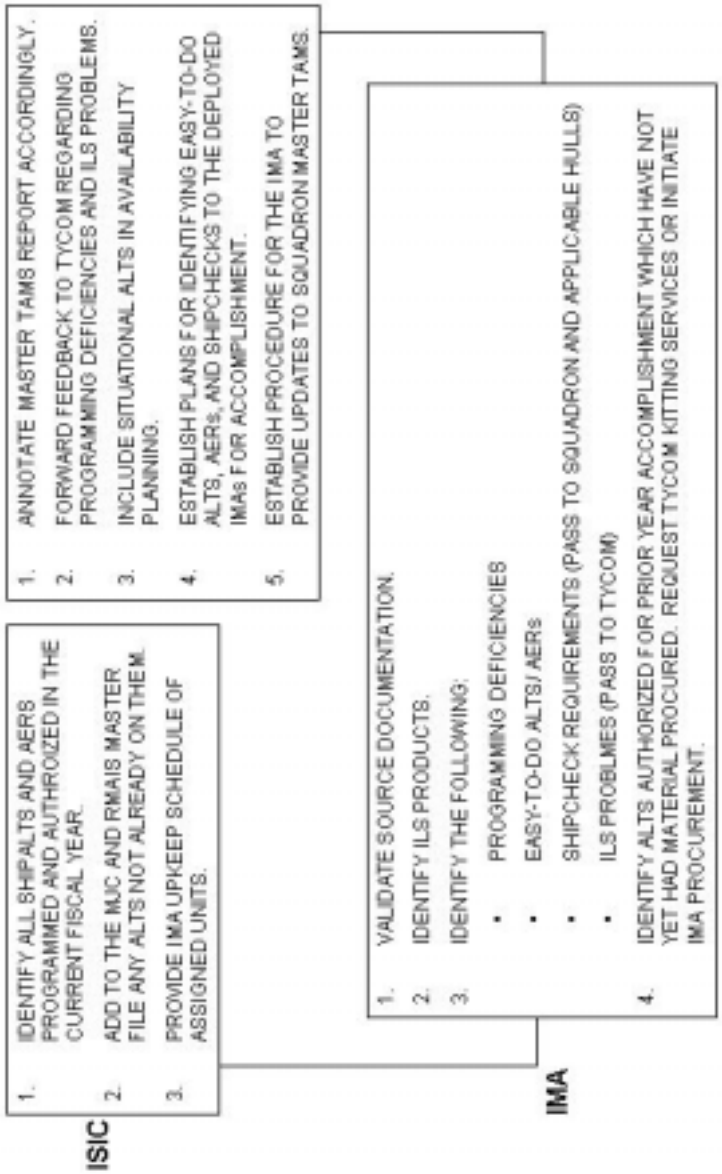


FIGURE S12-2
LONG-RANGE PLANNING



12-4.3.3 IMAs Submarine Alteration Responsibilities

The IMA will establish and maintain an Alteration Management Group that will:

a. Using the priorities established by the ISIC, commence the alteration planning effort in time to permit accomplishment of alterations on designated units by the end of the Fiscal Year (FY) indicated by the TYCOM (FYPR in TAMS).

b. Ensure requested ship checks are conducted in a timely manner by ship's force.

c. Ensure TYKITs that are authorized and noted in TAMS as Ready-For-Issue (RFI) are in hand far enough in advance to ensure its availability for installation during an upcoming upkeep. In addition, ensure that material necessary for installation of alterations not designated as TYKIT is ordered well in advance of desired installation. This includes obtaining all hardware and software required for ship's force responsible items.

d. Ensure no action is taken to accomplish alterations that are not designated for ship’s force accomplishment or alterations that are not currently authorized without concurrence from the

TYCOM.

e. Ensure no action is taken to begin material procurement on alterations that are designated as TYKIT or other type packages.

f. Provide for proper storage of TYKITs and other alteration material. This includes taking adequate measures for marking material to identify the alteration and submarine for which it is intended. Positive control of alteration material is required. Proper controls will allow transfer of material between IMAs in the event of ship transfer and minimize the chance of material loses.

g. Report TYCOM alteration completions to the CDM electronically through the CDMD-OA using the SCLSIS for Non-Reactor Plant alterations completions.

h. Maintain a file of TAMS and NDE-NM reports, SHIPALT and AER briefs, and other related documents.

i. Short and long-range planning responsibilities are shown in Figures S12-1 and S12-2.

12-4.3.4 Ship's Force Responsibilities

Ship's force will designate, in writing, the Maintenance and Material Management (3-M) Coordinator or designated assistant as the Alteration Coordinator who will:

a. Submit verification reports of alteration status as required by the TYCOM.

b. Respond to specific requests for ship checks made by the IMA, ISIC or TYCOM to verify alteration status in a timely manner.

c. Maintain a current set of TAMS and NDE-NM reports and annotate any status changes reported.

d. Verify TAMS/NDE-NM reports for accuracy upon receipt and report any discrepancies to the ISIC.

e. Track the accomplishment of alterations during depot availabilities by both the industrial activity and the ship's force to ensure a comprehensive completion report at the End Of Availability (EOA).

f. Monitor the submission of CDMD-OA data to report completion of all alterations accomplished on the ship regardless of the NSA or when it is installed, (i.e. Regular Overhaul (ROH), Selected Restricted Availability (SRA), Extended Refit Period (ERP), AIT, IMA, etc.)

12-4.4 Source Documentation for Submarine TYCOM Alterations

The following source documentation is available to ship's force to assist in the management and execution of the TYCOM alteration program:

a. MJC records of all active SHIPALTs and AERs.

b. TAMS reports containing information on all SHIPALTs and AERs.

c. SHIPALT and AER briefs.

d. Indices of Title "D" and "F" SHIPALT software/drawings providing the status and completion of software and drawings (Alterations and Projects Report).

e. Forces Afloat Software Package (FASP) SHIPALT software documents providing instructions for ship's force installation.

12-4.5 TYCOM Submarine Alteration Planning and Programming

12-4.5.1 Title "D" and "F" SHIPALTs

Title "D" and "F" SHIPALT programming process begins when the alteration is first issued by

the SPM. Each SHIPALT is handled on a case-by-case basis.

a. TYCOMs review for desirability and, if accomplishment is desired, initially assign a TYST of "A", FYPR of "00" and PRRMK of "TYC" in TAMS. This alerts the fleet that this new alteration is applicable to the hulls listed. However, it is not yet authorized for accomplishment until the TYCOMs determine the FY and level of accomplishment.

b. Evaluated for inclusion in TYKIT or accomplishment by an AIT.

c. If the alteration is not selected for inclusion in the TYKIT or AIT programs, programming in TAMS will be as follows:

1) Determine level of accomplishment and enter the appropriate level in the PRRMK field. FYPR and TYST will be adjusted accordingly.
2) If the SHIPALT is a shipyard only accomplishment, it is programmed TYST = A or B (depending on whether it is being placed in a package within the next year or not), FYPR = FY of the next shipyard availability and the PRRMK = applicable availability. The Work Definition Conference (WDC), usually conducted at between A-15 and A-12, produces a work package that is considered the authorization package for Title "D" and "F" SHIPALTs installed by the designated industrial activity.
3) If the SHIPALT is not included in an availability work package, it is programmed TYST = A, FYPR = Current/Next/Next + 1FY (depending on the design and LLTM required) and PRRMK = IMA. The SHIPALT will be authorized for forces afloat accomplishment when the design is issued and material is available.

d. Review source documentation and authorize accomplishment of alterations when software and materials are available.

e. Completion status is monitored in the TAMS database.

12-4.5.2 Alteration Equivalent To Repair (AER) Items

AERs are issued by the TYCOM subsequent to SPM technical approval. They may be originated in response to an AR or based directly on correspondence from a technical authority requesting an AER. All technical modifications affecting ship's configuration (both major and minor) shall be accomplished as a SHIPALT and require SPM approval. All AERs must contain an ILS assessment. Non-technical AERs may be originated by the TYCOM to account for inspections and tests for which a specific record of accomplishment is desired.

AER numbers are assigned for accounting purposes by the SPM. In cases where an AER is applicable to more than one submarine type or class or when the AER is issued by both Atlantic and Pacific fleets, the number assigned will be the same.

TYCOMs will review each AER for possible induction in the TYKIT program. If not selected for inclusion in the TYKIT program, an appropriate FYPR and installing activity will be assigned. Accomplishment will be authorized when software, material are available. Completion status is monitored in the TAMS database and NDE-NM.

12-4.5.3 TYKIT Programming

Alterations selected for inclusion in the TYKIT program will initially be programmed in TAMS as TYST = A, FYPR = Two (2) Years Out, PRRMK = TKT and REMKS = Under Procurement with Estimated Availability Date (when known). If the TYKIT is to be included in a depot availability work package, FYPR will be changed to the FY of the availability, TYST will be

changed to "B" and PRRMK will be changed to TSY". REMKS will note "SY utilize TYKIT to accomplish". When the TYKIT becomes available, TYST will be changed to "B" and REMKS will note that the kit is "Ready For Issue". Shipping information will also be noted in the REMKS field as kits are shipped.

12-4.5.4 TYKIT Material

TRIDENT Refit Facility (TRIREFFAC) Kings Bay, GA procures all TYKIT material (including all NDE-NM material), and assembles and ships the TYKITs for both COMSUBLANT and COMSUBPAC.

12-4.5.5 Material Requirements for Submarine Alterations

Material, including Incidental Material (IM), requirements for Title "D" and "F" SHIPALTs installed by ship's force are reviewed by the TYCOMs. As often as possible, Title "D" SHIPALTs assigned to ship's force for installation are packaged by the TYKIT program. Material requirements are reviewed, researched, identified and procured in bulk. Material requirements for Title "D" SHIPALTs will be tracked in NDE-NM. SUBMEPP manages the non-standard LLTM program for the TYCOM. With TYCOM authorization and funding, SUBMEPP procures the material and manages the overall program. Other material is requisitioned by the NSA whether it is a shipyard or IMA. For those ship's force alterations that are kitted by the TYKIT program, material is requisitioned by the TRIREFFAC Kings Bay.

12-4.5.6 Completion Reporting for Submarine Alterations

TYCOM alteration completions for Non-Reactor Plant SHIPALTs and AERs will be reported to the CDM electronically through the CDMD-OA using the SCLSIS in accordance with reference S12(d). Ship's Force accomplished alterations will be reported to the CDM through the normal SNAP process. Completion reporting of alterations accomplished by AITs will be in accordance with reference S12(a).

12-4.6 TYKIT PROGRAM

TYKIT is a joint COMSUBLANT/COMSUBPAC program developed and managed by the TYCOMs to facilitate installation of selected Title "D" and "F" SHIPALTs and AER items by ship's force. All hardware and software required for planning accomplishment and completion reporting of the alterations selected for the TYKIT program is assembled for ship's force. Supplemental procedures will be provided in the TYKIT when the FASP software is inadequate for installation. No action should be taken by ship's force to obtain hardware to accomplish these installations. Accomplishment will be authorized by the TYCOM via TAMS when the TYKIT is available.

12-4.6.1 TYKIT Shipment, Receipt and Storage

Secure storage and a chain of receipt signatures for each TYKIT should be ensured from the time of initial receipt to installation. A TYKIT marked for one submarine must not be used for another submarine without prior concurrence of the TYCOM.

GLOSSARY

Allowance Equipage List (AEL)

A document which lists the portable equipage, repair parts, and consumable items authorized and required to be on board a ship for the performance of its mission. The AEL material is identified as Operating Space Items (OSIs) collectively know as equipage.

Allowance Parts List (APL)

A technical document that lists all maintenance significant repair parts for each system and major components onboard. The quantity of each repair part and/or equipage item authorized to be carried onboard a ship is shown on the Stock Number Sequence List (SNSL) and is determined by a computation for each item listed in the COSAL.

Alteration

Any change in the hull, machinery, equipment, or fittings that involves a change in design, materials, number, location, or relationship of an assembly's component parts whether the change is separate from, incidental to, or in conjunction with repairs.

Alteration Bill of Material Source Code (IBOM)

A code in FMPMIS indicating the action or document which last initiated a change to the Bill of Material (BOM) (e.g. IBOM = 8 – No material required, IBOM = 3 – SAR BOM, etc.)

Alterations Equivalent to a Repair (AER) An AER (formerly known as a Letter AER for Surface Ships, an Alteration & Improvement (A&I) for Submarines, and an Alteration Request (AR) for Aircraft Carriers) is a permanent alteration formally approved by the SPM, typically via letter, that meets one or more of the TYCOM alteration attributes and all of the following criteria:

- It does not impact Battle Force Interoperability (BFI).
- It does not impact the ship's stability records (weight and moment).
- It does not impact or alter the 3-dimensional footprint of the equipment it is replacing.
- It does not impact shipboard distributive systems (i.e. water, ventilation, electrical, power), their SSR or interfacing equipment or systems; compartmental arrangement records; or Damage Control records.
- It does not impact Manpower and Personnel.

Alteration Installation Team (AIT)

A Navy team (military, civilian or civilian contractor team under the direction of Navy personnel that is trained and equipped to accomplish specific SHIPALTs or temporary modifications on specified ships.

Alteration Material List (AML)

This is Block 23 on the SAR. All Logistically Significant Material (LSM) is listed on the SAR AML and any other material required. The SPM is responsible for entering the material in FMPMIS.

Amalgamated Military and Technical Improvement Priority (AMTPRI)

Alterations are prioritized for each class of ships based on essentiality or criticality in meeting the required operational capability (ROC). The priority for Title "K" and "KP" alterations are assigned by CNO and Title "D" and "F" alteration priorities are assigned by the

TYCOM. The priority serves as the basis for programming actions. A code may be entered in this field when no priority is warranted, or to suspend or cancel an alteration. (Example: 900 codes are to cancel; 800 codes are suspension codes.)

Annualized

Annualized means that installation and advance planning funding should come from the budget fiscal year (FY) in which the requirements exist, rather than the budget FY in which the Headquarters Centrally Provided Material (HCPM) is procured.

Apportioned

Funds given to an accomplishing activity.

Appropriations Purchase Account (APA)

All stock material procured directly under Navy Procurement appropriations other than Marine Corps appropriations and other than stores is included in the Navy Stock Account (NSA). It is Hardware Systems Command (HSC) material. All APA material is issued on a non-reimbursable basis when the material is to meet a Fleet requirement (e.g. overhaul).

Availability

Scheduled assignment of a ship to an industrial activity for the purpose of accomplishing repairs or performing maintenance and/or modernization. Specific types of availabilities assigned ships are:

- **Depot Modernization Period (DMP)** – An industrial availability for accomplishment of major high priority warfare improvement alterations and such essential maintenance as necessary to ensure unrestricted operations to design test depth. A DMP is designed to increase SSN fleet operational availability by replacing the first non-refueling ROH for SSN 700-718.
- **Dry-docking Phased Maintenance Availability (DPMA)** – A phased maintenance availability extended to include drydocking of the ship.
- **Dry-docking Selected Restricted Availability (DSRA)** – A selected restricted availability extended to include drydocking of the ship.
- **Extended Refit Period (ERP)** – A 60-day planned availability for SSBN nuclear submarines scheduled approximately 4 ½ and 7 ½ years after overhaul to accommodate accomplishment of major industrial and intermediate level work items.
- **Fitting Out Availability (FOA)** – An availability at the shipyard designated as the fitting out activity to place onboard the material specified in the ship's allowance lists.
- **Intermediate Maintenance Availability (IMAV)** – An availability at an Intermediate Maintenance Activity for the accomplishment of repairs and modernization. These availabilities may be planned and scheduled or emergent. During these availabilities, the ship may be rendered incapable of fully performing its assigned mission and tasks because of the nature of the repair work.
- **Phased Maintenance Availability (PMA)** – A short, labor intensive availability for the accomplishment of general repairs and modernization by industrial activities. Ships assigned to Phase Maintenance Programs are maintained through PMAs in lieu of Regular Overhaul (ROHs).
- **Post Shakedown Availability (PSA) –** An availability assigned to newly built, activated or converted ships upon completion of a shakedown cruise. The PSA will normally be of 1 ½ - 4 months duration and will be completed no later than the end of the eleventh month after completion of fitting out at which time SCN funding and

work authority terminates. Work performed shall be limited to correcting defects noted during the shakedown cruise and those remaining from Acceptance Trials.

- **Restricted Availability (RAV)** – An availability assigned for the accomplishments of specific items of work by an industrial activity during which the ship is rendered incapable of fully performing its assigned missions and tasks. Restricted Availabilities are assigned by TYCOMs.
- **Selected Restricted Availability (SRA)** – An availability scheduled by the CNO for the accomplishment of repairs and selected alterations by industrial activities sometimes with intermediate level maintenance. These short, labor-intensive availabilities are assigned to accomplish work that is required to sustain the material condition of the ship between overhauls, particularly those ships on extended operating cycles. They are scheduled sufficiently in advance to ensure advanced planning time and funds are effectively utilized.
- **Technical Availability (TAV) –** An availability for the accomplishment of specific items of work by a repair activity, during which the ship's ability to fully perform its assigned mission and tasks is not affected.
- **Voyage Repairs –** Emergency work necessary to repair damage sustained by a ship to enable the ship to continue on its mission and which can be accomplished without requiring a change in the ship's operating schedule or the general streaming notice in effect.

Best Estimated Delivery Date (BEDD)

The best estimated delivery date of a material item as determined by the material/equipment manager.

Bill of Material (BOM)

A complete listing of material requirements in FMPMIS for alteration installation.

Centrally Provided Material (CPM)

CPM is provided to the installing activity by the cognizant material manager or other central activity as determined by the Ship Program Manager (SPM). It may be provided by NAVICP/DLA, PERA, ISEA, or Planning Yard. Factors considered in designating CPM are technical and quality constraints, logistics support requirements, and material criticality. Activities designated to procure CPM will be responsible for the material control and management functions including full logistics support.

Change in Funding Document Scope

Funding documents issued to field activities for accomplishment of work under the FMP should be specific, definite, and certain as to the work to be performed. Change in scope amendments to funding documents which increase the scope of work may be made at a time during the fiscal year for which the appropriation obligated is available for new obligation. Changes which decrease the scope may be made at anytime. Change in scope amendments to funding documents should also be specific, definite, and certain as to the work to be performed. Further, they should be issued only as specifically needed to accommodate emergent requirements.

Change in Program Scope

An action which adds, expands, subtracts, or decreases work delineated in the currently approved funding document or references thereto. Any addition or decrease in end items (e.g. equipments installed) or in the nature of work required or material procured which differs from the requirement stated in applicable SHIPALT technical documentation or tasks delineated in the

currently approved funding document or references thereto will be considered a change in Program Scope.

CNO Escrow Account

A management account to isolate funds released as a result of the cancellation or deferral of previously programmed and funded alteration installations or support. It is for use by the Program Manager, CNO (OP-43), when it is required to finance unbudgeted cost increases or emergent work associated with the FMP. All FMP funds released from program as a result of cancellation or deferral are transferred to the CNO Escrow Account and may not be transferred out of that account except as directed by CNO (OP-43). NAVSEA 914 has responsibility for NAVSEA's management of the CNO Escrow Account.

Configuration Data Manager (CDM)

A Configuration Data Manager is a designated activity, assigned by ship class, having total responsibility for the completeness and accuracy of data within the SCLSI Data Base.

Coordinated Shipboard Allowance List (COSAL)

The basic documents for assembling and placing on board equipment/component repair parts and special tools, equipage, and supplies. The documents also provide essential information for shipboard management of the material (e.g. identification, requisitioning, stowage, inventory, and maintenance of stock records).

Configuration Overhaul Planning (COP)

COP identifies and documents alterations expected to be made to a ship during an availability. This documentation contains the logistics elements required to support the NSA/IA during the availability period, provide the CDM with the necessary data to update the SCLSI Data Base and, through the SCLSIS process, assures the ship has accurate, complete configuration and logistics records at EOA. COP data is submitted to the CDMs via the Planned Installation Report (PIR). The responsibility for COP resides with the Planning Yard.

Cost and Feasibility Study (C&F)

A detailed study of a PMI/PSI which provides additional technical information and installation cost estimates. Used by CNO to decide whether or not to proceed with the development of the proposed improvements.

Depot Level Maintenance

Maintenance which requires skills and facilities beyond the level of the organizational and intermediate levels and is performed at Naval shipyards, private shipyards, NSRFs or other shore-based activities. Approved alterations and modifications, which update and improve the ship's military and technical capabilities, are also accomplished.

Design Agent

The Planning Yard, Overhaul Shipyard, or Planning SUPSHIP that is assigned responsibility for engineering support for SHIPALT development and technical support to overhaul activities for planning and accomplishment of SHIPALTs in specific availabilities.

Design Services Allocation (DSA)

The Design Services Allocation is a funding line which provides for design and SHIPALT development work including SAR, SID, MDS, LAR, and SSR update including Configuration Overhaul Planning (COP).

Electronic Field Changes

Any modification or alteration made to electronic equipment after delivery to the government.

Emergent Installation Report (EIR)

For the purposes of this manual, "emergent" is defined as configuration changes not identified in the COP/PIR Reports and/or not identified in the SPM planning documentation. An EIR is to be completed by the NSA and submitted to the CDM for any alteration not addressed by a PIR. This definition is not to be construed as altering or affecting the definition of "emergent" as used in the contracting/work package identification cycle of SHIPALT planning. An EIR can be in SCLSIS approved automated format or hardcopy.

End Use Item

A term applied to denote the ultimate use of a final combination of end products, subassemblies, component parts, and material ready for its intended use.

Engineering Change Proposal (ECP)

An improvement identified which includes development data necessary to convert the proposal into a Formal Engineering Change Proposal. It fully describes the improvement, identifies major material requirements, and estimates the quantity of installations and the cost of each. It is approved by a Configuration Control Board.

Field Change (FC)

A Field Change is any modification or alteration made to equipment after delivery to the government. They are modifications resulting from approved Engineering Change Proposals.

Final Review Estimate (FRE)

These estimates provide a mechanism whereby NAVSEA SPMs and the accomplishing activity formally agree on the cost of each of the alterations to be done during the availability. Final review estimates are due from the NSA 45 days prior to SOA or 45 days prior to WPIC.

Fleet Modernization Program (FMP)

The Fleet Modernization Program provides the management structure by which the characteristics of ships of the active and reserve fleets are improved. Changes to ship characteristics are accomplished by SHIPALTs, MACHALTs, ORDALTs, TEMPALTs, or Field Changes and are developed and installed when military, survivability, or technical characteristic considerations dictate ship configuration changes.

Fleet Modernization Program Management Information System (FMPMIS)

The official automated system supporting the information and decision support requirements of FMP managers Navy-wide. The FMPMIS data base contains data related to: ships and their availability schedules; alterations applicability; alteration material requirements and procurement status; and material, installation and outfitting costs. The FMPMIS data base is the authoritative planning baseline for FMP operations throughout the Navy FMP community.

Functional Identification Number (FIN)

The FIN is a five digit number, the first three (3) digits, left justified, identify the functional area, system or equipment which is impacted by the SHIPALT and the last two (2) digits identify the purpose for which the SHIPALT is being developed. The SAR originator assigns the FIN number.

Government Furnished Material (GFM)

Property provided by the government for the purpose of being incorporated into or attached to a deliverable end item or that will be consumed or expended in performing the contract. This material is provided at no cost to the shipbuilder and is not included in the shipbuilder's contract price. This material is generally Headquarters Systems Command (HSC) material.

Headquarters Centrally Provided Material (HCPM)

HCPM consists of equipment provided by the Naval Sea Systems Command, Naval Air Systems Command and Space and Naval Warfare Systems Command. Material managers provide status of material requirements for programmed Ship Alterations (SHIPALTs) in the Fleet Modernization Program Management Information System (FMPMIS). This material is provided at no cost to the shipbuilder/IA and is considered GFM.

In-Service Engineering Agent (ISEA)

An activity delegated support functions by a system technical manager for the overall engineering, test, maintenance, and logistics requirements incident to a specific operational environment.

Incidental Material (IM)

IM is any Ship Alteration (SHIPALT) material requisitioned, fabricated or locally procured by the NSA that is not listed on the Ship Alteration Record (SAR) Alteration Material List (AML). This material is locally available, off-the-shelf, and logistics support is not required. Installation planning, control and management is the responsibility of the NSA. IM will normally be chargeable to alteration installation funds and will be requisitioned or purchased by the NSA. The FMP estimate which is entered in the Fleet Modernization Program Management Information System (FMPMIS) for IM must include "odd cog" items plus truly incidental items such as nuts, bolts, etc.

Installation Report (IR)

The IR is submitted by the NSA to the CDM to verify the accomplishment (or cancellation) of a planned alteration. An IR can be in approved SCLSIS automated format or hardcopy. The IR is a Planning Installation Report (PIR) that has been completed by the NSA. It contains information not known by the Planning Yard at the time of COP submission (i.e. equipment serial numbers).

Integrated Class Maintenance Plan (CMP)

An electronic web-based document that identifies the required periodic maintenance and repairs applicable to ships of a specific class during their operating cycles. Developed for each ship class following the concepts of reliability centered maintenance. The goal is to accomplish maintenance necessary to achieve maximum operational availability at lowest practical cost.

Integrated Logistics Overhaul (ILO)

ILOs are conducted in parallel with selected depot availabilities. ILO's re-outfit ships with all logistics products required to support the hardware installed in a ship. Additionally, ILOs offload unneeded logistics products for redistribution.

Integrated Logistics Overhaul (ILO) Team

Its responsibilities include the review, correction and update of the ship's existing configuration records and providing the ship with a completed integrated logistics package at EOA.

Integrated Logistics Review (ILR)

ILRs are conducted for shorter depot availabilities. ILRs concentrate on providing logistics products required to support newly installed hardware. Full performance of all ILO elements is completed over multiple ILR availabilities.

Integrated Logistics Support (ILS)

All drawings, training, technical manuals, test equipment, spare parts allowance, PMS documentation, and support equipment necessary to ensure the effective and economical support of systems and equipment for their life cycle.

Integrated Logistics Support Management Team (ILSMT)

Based upon a schedule promulgated by the SPM in the Integrated Logistics Support Management Plan (ILSMP), ILSMT meetings will begin at SOA. They will be scheduled for availabilities of five (5) months duration or longer or as determined by the SPM. For availabilities less than five (5) months, the SPM, may, at his discretion, schedule ILSMT meetings if the NSAs/IA ILS status report indicates that significant problems exist. ILSMT meetings provide the SPM an opportunity to identify deficiencies and take corrective action prior to EOA. The ILSMT consists of representatives from the SPM, NSA/IA, ILO/ILR, TYCOM, ISEA, and ship or other activities as designated by the SPM.

Intermediate Maintenance Activity (IMA)

The maintenance echelon consisting of Tenders, Repair Ships, and Shore Intermediate Maintenance Activities wherein Navy personnel with specialized facilities and training accomplish intermediate level repair work.

Interoperability Alteration

A modernization that:

1) Is an installation or modification of a system and/or software which provides information or data used to collect, display, evaluate, disseminate, or prosecute a track or target or used to plan the prosecution of a track or target. Some examples include but are not limited to the following: Weapons Systems, Combat Systems, Communication Systems, Intelligence Systems, Mission Planning Systems, Meteorological and Oceanographic (METOC) Systems, etc.
2) Is an installation or modification that impacts the certification, or changes an interface, to a system that meets the above criteria.
3) Is connected to or resides on the Integrated Ship Network System (aka, connects/loaded on IT-21 LAN).
4) Emits or receives Radio Frequency (RF) energy.
5) Has been designated a required shipboard system for support of an embarkable unit .

Inventory Control Point (ICP)

The organizational element within a system which is assigned responsibility for a system-wide direction and control of material. In a centralized system, the ICP may also perform the functions of a stock control activity.

Justification/Cost Form (JCF)

The JCF is the document used by the cognizant SPM to arrive at a management decision of whether or not to proceed with the development of a SHIPALT. The document in general will define the top level requirements and anticipated costs for a SHIPALT and may serve as the authorization to initiate SAR development. No SHIPALT development will be approved nor funding provided until a signed JCF exists.

Latest Acceptable Delivery Date (LADD)

The date, after which, the alteration cannot be completed within the time frame of the planned availability. This date is determined solely by the activity installing the alteration.

Level of Repair

The level of maintenance most likely to possess the necessary facilities and skill levels to achieve satisfactory repairs, i.e. depot, intermediate, or organizational level. Synonymous with maintenance level.

Liaison Action Record (LAR)

The Liaison Action Record is the formal documentation tool for the technical communications among Planning Yards, Naval Supervising Activities/Installing Activities, and NAVSEA when the technical communications is in regard to issued SHIPALT Records.

Life Cycle Manager (LCM)

The LCM is the headquarters or individual having technical and logistics responsibility for a system or equipment throughout its life cycle. The LCM plans and prepares alterations, including budgeting for funds required to acquire hardware, test and training equipment, new or modified technical manuals and PMS documentation, installation and checkout spares, MAMs and interim supply support.

List of Material (LOM)

Lists of Material are provided on all drawings. They list all material, equipment and assemblies required for one ship. Material lists are utilized for ordering material and for calculating weight and moment changes.

Locally Provided Material (LPM)

LPM is provided by the NSA. It may be requisitioned or procured from a commercial source of manufacture. It generally does not require logistics support. The NSA is responsible for full logistics support where it may be required. Material control and management are the responsibility of the NSA.

Local Stock Number (LSN)

A number assigned locally for tracking. These numbers should not be assigned to items of supply that qualify for the assignment of NSNs.

Logistics Element Manager (LEM)

The LEMs are responsible for developing and promulgating the policy and procedures necessary to ensure timely and adequate logistics support for a specific logistics element. These functions are largely centered in NAVSEA 04.

Logistics Review Process (LRP)

Performed at A-18 for all first-time installations of ACAT I, II, III or IV alterations. Chaired by NAVSEA 04L with assistance from activities directly involved in the planning and execution of SHIPALTs. During an LRP, an in-depth review of all SHIPALT applicable logistics will be conducted. The review is directed toward identifying all logistics that will be available by SOA as well as potential deficiencies that may not be corrected by SOA.

Logistically Significant Material (LSM)

LSM is defined as any material which requires any of the following ILS elements:

a. On Board Repair Parts, including parts required for organizational level maintenance and installation and checkout spares.
b. Technical manuals, including manuals required at any maintenance level.
c. Navy Training Plan (NTP), including any material requiring new or revised training courses for personnel at any maintenance level.
d. Planned Maintenance System Documentation, including all new or revised PMS Documentation.
e. Test Equipment, including GPTE and SPTE.

All repairable items are included under the above definition. Any item which requires logistics support is logistically significant. Logistics significant material is generally CPM.

Long Lead Time Material (LLTM)

LLTM can be CPM or LPM. It has a manufacturing lead time of six months or greater. Advance planning funds are normally provided to the NSA/installing activity in conjunction with the Advance Planning Letter which assigns procurement responsibility.

Machinery Alteration (MACHALT) Program

A kit concept which enables HM&E changes to be accomplished in an expeditious manner, eliminating these changes from the formal SHIPALT process. A MACHALT is defined as a planned change, modification, or alteration to any HM&E equipment in service (shipboard or shore activities) when it has been determined by the MACHALT Configuration Control Board (CCB) that the alteration or modification meets all of the following conditions:

* Can be accomplished without changing an interface external to the equipment or system.
* Is a modification made within the equipment boundary or is a direct replacement of the original equipment design
*. Can be accomplished without the ship being in an industrial activity.
* Will be accomplished individually and not conjunctively with a SHIPALT or Other MACHALT.

Maintenance Assistance Modules (MAMs)

Remove and replace items used for diagnostic purposes in performing corrective maintenance on an equipment.

Material Identification (MTLID)

An NSN, TNICN, or nomenclature used to uniquely identify an item of material.

Material Representative (MATREP)

The Navy activity designated to stage material for Title "K" SHIPALTs and MACHALTs. Functions of the MATREP include requisition, receipt, inspection, storage and issue of staged material. MATREPs for Title "K" SHIPALTs are designated at Cheatham Annex for Atlantic Fleet installations and at Long Beach for Pacific Fleet installations. NAVSSES, Philadelphia serves as MATREP for MACHALTs.

Maintenance and Material Management (3-M) System

A management system for maintenance and maintenance support to enhance equipment operational readiness. OPNAVINST 4790.4 prescribes policies and procedures for the installation and operation of this system on board ships.

Maintenance Levels

The three levels of ship maintenance are:

- **Organizational Maintenance** – Maintenance which is the responsibility of and performed by the using organization on its assigned equipment. Its phases normally consist of inspecting, servicing, lubricating, adjusting, and replacing parts, minor assemblies, and subassemblies.
- **Intermediate Maintenance** – Maintenance which is the responsibility of and performed by designated maintenance activities for direct support of using organizations. Its phases normally consist of calibration, repair, or replacement of damaged or unserviceable parts, components, or assemblies; the emergency manufacture of nonavailable parts; and the provision of technical assistance to using organizations.
- **Depot Maintenance** – Maintenance performed on material requiring major overhaul or a complete rebuild of parts, subassemblies and end items, including the manufacture of parts, modifications, testing, and reclamation. Depot maintenance serves to support lower echelons of maintenance by providing technical assistance and performing

maintenance beyond their responsibility. Depot maintenance provides stocks of serviceable equipment by using more extensive facilities for repair than are available in lower level maintenance activities.

Military Improvement

Improvements changing a ship's military or operational characteristics, qualities, and/or features resulting in increased capabilities to perform its approved mission and tasks.

Military Improvement Plan (MIP)

A priority listing of desired and approved changes in the military characteristics of ships. It is promulgated by CNO for guidance in programming, budgeting, monitoring design work, and authorizing procurement and installations during particular fiscal years. It lists, in order of priority, the applicable project number, brief description, types of ships in which installation is planned, and other pertinent information.

National Item Control Number (NICN)

A NICN is a 13 character identification number which is assigned by an ICP or other Navy item manager to control an item which has not yet been (or will not be) assigned an NSN.

National Item Identification Number (NIIN)

Last nine (9) digits of the NSN.

National Stock Number (NSN)

An NSN is a 13 digit stock number assigned by the Defense Logistics Service Center (DLSC), Battle Creek, MI, to identify an item of material in the federal supply distribution system. It consists of a 4-digit Federal Supply Class (FSC) and a 9-digit National Item Identification Number (NIIN).

Naval Supervising Activity (NSA)

Single Naval Activity charged with the oversight responsibility of work being accomplished on U.S. Naval ships during any type of Chief of Naval Operations (CNO) scheduled availability. The NSA is responsible for controlling Alteration Installation Team (AIT) access to ships at the industrial activities under their cognizance. Further, NSA's are responsible for ensuring that the AIT's intended work is authorized and that the AITs are incompliance with this specification. For AIT work conducted during periods in which the naval shipyards or Supervisor of Shipbuiliding, Converision and Repair (SUPSHIP) offices do not have oversight, NSA functions concerning the oversight of AIT work, including gate keeping, production coordination and quality assurance functions will be the responsibility of the designated Regional Maintenance and Modernization Coordination Office (RMMCO) (where stood up) or the Type Commander (TYCOM). Neither the AIT tasking activity, the team supervisor or the AIT is the NSA for the purpose of technical specification 9090-310C.

NAVSEA Earned Variance Account

An account which accumulates the proceeds resulting from alterations or support programs which cost less than the amounts programmed. In accordance with CNO (N43), policy all proceeds from cost decreases must be transferred to the NAVSEA Earned Variance Account and not used for emergent or additional scope of work. To the degree that funds are available, this account will finance the additional cost of accomplishment or alterations in excess of their programmed amount. NAVSEA has responsibility for the management of the NAVSEA Earned Variance Account in consultation with CNO Warfare Sponsors.

Navy Data Environment – Navy Modernization (NDE-NM)

The objective of the NAVSEA Data Environment (NDE) project is to develop a Data Environment that supports Navy modernization, logistics/configuration and maintenance

functional processes. This environment will consist of client applications, business objects and an enterprise data model that supports those applications.

Navy Stock Fund (NSF)

A revolving or working fund which acquires, holds and issues inventories. When an item is issued, the customer is charged for the material and the stock fund is reimbursed.

.**Navy Item Control Number (NICN)**

An identification number assigned by NAVICP to identify an item of supply pending an assignment of a National Item Identification Number (NIIN) by DLSC.

Navy Working Capitol Fund (NWCF)

A revolving account to which reimbursement and collections replenish funds for reuse.

Nuclear Alteration (NUCALT)

Alterations to those portions of Naval Nuclear Propulsion Plants and Facilities under the cognizance of the Director Naval Nuclear Propulsion Program (NAVSEA 08).

Ordnance Alteration (ORDALT)

A change effected on naval ordnance equipment or their computer programs by the addition, deletion, rework, or replacement of parts in assemblies or equipment, or by a change in assembly procedures.

Overhauls

A major ship availability established for general maintenance and alterations at a naval shipyard or other shore-based depot-level repair activity. During this period, the ship generally undergoes the installation of alterations and modifications to update its capabilities and large-scale maintenance that cannot be undertaken at other times. The categories of overhauls are:

- **Baseline Overhaul (BOH)** – An overhaul that is designed to restore a ship's systems, subsystems, and equipment to a baseline condition before the ship is placed on an Engineered Operating Cycle (EOC). The intent of the BOH is to provide an extensive overhaul that, together with a well engineered and executed maintenance program, will enable the ship to carry out its mission throughout the operating cycle.
- **Regular Overhaul (ROH)** – An availability for the accomplishment of general repairs and alterations at a naval shipyard, private shipyard, or other shore-based repair activity, normally scheduled in advance and in accordance with an established cycle.
- **Complex Overhaul (COH)** – An overhaul that, due to cost, duration, manpower constraints, or the complexity or interrelationship of the various ship subsystems affected by the overhaul work packages, requires coordination and extensive management of both the planning and industrial phases of the overhaul in order to provide a high level of confidence that the overhaul can be satisfactorily completed.
- **Integrated Logistic Overhaul (ILO)** – The work involved in improving the material readiness of a ship by bringing storeroom repair part inventories up to the level prescribed in updated allowance and load lists or to the endurance level prescribed by appropriate fleet authority. Attainment of this broad objective requires the successful conduct of many separate but related actions.

Planned Installation Report (PIR)

A PIR replaces the Summary List of Configuration Changes (SLCC). PIR is used by the Planning Yard to report planned ship alterations (i.e. COP) to the CDM. When the COP reporting cycle is complete, the composite PIR Report is forwarded to the NSA/IA to be used to verify and report the alteration as being installed as planned (or cancelled) and to supply certain

information (i.e. equipment serial numbers) unknown by the Planning Yard at the time of COP submission.

Planned Program Requirement (PPR)

Planned Program Requirements are established for programmed SHIPALTs by the Program Requirements Interface System Module (PRISM) for NAVICP cognizance material requirements in FMPMIS.

Planned Maintenance System (PMS)

PMS provides each ship with a simple standard means for planning, scheduling, controlling, and performing planned (preventive) maintenance on all equipment. It also includes inactive Equipment Maintenance. PMS documentation consists of:

- Maintenance Requirement Cards (MRCs), which provide detailed step-by step procedures detailing how and when each maintenance action is to be done
- Maintenance Index Pages (MIPs), which are an index of all MRCs for a specific system or equipment
  1. Lists of Effective Pages (LOEPs), which are lists of all MIPs for a specific ship
  2. PMS schedules
  3. Feedback Reports

Procurement Leadtime (PLT)

The time, in months, to procure an item of material of material, beginning with initiation of procurement action and ending with date of delivery. It normally includes administrative processing, production and delivery of items.

Program Remarks (PRRMKS)

A three (3) digit code in FMPMIS which, when entered, provides supplemental information concerning the programming status of an alteration.

Proofing

A requirement identified in the Ship Alteration Record (SAR) to ascertain that the intended purpose of the alteration is satisfied and to identify any discrepancies. Proofing will determine whether immediate action must be initiated to correct deficiencies in the first-time alteration installation and in the alteration design package to preclude a repeat of the same problems on subsequent installations.

Proposed Military Improvement (PMI)

A proposed improvement which is intended to increase the ship's ability to perform its mission. PMIs are approved by CNO.

Proposed Survivability Improvement (PSI)

A proposed improvement which is intended to sustain the warfighting capability, as well as peacetime operations, of the Navy's surface ships. Proposed survivability alterations should support improvements in passive fire protection, firefighting, electromagnetic protection (EMP), shock, personnel protection, chemical/biological/radiological (CBR) warfare, damage control and carrier ASCM side protection. CNO is the approving authority for Proposed Survivability Improvements.

Proposed Technical Improvement (PTI)

A proposed improvement that is intended to improve crew/equipment safety, system reliability and maintainability, and efficiency of installed equipments. PTIs are approved by NAVSEA.

Provisioning Technical Documentation (PTD)

A listing of various types of data relating to a given system or equipment in a standardized format. PTD is supplied by the manufacturer and used for the identification, selection, determination of initial requirements and cataloging of support items to be procured through the provisioning process.

Purpose Code (PC)

Provides the owner of material with a means of identifying the purpose or reason for which an inventory balance is reserved. Used in FMPMIS by NAVICP.

Ready for Issue (RFI)

An item that is functionally operational and meets performance specifications. This item may be new, repaired or overhauled.

Report of Discrepancy (ROD)

A form (SF-364) issued by the NAVSEA Material Representative (MATREP) to the material issuing activity in order to report receipt of damaged material, incorrect material, or incorrect quantities.

Required Delivery Date (RDD)

A calendar date which specifies when material is actually required to be delivered to the requisitioner.

Reverse Liaison Action Record (RLAR)

RLARs are used by the Planning Yard to provide necessary technical information or a change to previously provided technical information or new requirements which may have an impact on on-going or near-term production work such that the NSA/IA can issue an immediate change. RLARs are also used by the SPM to reflect requirement changes or provide information to the Planning Yard.

Selected Record Drawings (SRD)

SRDs are a group of ships drawings specifically selected for their reference value which illustrate important features, systems and arrangements applicable to an individual ship. They are maintained current throughout the life of the ship.

Service Life Extension Program (SLEP)

A depot level program to extend the service life of a ship beyond that for which it was initially designed. Following SLEP, these ships will be maintained and modernized through normal overhaul procedures.

Ship Alteration (SHIPALT)

Any change in the hull, machinery, equipment, or fittings which involves change in design, materials, number, location, or relationship of the component parts of an assembly. SHIPALTs are classified by title, such as Title “D” alteration (see SHIPALT Titles).

Ship Alteration Material Summary (SAMS)

An automated report in FMPMIS which is a cumulative list of all related material on the Ship Alteration (SHIPALT) BOM for a given hull in a given FY.

SHIPALT Authorization Letter

A document produced by NAVSEA to provide program authorizations for the accomplishment of Ship Alterations (SHIPALTs). It is required to be issued in sufficient time to be received by action addresses 360 days in advance of the scheduled start date of the specified availability.

The SHIPALT Authorization Letter does not authorize commencement of work or authority to commit or obligate funds; only approved funding documents constitute authority to commit or obligate funds.

Ship Alteration Record (SAR)

Form NAVSEA 4720/5 is prepared in accordance with Technical Specification 9090-500. It constitutes a consolidated record of pertinent management and technical information, ship application, and material requirements. It includes or references technical data developed previously in the alteration development process. It is the technical approval document for a SHIPALT.

Ship Availability Planning and Engineeering Center (SHAPEC)

The Ship Availability Planning and Engineering Center (SHAPEC) was established by the Naval Sea Systems Command to:

- Streamline the process for determining technical, planning and material requirements for ship work.
- Standardize planning products, practices and procedures.
- Ensure sharing and reuse of planning products by both public and private sector Customers for depot and intermediate level ship work and development of appropriate metrics.
- Provide libraries of reusable planning products for use by all ship maintenance activities.

Ship Bill of Material (SBM)

Contains all information pertinent to material requirements for alterations on a specific ship in FMPMIS.

Ship Bill of Material Best Estimated Delivery Date Remarks (SBMBEDDRMK)

Used by material managers to indicate in FMPMIS that there is a problem in allocating assets for a given hull in a given FY.

Ship Budget or Program Control Totals

Individual totals established during the semi-annual review for each planned ship availability or program. Funds provided in these totals are made available to the SPM for the purpose of within-scope cost increases for the ship on which the totals have been established. All funds not required for within scope cost increases are not available for emergent or additional scope of work, but are normally transferred to the NAVSEA Earned Variance Account.

SHIPALT Installation Drawing (SID)

A single, complete package of drawings required to accomplish an alteration on a given ship. SIDs are prepared by the Planning Yard.

SHIPALT Titles

- **Title "D" Alteration** – An alteration equivalent to a repair, approved by NAVSEA. It may require Centrally Provided Material (CPM) and Integrated Logistics Support (ILS) but cannot contain Headquarters CPM (HCPM). Title "D" ship alterations are authorized for accomplishment by the TYCOM.
- **Title "F" Alteration** – An alteration equivalent to a repair and formally approved by NAVSEA. It is accomplished by Forces Afloat and does not require CPM. Title "F" alterations may only be authorized for accomplishment by TYCOMs.
- **Title "K" Alteration** – An alteration authorized for accomplishment through FMP and usually requiring Headquarters Centrally Provided Material (HCPM). It is accomplished by industrial activities and approved by CNO through the FMP process. It may change the military, survivability, and technical characteristics of the ship or modify a nuclear propulsion plant.
- **Title "K-P" Alteration** – An alteration that changes the military or technical characteristics of a ship and can involve installations of centrally provided material and

headquarters centrally provided material but is within AIT or Forces Afloat capability for installation. All required material and documentation are assembled by a packaging activity as designated by NAVSEA. Title ‘ K-P’ SHIPALT Package preparation and its accomplishment are authorized by NAVSEA.

Ships Characteristics Information Board (SCIB)

An advisory board to the CNO Executive Board (CEB) on matters relating to the military, survivability and technical changes to the characteristics of U.S. Navy ships and craft.

Ships Configuration and Logistics Support Information System (SCLSIS)

The official Navy method of gathering and maintaining configuration and logistics information as it pertains to U.S. Navy ships. The system incorporates and interfaces numerous Command functions and requirements of a ship during her life cycle during both the operational and the availability cycles. One activity, the Configuration Data Manager (CDM), designated by NAVSEA, is assigned the responsibility of maintaining the integrity and timeliness of the SCLSI and the ships configuration and logistics records.

Ship’s Drawing Index (SDI)

A listing of all drawings applicable to the ship including reactor plant drawings.

Ship’s Portable Electrical/Electronics Test Equipment Requirements List (SPETERL)

A document representing Portable Electrical/Electronics Test Equipment requirements for a ship.

Ship Program Manager (SPM)

The NAVSEA organization responsible for management of ships’ acquisition, overhaul or repair.

Ship Selected Records (SSR)

The documentation providing critical information concerning the maintenance, operation, and configuration of a ship. SSR consists of the following categories: Selected Record Drawings, which illustrate important features, systems, and arrangements applicable to an individual ship; Selected Record Data, which describes arrangements, equipment, systems and procedures essential to the operation and safety of the ship; and Allowance Lists.

Short Leadtime Material (SLTM)

SLTM is material with a procurement leadtime of six (6) months or less.

Shipboard Non-Tactical ADP Program (SNAP)

SNAP constitutes the suite of hardware and software installed aboard U.S. Navy ships which is used to manage non-tactical information (i.e. maintenance repair part inventory, configuration, applicable technical manuals, etc.)

Special Program Requirements (SPRs)

SPRs are established by the Defense Logistics Agency field activities for forecasting requirements for items required to support special program material which is of a non-repetitive nature and cannot be forecasted by the ICP based on demand data and which have the likelihood of materializing and resulting in eventual submission of requisitions.

SHIPALT and MACHALT Staged Alteration Material Program (STAMP)

A staging program designed to ensure that the storage and issue of Title “K” and “D” SHIPALT and MACHALT material is assembled into total ship class requirements and that material is available, inspected and logistically supported at the time of scheduled availability. Staging includes requisition, receipt, inspection, storage, inventory and issue of material.

STAMP Management Information System (STAMMIS)

An ad hoc subprogram of FMPMIS used to manage staged alteration material at the ship level.

Standard Accounting and Reporting System (STARS)

An automated information system which establishes controls over funds expenditures, breaking down the FMP Installation Budget into major subcategories (Project Directives) and allocating obligational authority based on the approved budget for each subcategory.

Standard Material

Standard material is stocked by the Defense Supply System and designated with a National Stock Number.

Supply Support

The availability of organizational, intermediate, and depot level repair parts, installation and checkout spares, and insurance spares as well as replenishment spares placed in the Supply System to replace as they fail or are consumed. Supply Support includes technical documentation which provides the maintenance philosophy for the end item equipment and identifies the parts required to support the maintenance philosophy.

Support and Test Equipment

All equipment required to make a system, support system, sub-system, or end item of equipment operational in its intended environment. Support equipment includes portable or transportable devices needed to disassemble, assemble, transport, or adjust systems or equipment. Test equipment consists of any device used to measure, calibrate gauge, test, inspect, diagnose, or otherwise examine materials, supplies, and equipment to determine compliance with requirements established in technical documentation.

Technical Improvement

Any improvements to a ship which result in a change to improve the safety of personnel and installed equipments or systems and provide increased reliability, maintainability, and efficiency of installed equipments or systems.

Technical Manuals (TMs)

TMs contain the information which the system or equipment user needs in order to operate and maintain the hardware as part of the ship's operational mission. A TM is the data interface between the hardware designer and the hardware user, containing operating instructions, troubleshooting and repair procedures.

Technical Support

Engineering or technical assistance provided to achieve a specified goal.

Temporary Tracking Material Identification Numbers (TTMIDs)

TTMIDs are assigned by the Ship's Program Managers (SPMs) when a National Stock Number (NSN) does not exist for a material item. This number consists of "HH" in the cog field, specific user ID, date entered, and a unique five digit, sequentially assigned number.

Total Procurement Leadtime (TPLT)

Equals manufacturing leadtime plus administrative leadtime.

Type Commander Alteration Kit (TYKIT)

Used for Submarine Force TYCOMs. A program managed and funded by TYCOMs to facilitate installation of selected Title "D" and "F" SHIPALTs and AER items by Forces Afloat through centralized material identification, procurement, prefabrication and kitting.

Type Commander Status (TYST)

The Type Commanders official status of a Title "D" or "F" SHIPALT. The TYCOM indicates in FMPMIS a status for Title "K" alterations. However, NAVSEA's input for these alterations are considered official.

Unprogrammed Alteration

An alteration not budgeted for accomplishment under one of the fiscal years in the FMP.

Verification Shipcheck

A shipcheck to verify the content of drawings and other documents developed for the overhaul to improve the design integrity of SHIPALT plans. The Verification Shipcheck is the responsibility of the designated design agent.

Weapon Systems File (WSF)

The Weapon Systems File is a computerized data base maintained by NAVICP at Mechanicsburg, PA. The WSF supplies the following information:

a. Technical characteristics of equipment in the Navy inventory requiring supply Support.
b. Data showing maintenance repair parts for a given piece of equipment.
c. Codes reflecting maintenance philosophy (e.g, repair or replace), and other technical information about individual parts.

ACRONYMS

3-M
Maintenance and Material Management

A
Availability

A
Start Of Availability

A&I
Alteration and Improvement

AAC
Acquisition Advice Code

AAP
Allowance Appendix Page

ACAT
Acquisition Category

ACO
Administrative Contracting Officer

ACP
Allowance Control Panel

ADP
Automated Data Processing

AEL
Allowance Equipage List

AER
Alteration Equivalent to Repair

AG
Activity Group

AIPS
Alteration Installation Planning System

AIS
Automated Information System

AIT
Alteration Installation Team

AMA
Acquisition Management Activity

AML
Alteration Material List

AMP-FCO
Alteration Management Planning-Field Coordination Office

AMT
Amalgamated Military and Technical Improvement Plan

AP
Advance Planning

APL
Advance Planning Letter

APL
Allowance Parts List

APN
Aircraft Procurement, Navy

AR
Alteration Request

ARG
Amphibious Ready Group

ASC
Alteration Status Code

ASCM
Anti-Ship Capable Missile

ASI
Automated Shore Interface

ASN
Assistant Secretary of the Navy

ASN(RDA)
Assistant Secretary of the Navy (Research, Development and Acquisition)

ASW
Anti-Submarine Warfare

ATE
Automatic Test Equipment

ATR
Above Threshold Reprogramming

AUTODOC
Automated Document Processing System

Auto-MCMAR
Automated Monthly COSAL Maintenance Action Report

AVC
Alteration Verification Conference

AWP
Availability Work Package

BEDD
Best Estimated Delivery Date

BEDDRMKS
Best Estimated Delivery Date Remarks

BFI
Battle Force Interoperability

BFIT
Battle Force Integration Test

BG
Battle Group

BITE
Built-In Test Equipment

BLI
Budget Line Item

BOM
Bill Of Material

BTR
Below Threshold Reprogramming

C&F
Cost and Feasibility

C4/ISR
Command, Control, Communications, Computers/Intelligence Surveillance and Reconnaissance

C4/ISRT
Command, Control, Communications, Computers/Intelligence Surveillance, Reconnaissance and Targeting

CALSTD
Calibration Standard

CASREP
Casualty Report

CBM
Condition-Based Maintenance

CBR
Chemical/Biological/Radiological

CCB
Configuration Control Board

CCBD
Configuration Control Board Directive

CCS
Combat Control System

CD
Compact Disc

CDM
Configuration Data Manager

CDMD-OA
Configuration Data Managers Database-Open Architecture

CD-ROM
Compact Disk-Read Only Memory

CFE
Contractor Furnished Equipment

CFM
Contractor Furnished Material

CHENG
Chief Engineer

CI
Configuration Item

CINC
Commander In Chief

CINCLANTFLT
Commander in Chief U.S. Atlantic Fleet

CINCPACFLT
Commander in Chief U.S. Pacific Fleet

CM
Configuration Management

CMP
Class Maintenance Plan

CNET
Chief of Naval Education and Training

CNO
Chief of Naval Operations

COH
Complex Overhaul

COMNAVAIR
Commander, Naval Air System Command

COMNAVAIRLANT
Commander, Naval Air Force, U.S. Atlantic Fleet

COMNAVAIRPAC
Commander, Naval Air Force, U.S. Pacific Fleet

COMNAVSEASYSCOM
Commander, Naval Sea Systems Command

COMNAVSURFLANT
Commander, Naval Surface Force, U.S. Atlantic Fleet

COMNAVSURFPAC
Commander, Naval Surface Force, U.S. Pacific Fleet

COMSPAWAR
Commander, Space and Naval Warfare Systems Command

COMSUBLANT
Commander, Submarine Force, U.S. Atlantic Fleet

COMSUBPAC
Commander, Submarine Force, U.S. Pacific Fleet

CONUS
Continental United States

COP
Configuration Overhaul Planning

COSAL
Coordinated Shipboard Allowance List

COTS
Commercial Off-The-Shelf

CPAM
CNO Program Analysis Memorandum

CPM
Centrally Provided Material

CQR
Configuration Quality Review

CRA
Continuing Resolution Authority

CRL
Calibration Requirements List

CS
Combat System

CSA
Configuration Status Accounting

CSE
Combat Systems Engineer

CSMP
Current Ship Maintenance Project

D
Depot

D
Deployment

DA
Design Agent

DAASC
Defense Automated Addressing Service Center

DAPS
Defense Automated Printing Service

DART
Detection, Action, Response Technique

DBR
Database Reconciliation

DCAA
Defense Contract Audit Agency

DCMS
Director, Communications Security Material System

DFS
Departure From Specification

DIRSSP
Director, Strategic Systems Programs

DLA
Defense Logistics Agency

DMP
Depot Modernization Period

DoD
Department of Defense

DoDAAC
Department of Defense Activity Address Code

DON
Department Of Navy

DSA
Design Services Allocation

DSC
Defense Supply Center

DSCP
Defense Supply Center Philadelphia

DWS
Defensive Weapons System

EA
Engineering Agent

EC
Engineering Change

EC
Escrow Change

ECC
Electronic Configuration Change

ECO
Engineering Change Order

ECP
Engineering Change Proposal

ECSE
Engineering Control System Equipment

ED
Engineering Directorate

EDD
Estimated Delivery Date

EDFP
Engineering Data For Provisioning

EFR
Equipment Facility Requirements

EIB

Engineering Information Bulletin

EID
Estimated Issue Date

EMD
Engineering and Manufacturing Development

EMP
Electromagnetic Protection

EOA
End Of Availability

EOI
End Of Installation

ERDA-DoD
Energy Research and Development Administration-Department of Defense

ERP
Extended Refit Period

ETD
Effective Transfer Date

ETV
Engineered Time Value

FAD
Financial Accounting Document

FAR
FCIP Activity Report

FAR
Federal Acquisition Regulation

FASP
Forces Afloat Software Package

FC
Field Change

FCA
Functional Configuration Audit

FCB
Field Change Bulletin

FD
Funding Document

FCIP
Field Change Implementation Program

FIN
Functional Identification Number

FISC
Fleet and Industrial Supply Center

FL
Field Level

FLTCINC
Fleet Commander in Chief

FLTMOD
Fleet Modernization

FMB
Financial Management of Budgets

FMP
Fleet Modernization Program

FMPMIS
Fleet Modernization Program Management Information System

FMS
Foreign Military Sales

FPO
Fixed Price Offer

FRE
Final Review Estimate

FSS
Federal Supply System

FTSC
Fleet Technical Support Center

FTSCPAC
Fleet Technical Support Center Pacific

FY
Fiscal Year

FYDP
Future Year Defense Plan

FYPR
Fiscal Year Programmed

GBL
Government Bill of Lading

GDAPL
General Distribution Allowance Parts List

GFE
Government Furnished Equipment

GFM
Government Furnished Material

GIM
Gaining Inventory Manager

GOTS
Government Off-The-Shelf

GPETE
General Purpose Electronic Test Equipment

GSA
General Services Administration

GUI
Graphical User Interface

HCM
Headquarters Claimant Module

HCPM
Headquarters Centrally Provided Material

HEDRS
Hull Equipment Data Research System

HM&E
Hull, Mechanical and Electrical

HSC
Hardware Systems Command

HSC
Hierarchical Structure Code

HVAC
Heating, Ventilation and Air Conditioning

I
Intermediate

I&C
Installation and Checkout

IA
Installing Activity

IAFM
Installing Activity Furnished Material

IAPM
Installing Activity Provided Material

IBOM
Alteration Bill of Material Source Code

ICAPS
Interactive Computer-Aided Provisioning System

ICD
Interface Control Drawing

ICMP
Integrated Class Maintenance Plan

ICP
Instrumentation Calibration Procedure

ICP
Inventory Control Point

ICW
Interactive Courseware

IDEA
Integrated Design Engineering Activity

IDS
Interface Design Specification

ILO
Integrated Logistics Overhaul

ILOLANT
ILO Atlantic Fleet

ILR
Integrated Logistics Review

ILS
Integrated Logistics Support

ILSMT
Integrated Logistics Support Management Team

ILSP
Integrated Logistics Support Plan

IMA
Intermediate Maintenance Activity

IMI
Interactive Multimedia Instruction

IMM
Integrated Material Manager

IMM/MS
Integrated Material Manager/Military Service

IOC
Initial Operational Capability

IR
Installation Report

IRPOD
Individual Repair Part Ordering Data

ISC
Installation Status Code

ISEA
In-Service Engineering Agent

ISIC
Immediate Superior In Command

ISIL
Interim Support Items List

ISS
Interim Supply Support

ITP
Index of Technical Publications

IWAR
Integrated Warfare Architecture Review

JCCB
Joint Configuration Control Board

JCCBD
Joint Configuration Control Board Directive

JCF
Justification/Cost Form

JITS
Just-in-Time Support

LADD
Latest Acceptable Delivery Date

LAMPS
Light Airborne Multipurpose System

LANT
Atlantic Fleet

LAR
Liaison Action Record

LASE
Logistic Asset Support Estimate

LCM
Life Cycle Manager

LCRS-FMP
Life Cycle Requirement System-Fleet Modernization Program

LEM
Logistics Element Manager

LLTM
Long Lead Time Material

LOEP
List Of Effective Pages

LOM
List Of Material

LORA
Level Of Repair Analysis

LPM
Locally Provided Material

LRP
Logistics Review Process

LSM
Logistically Significant Material

LSSC
Logistics Support Status Code

MACHALT
Machinery Alteration

MAM
Maintenance Assistance Module

MDS
Maintenance Data System

MDS
Miscellaneous Documentation Support

METCAL
Metrology Calibration

MFR
Memorandum For the Record

MGT
Marine Gas Turbine

MGTE
Marine Gas Turbine Equipment

MILSPEC
Military Specification

MILSTRAP
Military Standard Transaction Reporting and Accounting Procedures

MILSTRIP
Military Standard Requisitioning and Issue Procedure

MIP
Maintenance Index Page

MIS
Management Information System

MJC
Master Job Catalog

MOA
Memorandum Of Agreement

MP&T
Manpower, Personnel and Training

MPO
MACHALT Program Office

MRC
Maintenance Requirements Card

MS
Maintenance Standard

MSC
Military Sealift Command

MSD
Material Support Date

MTIS
Material Turned Into Stores

MTLID
Material Identification

NAVAIR
Naval Air Systems Command

NAVCOMPT
Office of the Comptroller of the Navy

NAVGARD
Navy-Coast Guard

NAVICP
Naval Inventory Control Point

NAVICP-M
Naval Inventory Control Point-Mechanicsburg

NAVICP-P
Naval Inventory Control Point-Philadelphia

NAVSEA
Naval Sea Systems Command

NAVSEALOGCEN
Naval Sea Logistics Center

NAVSUP
Naval Supply Systems Command

NBFA
Navy Battle Force Alignment

NDE
Navy Data Environment

NDE-NM
Navy Data Environment-Navy Modernization

SDE-SIDE
NDE-SPAWAR Installation Database Environment

NDI
Non-Developmental Item

NFAF
Naval Fleet Auxiliary Force

NLT
No Later Than

NN
Newport News

NPA
Naval Planning Activity

NSA
Naval Supervising Activity

NSDSA
Naval Sea Data Support Activity

NSLC
Naval Sea Logistics Center

NSN
National Stock Number

NSWCCD-SSES
Naval Surface Warfare Center, Carderock Division-Ship Systems Engineering Station

NSY
Naval Shipyard

NTSP
Navy Training System Plan

NUWC
Naval Undersea Warfare Center

NWCF
Navy Working Capital Fund

O
Organizational

O&MN
Operation and Maintenance, Navy

OMB
Office of Management and Budget

OBRP
On Board Repair Part

OEM
Original Equipment Manufacturer

OPALT
Operational Alteration

OPEVAL
Operational Evaluation

OPN
Other Procurement, Navy

OPNAV
Chief of Naval Operations

OPTAR
Operating Target

ORDALT
Ordnance Alteration

OS
Ordnance Specification

OSA
Outfit Supply Activity

OSD
Office of the Secretary of Defense

OSI
Operating Space Item

OSR
On-Site Representative

OSS
Operational Sequencing System

OTP
Overhaul Training Plan

OWP
Overhaul Work Package

PA
Proposed Alteration

PAFOS
Provisioning, Allowance and Fitting Out Support

PAL
Preliminary Allowance List

PARM
Participating Manager

PARTS
Program Support Data Automated Reporting and Tracking System

PBL
Performance Based Logistics

PCA
Physical Configuration Audit

PCB
Printed Circuit Board

PCO
Procurement Contracting Officer

PD
Project Directive

PECP
Preliminary Engineering Change Proposal

PEO
Program Executive Officer

PHS&T
Packaging, Handling, Storage and Transportation

PIO
Provisioned Item Order

PIR
Preliminary Installation Report

PLT
Procurement Lead Time

PM
Preventive Maintenance

PM
Program Manager

PMA
Phased Maintenance Availability

PMF
Phased Maintenance Firm Fixed Price

PMI
Proposed Military Improvement

PMS
Planned Maintenance System

POA&M
Plan Of Action and Milestones

POC
Point Of Contact

POC
Preliminary Operational Capability

POM
Program Objectives Memorandum

PPBS
Planning, Programming and Budgeting System

PPR
Planned Program Requirement

PR
Program Review

PR
Procurement Request

PRC
Project Review Conference

PRE
Preliminary Review Estimate

PRISM
Program Requirements Interface System Module

PSA
Post Shakedown Availability

PSD
Program Support Data

PSI
Proposed Survivability Improvement

PSL
Program Support Line

PTD
Provisioning Technical Documentation

PTI
Proposed Technical Improvement

PY
Planning Yard

QA
Quality Assurance

QFD
Quarterly Forecast Demand

QOL
Quality Of Life

R&D
Research and Development

RAD
Revised Alternative Dataflow

RDD
Required Delivery Date

RDT&E
Research, Development, Test and Evaluation

REA
Request for Equitable Adjustment

RFI
Ready-For-Issue

RFM
Resource Financial Manager

RIC
Repairable Identification Code

RIC
Routing Identifier Code

RMMCO
Regional Maintenance and Modernization Coordination Office

ROC
Required Operational Capability

ROH
Regular Overhaul

RPPY
Reactor Plant Planning Yard

RRMP
Ready Resource Material Program

SAG
Sub-Activity Group

SAMS
Ship Alteration Material Summary

SAP
Security Assistance Program

SAR
Ship Alteration Record

SARP
Ship Alteration and Repair Package

SASDT
Ships and Aircraft Supplemental Data Tables

SBM
Ship Bill of Material

SCL
Standard Components List

SCLSI
Ship Configuration and Logistics Support Information

SCLSIS
Ship Configuration and Logistics Support Information System

SCN
Shipbuilding and Conversion, Navy

SDI
Ship Drawing Index

SDIF
Standard Data Interface Format

SDM
Ship Design Manager

SDR
Supply Demand Review

SDR
Supply Discrepancy Report

SFL
Separate Funding Line

SE
Support Equipment

SECDEF
Secretary of Defense

SECNAV
Secretary of Navy

SGCP
Shipboard Gage Calibration Program

SGML
Standard General Markup Language

SHAPEC
Ship Availability Planning and Engineering Center

SHIPALT
Ship Alteration

SID
SHIPALT Installation Drawing

SISCAL
Shipboard Instrumentation and Systems Calibration

SLTM
Short Lead Time Material

SMRR
Ship Modernization Requirements Review

SMS
SHIPALT Material System

SNAP
Shipboard Non-Tactical Automated Data Processing

SOA
Start Of Availability

SOMMTIP
Ship Overhaul, Modernization Manning and Training Information Program

SPALT
Strategic Systems Program Alteration

SPAWAR
Space and Naval Warfare Systems Command

SPETE
Special Purpose Electronic Test Equipment

SPETERL
Ship Portable Electrical/Electronic Test Equipment Requirements List

SPM
Ship Program Manager

SPR
Special Program Requirement

SRA
Selected Restricted Availability

SRD
Selected Record Drawing

SRF
Ship Repair Facility

SSA
Software Support Activity

SSR
Ship Selected Record

STARS
Standard Accounting and Reporting System

SUBSAFE
Submarine Safety

SUBMEPP
Submarine Maintenance, Engineering, Planning and Procurement

SUPSHIP
Supervisor of Shipbuilding, Conversion and Repair, USN

SYSCOM
Systems Command

TAB
Training Aid Booklet

TAC
Transportation Account Code

TAG
Technical Manual Analysis Group

TAMS
Type Commander Alteration Management System

TAMS
Test And Monitoring System

TD
Technical Directorate

TD
Technical Directive

TD
Training Device

TDMIS
Technical Data Management Information System

TDP
Technical Data Package

TE
Test Equipment

TECHEVAL
Technical Evaluation

TEMPALT
Temporary Alteration

TI
Technical Instruction

TIB
Technical Information Bulletin

TIP
Technical Improvement Plan

TM
Technical Manual

TMA
Top Management Attention

TMCR
Technical Manual Contract Requirement

TMDE
Test, Measurement and Diagnostic Equipment

TMI
Top Management Initiative

TMIN
Technical Manual Identification Number

TMIN-R
Technical Manual Identification Number Request

TMMA
Technical Manual Maintenance Activity

TMMP
Technical Manual Management Program

TMSR
Technical Manual Seatask Requirement

TNICN
Temporary Navy Item Control Number

TOB
Technical Operating Budget

TP
Teleprocessed

TPS
Test Program Set

TRIREFFAC
TRIDENT Refit Facility

TRPPM
Training Planning Process Methodology

TSA
Technical Support Activity

TTE
Technical Training Equipment

TTMID
Temporary Tracking Material Identification

TYCOM
Type Commander

TYKIT
Type Commander Kit

UIC
Unit Identification Code

UMMIPS
Uniform Material Movement and Issue Priority System

UNREP
Underway Replenishment

USCG
United States Coast Guard

VA
Veterans Administration

VALAID
Validation Aid

WAM
Warfare Area Manager

WDC
Work Definition Conference

WIP
Warfighting Improvement Plan

WIPE
Warfighting Improvement Plan Engineering

WPIC
Work Package Integration Conference

WPN
Weapons Procurement, Navy

WPNSTA
Weapon Station

WS
Weapons Specification

WSESRB
Weapons System Explosives Safety Review Board

WSF
Weapon Systems File