Chapter 14 – Integrated Logistics Support (ILS)

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References

(a) DoD Directive 5000.01, The Defense Acquisition System

(b) DoDINST 5000.02, Operation of the Defense Acquisition System

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

(d) SECNAVINST 4105.1C, Independent Logistics Assessment (ILA) and Certification Requirements

(e) TechAmerica Standard GEIA-STD-0007, Logistics Product Data

(f) NAVSEAINST 4790.1B, Expanded Ship Work Breakdown Structure (ESWBS) Hierarchal Structure Codes (HSC) for Ships, Ship Systems, and Surface Combatant Systems

(g) OPNAVINST 1500.76C, Naval Training System Requirements, Acquisition, and Management

(h) Provisioning, Allowance, and Fitting Out Support (PAFOS) Manual

(i) NAVSEA Program Manager's Guide

(j) MIL-HDBK-502, DoD Handbook for Product Support Analysis

(k) MIL-STD-31000A, Technical Data Packages

(l) OPNAVINST 4441.12D, Retail Supply Support of Naval Activities and Operating Forces

(m) DoD 4140.01, DoD Supply Chain Materiel Management Procedures

(n) NAVSEAINST 4160.3B, Technical Manual Management Program

(o) NAVSEA S0005-AA-PRO-010/TMMP, Technical Manual Management Program Operations and Procedures

(p) NAVSEAINST 4130.12B, Configuration Management Policy and Guidance

(q) MIL-HDBK-61A, Configuration Management Guidance

(r) NAVSEA Technical Specification (NSTS) 9090-700 (series)

(s) SL720-AA-MAN-010/020, NAVSEA Fleet Modernization Program Operations and Management Manual

(t) Surface Ships and Carriers Entitled Process (EP) for Modernization Management and Operations Manual (SL720-AA-MAN-030)

(u) ASN (RDA) Diminishing Manufacturing Sources and Material Shortages (DMSMS) Management Guidance Memo of 27 Jan 05

(v) DASN(L) DMSMS Management Plan Guidance

Chapter 14 – Integrated Logistics Support (ILS)

14.1 Overview

This chapter is an overview of the logistics process used by NAVSEA for the acquisition and life cycle management of ships, systems, and equipment. SUPSHIPs, under prior guidance, played a significant, hands-on role in the logistics process. However, with the reorganization and restructuring of the SUPSHIPs, the transfer of repair-oriented SUPSHIPs to the Fleet to become Regional Maintenance Centers (RMCs) and the transfer of material functions to NAVSUP Fleet Industrial Supply Centers (FISCs), the SUPSHIP logistics support role has evolved into one of primarily oversight rather than participation. NAVSEA and NAVSUP solidified this major evolution via a Memorandum of Agreement (MOA), Appendix 14-A, making the transfer effective in June 2003.

14.2 Purpose

In the construction of a new ship class, the acquisition of systems and equipment to be installed is tailored to the ship design and other top level requirements and operational capabilities. Most Integrated Logistics Support (ILS) policy, guidance, and directives are written generally in this context for the acquisition of new ships, systems, or equipment to meet a specific mission requirement. Chief of Naval Operations (CNO) requirements state that new systems or equipment will not be installed unless the required logistics support is in place.

ILS for DoN programs is defined as a composite of all support considerations necessary to ensure effective and economical support for the life cycle of ships, systems, and equipment. In this broad context, ILS is a disciplined, unified, and interactive approach for the management of technical activities necessary to:

- develop support requirements consistent with the design and other requirements
- integrate these considerations into the design
- provide the required support during the system or equipment life cycle at minimum cost

The fundamental objective of ILS is to provide life cycle support. To achieve this objective, a disciplined process must be followed where design engineering, logistics engineering, and planning, programming, and budgeting activities are effectively integrated. Actual integration of logistics considerations into NAVSEA acquisitions requires the combined efforts of the design community, acquisition Program Managers, and those organizations responsible for formulating and executing the budget.

For the purposes of this chapter, the title (i.e., Project Manager, Assistant Project Manager for Logistics) of an individual responsible for the logistics support of a system or equipment is interchangeable with the term "ILS Manager" (ILSM).

14.3 Policy and Responsibilities

ILS policy guidance is contained in DoD Directive 5000.01, reference (a), DoDINST 5000.02, reference (b), SECNAVINST 5000.2E, reference (c), and SECNAVINST 4105.1C, reference (d).

It is the policy of NAVSEA to plan, budget, design, acquire, and support end items to optimize and (is a word missing here?) unit design and logistics activities. To this end, NAVSEA Program Managers must implement procedures that will integrate logistics planning and design actions. The ILS requirements for each system or equipment acquisition must be compatible with individual ship ILS requirements to ensure that ILS documentation reflects the ship's current configuration.

Program Managers (PMs), life cycle managers for operational systems and equipment, and other designated managers are responsible for total logistics development for assigned programs. These managers may be resident in Direct Reporting Program Managers (DRPMs), Program Executive Offices (PEOs), NAVSEA 05, or other designated NAVSEA codes.

For new ship acquisition, a task group manager for logistics is assigned to assist the Program Manager as an active participant in ship design decisions to ensure that logistics are adequately procured. Similarly, an ILSM (ILS Manager) is assigned to each system and equipment acquisition program. This ILSM resides in the program office and is accountable for ILS planning, logistics resource management, ILS program progress and performance measurement, and transfer of logistics products to the Fleet or other receiving activities.

Full logistics support for an end item's support equipment must be available when the end item is installed on an operational Navy ship.

14.4 ILS Element Descriptions

14.4.1 Maintenance Planning

Maintenance planning is a process conducted to establish maintenance and support concepts and requirements for the lifetime of the defense system. A Maintenance Plan is a description of the requirements and tasks to be accomplished for achieving, restoring, or maintaining the operational capability of a system, equipment, or facility. It contains the performance requirements for each level of maintenance (i.e., organizational, intermediate, and depot) and lists the maintenance requirements that must be accomplished.

The contractor may be required to deliver Maintenance Planning Summaries in accordance with DI-ALSS-81530 in TechAmerica Standard, GEIA-STD-0007, Logistics Product Data, reference (e). These summaries provide maintenance planning information that may be used to develop initial fielding plans for the end item's support structure. They may also be used to verify that the maintenance actions and support structure are aligned with the Government's requirements and maintenance concept. The information contained within these summaries is associated with system components to the level of detail specified on the contract. The repairable items should be identified within the hierarchy of the end item, broken down by an agreed-upon configuration control method in accordance with NAVSEAINST 4790.1B**,** reference (f). The summaries may identify preventive and corrective maintenance actions and the required spares and support equipment. These summaries may also be used to provide supporting information that justifies the need for each maintenance action, e.g., elapsed time of maintenance actions, task frequency, failure rate of an item, and mean time to repair an item.

14.4.2 Manpower and Personnel

Manpower and personnel represents the people required to operate and support the system over its planned life cycle. Manpower and personnel analysis is the process conducted to identify and acquire military and civilian personnel with the skills and grades required to operate and support the system over its planned lifetime at both peacetime and wartime rates. Acquisition logistics efforts should strive to minimize the quantity and skill levels of manpower and personnel required in accordance with OPNAVINST 1500.76C, "Navy Training System Requirements, Acquisition and Management," reference (g).

14.4.3 Supply Support

Supply support involves ensuring that spares (hardware, components, and computer programs) and repair parts required to operate and maintain a system are provided on a timely basis. Hardware supply support consists of a provisioning phase followed by routine replenishment, and software supply support must include software and firmware cataloging and provisions for routine re-supply of media (i.e., magnetic tapes, etc.).

14.4.4 Support and Test Equipment

Support equipment is all equipment (mobile or fixed) required to support the operation and maintenance of a material system. Support equipment consists of ground handling and maintenance equipment; tools, jigs, and fixtures; miniature/micro-miniature repair kits; Gold Disks and Test Program Sets (TPS); and Test, Measurement, and Diagnostic Equipment (TMDE). It also includes the acquisition of logistics support for the support equipment. Where possible, existing general purpose support equipment is selected for use on new systems or equipment as opposed to developing new, special purpose support equipment. The use of general purpose support equipment eases the burden on the logistics system since new training, provisioning, maintenance planning, and calibration procedures are not needed.

14.4.5 Technical Data

Technical data is recorded information regardless of form or character, such as manuals and drawings of a scientific or technical nature. ILS plans include strategy, procedures, and schedules for identifying, specifying, preparing, collecting, publishing, distributing, updating, and archiving technical data related to the end item. To obtain the requisite technical data, acquisition contracts must contain specific requirements for the contractor to develop and deliver the data to the Government. Program Managers for new shipbuilding programs and new systems and equipment whose designs are under Navy control must procure the technical data. Publication of technical manuals must be scheduled to coincide with the availability of final drawings of the end item to ensure that the manuals accurately reflect technical and logistics support data. Preliminary technical information must be provided to training commands and installation, maintenance, and operating personnel prior to equipment delivery.

14.4.6 Training and Training Support

Training and training support addresses the processes, procedures, curricula, techniques, training devices, simulators and equipment necessary to train civilian and military personnel to operate and support equipment and systems. A Navy Training System Plan (NTSP) is developed for each system and equipment acquisition addressing initial, formal, and on-the-job training. Logistics support must also be provided for the installation, operation, and support of devices for required training equipment.

14.4.7 Computer Resources Support

The Computer Resources Support element addresses the facilities, hardware, software, documentation, and manpower and personnel needed to operate and support embedded computer systems. Computer hardware and software performance requirements, if needed, are also determined as part of the ILS process. A software development plan is prepared for the acquisition of software, and a Computer Resources Life Cycle Management Plan (CRLCMP) is developed to describe how software changes will be managed throughout the life of the item; the plan will address specific items such as responsibilities and actions required for configuration control, documentation development, validation and verification, and management of Fleet feedback.

14.4.8 Facilities

Facilities are the permanent, or semi-permanent, real property assets required to support a material system. The facilities elements include studies to define types of facilities or facility improvements needed, locations, space needs, environmental requirements, and equipment needed in the facility. The use of organic depot and intermediate level maintenance activities is assessed, as well as interim contractor support. Existing facilities are viewed as an alternative to new facility acquisition.

14.4.9 Packaging, Handling, Storage, and Transportation

The Packaging, Handling, Storage, and Transportation (PHS&T) addresses the resources, processes, procedures, and design considerations related to the safe PHS&T of all systems, equipment, and support items. PHS&T includes environmental considerations and equipment preservation requirements for short and long term storage. Early in the assessment process, requirements must be determined for equipment protection against specific environments. Technical instructions must be developed to ensure safe packaging, handling, storage, and transportation of the end item or its components throughout the life cycle. These requirements must be provided in time for use with the first end item and its components. The project's logistics database and planning documents must include PHS&T requirements and cite arrangements for providing associated resources.

14.4.10 Design Interface

Design interface is the primary area of the integration among logistics and systems/software engineering functions. This includes design parameters such as reliability, maintainability, and supportability. Design interface provides product specifications which measure demands on the logistics system by system performance rather than inherent technical factors of design. Within the design interface element, the logistics analysis and the human engineering process have the greatest influence on design.

14.5 Joint Computer-Aided Acquisition and Logistics Support (JCALS) Program

The JCALS program consists of a set of software tools used to manage electronic technical data (SGML/XML/PDF/etc.). The data currently managed includes the Planned Maintenance System (PMS), Engineering Operation Sequencing System (EOSS), and Technical Manuals (TMs). Management of the data includes editing (PMS/EOSS/TM) by many Navy activities and contractors and data viewing (PMS/EOSS) by fleet sailors, Navy Civilians, and DOD contractors.

14.6 Role of the ILS Manager (ILSM) and Logistics Element Manager (LEM)

The ILS Manager (ILSM), designated by the acquisition Program Manager, is responsible for managerial overview of the requirements and responsibilities for planning the ILS effort. The ILSM heads the ILS management team. Team members are called Logistics Element Managers (LEMs) and are responsible for advising and assisting ILSMs in their specific areas of expertise. Each LEM is responsible for developing and promulgating the policy and procedures necessary to ensure timely and adequate logistics support for a specific logistics element.

14.6.1 ILSM Team Meetings for Repair or Overhaul Availabilities

Based on a schedule promulgated by the PM in their ILSM Plan, meetings will be conducted and should begin at the Start of the Availability (SOA). ILSM team meetings are typically scheduled for availabilities of three months duration or longer. The determination to schedule an ILSM team meeting will be at the discretion of the PM based on Fleet need, the complexity of the availability work package, number of new first time installations, or other significant issues identified prior to or during the execution of the availability. ILSM team meetings provide the PM an opportunity to identify deficiencies and take corrective action prior to the End of the Availability (EOA).

14.7 Provisioning Process

The NAVSEA ILS Manager is responsible for the development of the maintenance concept, all program support data, and all provisioning requirements pertaining to the acquisition. The maintenance concept will contain specific guidance related to standardization, the use of Built-In Test Equipment (BITE) and Automatic Test Equipment, modularization, and economic versus non-economic criteria. This guidance has a direct impact on the provisioning process. The Maintenance Plan that evolves from the concept forms the basis for the provisioning effort. Simply, the provisioning process must determine the supply support necessary to provide the capability to carry out the Maintenance Plan. Procedures, policy, and guidance for the provisioning process are contained in the Provisioning, Allowance, and Fitting Out Support (PAFOS) Manual, reference (h), and the NAVSEA Program Manager's Guide (PMG), reference (i).

14.7.1 Provisioning Technical Data (PTD)

The Provisioning Team prepares the provisioning contract requirements to obtain the PTD. The Provisioning Team consists of, at a minimum, the ILS Manager and representatives from the Technical Support Activity (TSA) and the Naval Inventory Control Point, Mechanicsburg, PA, (NAVICP-M). The contractor has the responsibility of providing the data, and the Provisioning Team must ensure that the correct data is specified in the Contract Data Requirements list (CDRL) and the Procurement Request (PR) to obtain essential supply support data and products. The NAVSEA Program Manager's Guide provides detailed guidance for PTD requirements. NAVSEA has developed a Logistics Management Information (LMI) Worksheet similar to that found in GEIA-STD-0007. It is recommended for use by NAVSEA Program Managers when contracting for specific data elements from the contractor. NAVSEA has also developed two attachments that must accompany the NAVSEA LMI Worksheet that address data delivery and format, both of which are outside the scope of GEIA-STD-0007. The Worksheet and its attachments can be found in the NAVSEA Program Manager's Guide.

The LMI Performance Specification (GEIA-STD-0007) describes information required by the Government to perform acquisition logistics management functions. The specification is designed to minimize oversight and Government-unique requirements. The underlying

philosophy of this specification is to allow contractors maximum flexibility in designing systems and developing, maintaining, and providing support and support-related engineering data. Additional guidance on using LMI Summaries and LMI Worksheets can be found in the DoD Handbook for Product Support Analysis (MIL-HDBK-502A), reference (j). The Navy requires the PTD to be delivered in a format accepted by the Interactive Computer Aided Provisioning System (ICAPS). The ICAPS software is designed to support and accept data in various provisioning LMI formats. If a non-ICAPS system is utilized, it must be able to produce a structured formatted text or flat file in accordance with the direction contained in Appendix K of PAFOS Chapter 4. LMI summaries contain information that the Government needs in order to assess design status, conduct logistics planning and analysis, influence program decisions, and verify that contractor performance meets system supportability requirements. The LMI summaries can be delivered as stand-alone reports or as an integral part of other systems engineering documentation.

The Provisioning Performance Schedule is a non-technical schedule of events occurring during the provisioning process. It is the only provisioning requirement that varies in NAVSEA contracts. The Provisioning Parts Data (PPD) identifies all support items that can be disassembled, reassembled, and, when combined, that constitute the end item. The PPD contains data required to catalogue an item in the Navy/DoD Supply System, build Allowance Part Lists (APL), and provide for inventory management.

14.7.2 Engineering Data for Provisioning (EDFP)

Approved EDFP is required for all systems and/or equipment that are acquired for Navy use and for which PTD is being acquired. It is the technical data that provides definitive identification of dimensional, material, mechanical, electrical, or other characteristics adequate for provisioning of the support items of the end articles on contract. EDFP consists of data such as specifications, standards, drawings, photographs, sketches, and descriptions, and the necessary assembly and general arrangement drawings, schematics, schematic diagrams, wiring, and cable diagrams, etc. This data is necessary for:

- the assignment of Source, Maintenance, and Recoverability (SMR) codes
- assignment of Item Management Codes
- prevention of proliferation of identical items in the Government inventory
- maintenance decisions
- item identification necessary in the assignment of a National Stock Number (NSN)

EDFP format and content must be prepared in accordance with the latest industry standards and must be reproducible, as outlined below. Approved EDFP shall contain all appropriate annotations, i.e., proper Distribution Statements, Military Critical Technology markings, etc.

For items without an NSN recognized industry standard or government specification or standard, the following order of precedence is required for EDFP:

1. Technical data equivalent to approved Product Engineering Drawings as defined in MIL-STD-31000A, Detail Specification Technical Data Packages, reference (k).

2. Commercial drawings.

3. Commercial manuals, catalogs, or catalog descriptions.

4. Sketches or photographs with a brief description of dimensional, material, mechanical, electrical, or other characteristics.

EDFP shall provide for the following:

- technical identification of items of maintenance support considerations
- preparation of item identification for the purpose of assigning NSNs
- review for item entry control
- standardization
- review for potential interchangeability and substitutability
- item management
- coding
- preparation of allowance/issue lists
- Source, Maintenance, and Recoverability coding

EDFP shall not be provided when the item is:

- identified by a government specification or standard which completely describes the item including its material, dimensional, mechanical, and electrical characteristics
- identified in Defense Logistics Information as having a NSN with salient characteristics identical to the item
- item is listed as a reference item (subsequent appearance of an item) on a parts list

14.7.3 Provisioning Coding

The provisioning process requires a series of technical decisions recorded by the assignment of codes and is commonly referred to as "provisioning technical coding." The Technical Support Activity (TSA) validates the technical data provided by the equipment manufacturer and applies all technical coding to the spare and repair parts. The PTD is reviewed by the TSA for both engineering accuracy and technical accuracy. There are three types of provisioning methods for coding: in-house provisioning, a conference team, and the resident provisioning team. The Inventory Control Point (ICP) also has Supply Management coding decisions, such as production lead time, turnaround time, security codes, Unit of Issue, National Stock Number (NSN), and Shelf Life (SL) code which occur during the provisioning process.

Source, Maintenance, and Recoverability (SM&R) codes applied by the preparing activity identify the source of material and who can remove and replace, repair, and dispose of the material. The SM&R code is a 6 position code and is based on the maintenance concept of the systems or equipment. The Source Code is in the first two positions of the SM&R code indicating the means of obtaining a part required for the maintenance, repair, or overhaul of equipment. These codes indicate whether the part is to be procured and carried in the supply system, not to be carried in the supply system but to be procured on demand, to be manufactured, or to be assembled using component parts. The Maintenance codes are in the third and fourth position of the SM&R code. The third position indicates the lowest maintenance echelon authorized to remove, replace, and use the item. The fourth position indicates the maintenance echelon capable of performing any repair. The fifth position of the SM&R code is the Recoverability code. It indicates the disposition action for unserviceable items and/or lowest maintenance echelon capable of performing complete repair. There is an optional supplemental code for the sixth position.

Allowance Override (AOR) Codes are technical overrides which specify requirements to ensure that a minimum quantity of an item is available for such reasons as the accomplishment of planned maintenance or the safety of the operator. Technical overrides can also ensure that a part is not stocked onboard if the item is not required.

Military Essentiality Codes (MEC) define the importance of a system, equipment, or part to the missions of the ship. During the provisioning process, the MEC determination is made only at the part level.

14.7.4 Logistics Databases

The data elements which have been developed throughout the provisioning process must be loaded into computer files.

The Configuration Data Manager’s Database - Open Architecture (CDMD-OA) is a real-time configuration record for ship-to-equipment (Level A) data. Level A contains configuration data applicable to each ship (or shore) activity requiring logistics support.

The WSF (Level C) contains equipment to part data and item management data. Level C contains data constant to the APL itself, shows an equipment's higher and lower application, and lists repair parts selected for provisioning at all levels of maintenance.

14.7.5 Allowance Development

After data has been stored in the computer files, allowance quantity computations are made using one of six techniques:

- Fleet Logistics Support Improvement Program (FLSIP)
- Modified FLSIP.10
- Conventional
- TRIDENT
- Operational Availability Optimization (OAO)
- .5+ FLSIP Price Sensitive

These computations lead to the development of two primary allowance documents: the Allowance Parts List (APL) and the Stock Number Sequence List (SNSL) as part of the Coordinated Shipboard Allowance List (COSAL).

The APL is a technical document prepared for each equipment and major component onboard, listing all the maintenance-significant repair parts installed in the equipment or component to which it applies. Repair parts listed on an APL are identified by National Item Identification Number (NIIN) or Navy Item Control Number (NICN) and are cross-referenced to the corresponding manufacturer and manufacturer's part number. Other information available on the APL reflects the technical decisions made during the provisioning process.

The SNSL is a list of repair parts, modules, and assemblies with allowed onboard quantities required for the operation, overhaul, and repair of systems onboard a ship or activity. The SNSL is the basic outfitting document for ships and a supply management guide for shore activities.

Hard copy COSALs are prepared for non-SNAP (Shipboard Non-Tactical Automated Data Processing) ships. The SNAP data base is the official configuration file which lists:

- equipment and components installed in the ship to perform its operational assignment
- repair parts and special tools required for the operation, overhaul, and repair of this equipment

- miscellaneous portable items necessary for the care and upkeep of the ship
- material support required to enable the ship to have a minimum self-supporting capability for an extended period of time

The primary instruction which establishes Navy policy for COSALs is the Supply Support of the Operating Forces, OPNAVINST 4441.12D, reference (l). The COSAL is produced in three major parts:

- Part I: Indexes identifying the APL/Allowance Equipage List (AEL);
- Part II: Allowance Lists (the actual APLs and AELs associated with the installed equipment); and
- Part III: The SNSL and a cross-reference list of part and stock numbers in the COSAL.

An introduction precedes Part I and gives information concerning COSAL data content and code definitions.

14.7.6 Purchasing

Once necessary spares and repair parts have been identified, a purchase request must be prepared and issued. NAVICP-M will initiate stock buys and other supply support requests to ensure that spares and repair parts are obtained in a timely manner.

The "bottom line" in the provisioning process is the identification of the spares and repair parts necessary to support the end item. DoD regulations specify which spares may be procured as part of the provisioning process. Procurement actions often demand a long lead time, and proper timing is critical. On average, the steps in the process require 17 months to complete prior to any procurement action. These steps must commence early in the acquisition process to allow for the necessary procurement lead time. The following procurement tools aid in reducing procurement lead times:

a. The Spares Acquisition Integrated and Production (SAIP) Program is intended to secure economic efficiency in the procurement of spares and repair parts through economies of scale and procurement of material while the production line is running.

b. The Timely Spares Provisioning (TSP) program allows for the procurement of spares and repair parts concurrently with the end item and increases the flexibility of the provisioning process. It provides an option for the use of carefully directed contractor services to determine support levels and accomplish provisioning tasks in a manner that will confirm the availability of spares and repair parts when preliminary operational capability is achieved.

14.8 METHODS OF SUPORT

The three options for supporting the Fleet are: Full Contractor Support, Interim Support, and Full Navy Support. Each method has its own advantages and disadvantages.

14.8.1 Full Contractor Support

The Program Manager may obtain all supply support from a contractor. This method is advantageous to the Navy when design is unstable and some material inventories may not be required. It is also used when adequate time is not available to establish a Navy support capability. The range and depth of support should follow Navy computation rules so excess material is not generated when transitioning to Navy support. The transition plan to Navy support must address usage data collection by the contractor for all planned and corrective maintenance actions in a format the Navy can readily use.

14.8.2 Interim Support

When the full provisioning process is not feasible, some form of interim support must be provided. When interim support procedures are used, the Program Manager is responsible for not only making sure required repair parts are available, but also for ensuring the proper identification and marking of supply material, including the assignment and use of Navy Item Control Numbers (NICN) and NSNs.

14.8.3 Full Navy Support

The point in time when the Naval Inventory Control Point (NAVICP) has established the desired support infrastructure to provide spares and repair parts for a system or equipment is known as the Material Support Date (MSD). Full Navy Support occurs when all logistic support is provided from organic Navy resources. This date is known as the Navy Support Date (NSD).

14.9 MATERIAL VISIBILITY AND MANAGEMENT

The totality of material assets owned by the Government (i.e., all GFM and any CFM to which the Government will have title upon fulfillment of the contract) and maintained by the SUPSHIP and/or the contractor are collectively referred to as Government-Owned Material (GOM). GOM includes COSAL material, Schedule A, and Installation and Checkout (INCO) material. GOM may apply to any new ship construction or conversion program, as well as any ship repair, overhaul, or alteration program.

Visibility of GOM applies under the Department of Defense (DoD) Total Asset Visibility (TAV) policy which is described in the DoD 4140.01, “Supply Chain Materiel Management Procedures,” reference (m). As part of the Navy’s implementation of TAV, contractors will be required in all new-start contracts to make the Government’s assets in their possession visible via an approved, automated method. SUPSHIPs are strongly encouraged to pursue

all viable channels to obtain GOM visibility even for existing contracts. For existing contracts, SUPSHIPs should communicate with their contractors in an attempt to capture GOM inventory data for visibility purposes. Where there is a substantial cost associated with capturing this data and keeping it current, SUPSHIPs should inform the program sponsor and obtain further direction from the sponsor. NAVSEA headquarters will institute various metrics to assess the number of contracts and levels of GOM inventories in compliance with TAV initiatives.

An approved system for management of GOM is the Configuration Data Manager's Database-Open Architecture (CDMD-OA) system. Requiring the contractor to provide an initial GOM inventory baseline and periodic updates of that baseline to the SUPSHIP for incorporation into CDMD-OA is sufficient to provide "local visibility." It also satisfies auditors' mandates to have all material assets on accountable records. The visibility requirement does not stop there, however, as TAV has more global implications. The Navy's system for global asset visibility is the Virtual Master Stock Item Record (VMSIR). In order to ensure that GOM would have global visibility, an interface has been established between CDMD-OA and VMSIR. The interface is known as ROMISVIS. The advantages of GOM visibility via ROMISVIS include higher reliability of inventory accuracy, increased reutilization of assets, and avoidance of unnecessary material procurements.

14.9.1 SUPSHIP and FISC/NAVSUP Responsibilities

Both SUPSHIPs and NAVSUP are responsible for:

- **FISC/NAVSUP:** identifying points of contact for material control and data systems
- **FISC/NAVSUP:** reporting on active shipbuilding and repair contracts
- **SUPSHIP:** identifying contracts as viable candidates for GOM visibility
- **FISC/NAVSUP:** obtaining a baseline inventory and periodic updates from the contractor for each active contract in an approved digital format
- **FISC/NAVSUP:** reporting those inventories to VMSIR using the ROMISVIS process

14.10 Technical Manual Management Program (TMMP)

14.10.1 Introduction

NAVSEA Technical Manuals (TMs) are managed and controlled through a central Technical Manual Management Program (TMMP) designed to ensure accurate, cost-effective, adequate TMs are available for Fleet and shore activity use through proper planning, funding, scheduling, and management of TMs. TMMP directive, NAVSEAINST 4160.3B, "Technical Manual Management Program," reference (n), and the associated reference (o), NAVSEA S0005-AA-PRO-010/TMMP, "Technical Manual Management Program Operations

and Procedures" provide the policies and procedures that apply to the TM life cycle process (see Fig. 14-1 below) and management of NAVSEA TMs (except those under NAVSEA 08 and Navy Special Weapons Ordnance Publications).

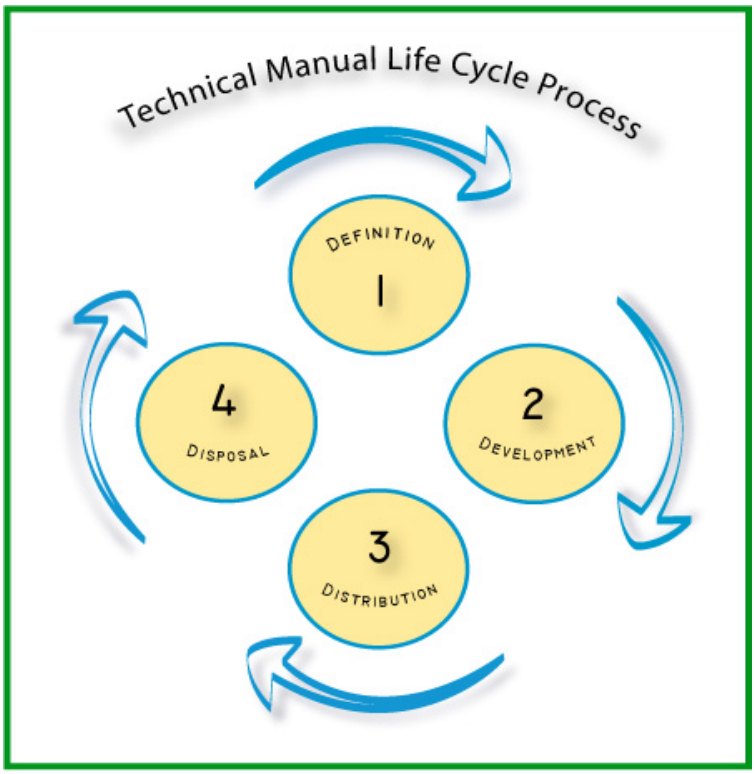

Figure 14-1. TM Life Cycle Process.

The TMMP organization is depicted in figure 14-1. NAVSEA 04L exercises authority and responsibility for policies, procedures, and programs applicable to the TMMP and ensures that the TMMP is coordinated and integrated with ILS and related technical programs. The Naval Systems Data Support Activity (NSDSA) acts as NAVSEA's agent in TM related matters providing support for centralized TM operations as directed by NAVSEA 04L. Acquisition managers are responsible for procuring comprehensive TMs supporting each ship, weapon system, equipment, or major component and for ensuring TMs provided to the Fleet and other users are technically accurate, adequate, and suitable for quality duplication prior to distribution. To do this, a Technical Manual Management Activity (TMMA) is assigned management responsibility for TMs. The TMMA is responsible for assigning an individual to perform TM Manager functions for each TM in accordance with the defined TMMP requirements. When a contractor is designated as a TMMA, a NAVSEA Government activity is identified as the Program Sponsor Activity and retains the inherently governmental TMMA functions. The acquisition manager, supported by the TMMA/TM Manager, is

responsible for maintaining the technical quality of cognizant TMs. The TM Manager supports the acquisition manager in this activity by coordinating and managing changes and revisions to assigned TMs.

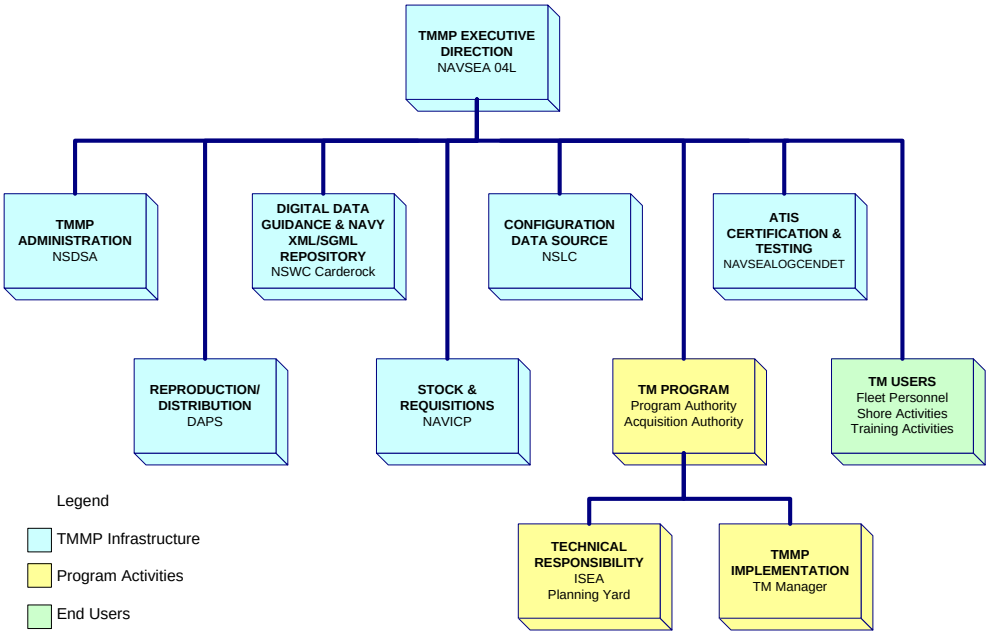

Figure 14-2. TMMP Organization.

14.10.2 TM Acquisition and Management

TM Planning. When procuring TMs, the acquisition manager is responsible to ensure an approved life cycle Technical Manual Plan (TMP) is developed for each new ship, major system, and major modification program. This TMP describes the operation, maintenance, and training TMs and how these TMs will support the system or equipment. The TMP also lists responsibilities, milestones, and schedules and must be maintained throughout the ship, system, or equipment life cycle to reflect configuration changes. Additionally, the requirements for a TMQA program should be considered early in the planning and throughout the life cycle of the applicable ships, systems, and/or equipments. Acquisition schedules include time for contractor validation, Government review, verification, reproduction and/or printing, and distribution of TMs prior to delivery of the system or equipment to the user. New and revised TMs are to be acquired, produced, delivered, and maintained compliant with Department of the Navy (DON) Policy on Digital Product/Technical Data requirements.

Funding. SCN funds are used to acquire accurate and adequate TMs for ship acquisition or outfitting. The update of SRD and systems and equipment technical manuals for an overhaul or other depot availability are funded by FMP/Design Service Allocation (DSA) resources.

Development Requirements. NAVSEA TMs and revisions must be acquired in accordance with a Technical Manual Contract Requirement (TMCR) or a Technical Manual SEATASK Requirement (TMSR). A TMCR is a definitive contractual document and is identified on the associated CDRL(s). A TMSR is similar and is used for government developed TMs. The acquisition manager (or designated agent) generates the TMCR/TMSR from within the Technical Manual Module of the Streamlined Modular Acquisition Requirements Tailoring Tool (SMART-T). The SMART-T Technical Manual Module contains an automated system for generating TMCRs/TMSRs tailored to specific procurements using only standardized and authorized specifications. The TMCR/TMSR specifies the requirements for the format, style, and technical content of TMs, associated TM products (e.g., TMQA Program Plan, Book Plan, Validation Plan, etc.), and provides the quality assurance requirements to be met. Additionally, it is NAVSEA policy to procure, evaluate, and use COTS manuals for commercial equipment whenever possible. A TMCR for the evaluation of and development of supplemental TM data for COTS TMs is also available through SMART-T. SMART-T provides a repository for TMCRs/TMSRs. TMCRs/TMSRs within the repository are viewable without an account; however, to generate a TMCR/TMSR, responsible individuals are required to register for and obtain an account. SMART-T is accessible via the NSDSA website at https://nsdsa.nmci.navy.mil/ **.

Life Cycle TM Information. The Technical Data Management Information System (TDMIS) is a Department of the Navy (DON) database used to manage and track the life cycle history of NAVSEA TMs. The TDMIS database also tracks TM history for other Systems Commands, such as Space and Naval Warfare Systems (SPAWAR) TMs and selected Naval Air Systems Command (NAVAIR) Air Traffic Control Equipment TMs. TDMIS provides a tool for programs to manage and users to research TM information, as well as provides viewing of selected TMs. This database contains both the current revision and/or change configuration information and historical information for each TM. TMMAs are responsible for maintaining current records of their TM products within TDMIS.

Whether Configuration Overhaul Planning (COP) has been completed or not, the PM/In-Service Engineering Agent (ISE) should provide a list of what TMs are required for the systems/equipment scheduled for installation during the availability. The list should state if a TM is to be shipped with equipment to the Integrated Logistics Overhaul (ILO)/ship or if the ILO/NSA should order it through the Navy Supply system..

TDMIS is also the source for obtaining Indexes of Technical Publications (ITPs). ITPs are automated listings which identify general, ship level, and equipment related TMs applicable to an individual ship, ship class, or group of ships/battle group (strike group). The ITP has been designed to serve several purposes:

- Provide a listing of TMs/CD-ROMs applicable to a ship as identified within TDMIS.
- Identify TMs/CD-ROMs to specific systems and equipments.
- Provide information about each TM/CD-ROM.
- Identify TM-to-CD-ROM Volume ID number.

The ITP is based on ship's configuration data as maintained in the Configuration Data Manager's Database-Open Architecture (CDMD-OA) and related to the TM data maintained in TDMIS. The intended use of the ITP is to assist in determining the TMs/CD-ROMs

** Denotes secure website requiring NMCI/CAC access

needed to support the operation, maintenance, troubleshooting, and repair of the onboard systems or equipment. The ITP also provides information on non-equipment related items and procedures. TDMIS can produce the following types of ITPs, depending upon the amount of information desired by the requester:

- Publication Data File
- Publication, RIC Data File
- Publication, RIC, HSC5 Data File
- Publication, RIC, HSC5, P/S Data File
- Ship Class

U.S. Military personnel and Government employees with a TDMIS account may generate and download an ITP from the Fleet Tailored Technical Data (FTTD) Module of TDMIS. Others may request an ITP from NSDSA via the NSDSA website (https://nsdsa.nmci.navy.mil/**). Requesters can choose to have the ITP formatted as either an Excel spread sheet (default) or as a text file. ITPs can be requested from within TDMIS 24 hours a day, seven days a week and can be retrieved the next day (overnight processing is required).

14.10.3 Technical Manual Identification Numbering System (TMINS)

The Technical Manual Identification Numbering System (TMINS), promulgated by the Commanders of the Naval Air Systems, Space and Naval Warfare Systems, Sea Systems, and Supply Systems Commands, provides a single numbering system for TMs and, when appropriate, other publications and documents procured by the Naval Systems Commands. The TMINS establishes a standard method of assigning a unique identification number to each TM or separately bound portion of a TM. TMINS assignments are used to acquire and manage TMs and are assigned via TDMIS, which is managed and maintained by NSDSA. Local assignment of identification numbers to distributed preliminary or final TMs, TM updates, or commercial manuals is not authorized. Detailed descriptions and guidance for TMINS is provided in N0000-00-IDX-000/TMINS. Once assigned, the TMIN is printed or displayed on all:

- New TMs
- Revisions
- Changes
- Commercial manuals and their supplements used by operating forces or in support of the Fleet
- Technical publications and documents (used by operating forces)

A NAVSEA TMIN has an "S" or "T" as the first character. The TMINS simplifies locating and obtaining information from TM lists, indexes, and libraries. Each new TM, change, or revision is also assigned a specific stock number.

14.10.4 Technical Manual Quality Assurance (TMQA)

When the Government accepts a TM which is incomplete, inaccurate, or does not correctly reflect system or equipment configuration, Fleet operation and maintenance support are adversely affected. NAVSEA established a Technical Manual Quality Assurance (TMQA)

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program which applies throughout a TM's life cycle. The objective of a TMQA program is to develop final TM products which meet quality requirements in terms of reliability, readability, adequacy, completeness, usability, reading grade level, and compatibility ensuring the Fleet and other users are provided technically accurate TMs that are of acceptable quality. The applicable Technical Manual Contract Requirements (TMCRs) or Technical Manual SEATASK Requirements (TMSRs) contain requirements for development and quality assurance of TM products as well as for completion of TMQA events.

TMQA programs are established by both the acquiring and the preparing activities.

- TMQA programs for the acquiring activity are based upon the complexity of the task and may include preparation and execution of a TM Plan and a Verification Plan; conduct of Guidance and Quality Planning meetings, in-process reviews, and Quality Program Reviews; producing review and verification findings; ensuring the Verification Incorporation Certificate (NAVSEA Form 4160/6) is completed and acceptable; and completion of the Technical Manual Certification Sheet (NAVSEA Form 4160/8).

- The preparing activity's TMQA program, which is approved by the acquiring activity, may include development and execution of a TMQA Program Plan and a validation plan; conduct of Quality Reviews and validation; participation in Guidance and Quality Planning meetings, Quality Program Reviews, and in-process reviews; and documenting QA actions with validation records, validation certificates, and verification incorporation certificates.

NAVSEA TMMP policy is that TMs and TM updates shall be validated by the preparing activity and verified by the Government acquiring activity. TMs shall not be considered final until they have completed validation and verification. Final TMs or TM updates shall not be released for duplication or distribution without a properly completed NAVSEA Technical Manual Certification Sheet (NAVSEA Form 4160/8). When directed by the program or acquisition manager, validated preliminary TMs may be used to support ship, system, or equipment requirements when the final TM is unavailable due to scheduled or in-process verification efforts.

14.10.5 TM Deficiencies

Because TM deficiencies adversely affect accuracy, adequacy, usability, and safety, NAVSEA instituted the TMMP Deficiency Program. The Deficiency Program is a maintenance program to resolve user-reported TM deficiencies and to ensure that TMs are maintained current and accurate at all times. The two main components of the Deficiency Program are Technical Manual Deficiency/Evaluation Reports (TMDERs) and Advance Change Notices (ACNs). Deficiency records are maintained within the Deficiency Module of TDMIS.

Additionally, Manual Change Requests (MCRs) may be utilized for selected submarine related TMs. T0005-AA-GYD-010 and -020 provide information on the use and processing of MCRs for selected submarine related TMs. MCRs are managed outside of TDMIS, however the Planning Yard Deficiencies Module within TDMIS may be used to track MCRs.

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TMDERs are the primary method for the Fleet and other users to identify technical and non-technical discrepancies or deficiencies or to offer suggestions for improving existing TMs. The use of the TMDER is limited to identifying routine, non-emergency problems. In those instances where a TM deficiency constitutes an urgent problem, (i.e., involves a condition, which if not corrected, could result in injury to personnel, damage to the equipment, or jeopardy to the safety or success of the mission), the TM user should send a Naval Message. The TMDER Form NAVSEA/SPAWAR 4160/1 is accessible via the NSDSA website at https://nsdsa.nmci.navy.mil/**.

The following methods are available for generation and submission of TMDERs:

- The most expedient and preferred method of TMDER generation and submission is via the Technical Data Management Information System (TDMIS) website at https://nsdsa.nmci.navy.mil/**.

  TDMIS accounts can be requested at https://nsdsa.nmci.navy.mil/**

- Generate and submit TMDER via the NSDSA website at: https://nsdsa.nmci.navy.mil/**

  - When internet access is not available, submit TMDER via hardcopy to:

    COMMANDER
    CODE 310 TMDERs
    NAVSURFWARCENDIV NSDSA
    4363 MISSILE WAY, BLDG 1389
    PORT HUENEME, CA 93043-4307

  - TMDERs against classified TMs must be submitted using the hardcopy method cited above.

  - Urgent priority TM deficiencies shall be reported by Naval message with transmission to Port Hueneme Division, Naval Surface Warfare Center (Code 310), Port Hueneme, CA. Local message handling procedures shall be used. The message shall identify each TM deficiency by TM identification number and title. This method shall be used in those instances where a TM deficiency constitutes an urgent problem, (i.e., involves a condition, which if not corrected, could result in injury to personnel, damage to the equipment or, jeopardy to the safety or success of the mission).

Complete instructions for TMDER generation and submission are detailed on the NSDSA website at: https://nsdsa.nmci.navy.mil/**.

The TMMA (via the cognizant TM Manager) is responsible for ensuring that deficiencies reported via TMDER are reviewed, analyzed, and responded to/acted upon in a timely manner. The TM manager is responsible for ensuring resolutions to deficiencies are permanently incorporated into affected TMs.

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The TMMA may issue an Advance Change Notice (ACN) to correct urgent deficiencies that impact personnel safety and mission accomplishment or result in permanent degradation of the equipment. ACNs are used to disseminate urgent or emergent personnel safety, system or equipment safety, or mission critical information due to TM deficiencies. Besides revisions and changes, ACNs are the only other authorized documentation that can be issued to correct, update, clarify, or amplify a TM. Use of bulletins, notes, newsletters, etc., is not authorized for TM changes, updates, clarifications, or amplification. ACNs are intended to be temporary documentation until a permanent TM update can be developed and issued; therefore, ACNs are considered “deficiencies” and are to be incorporated into a permanent TM update within six months from the effective date of the ACN. ACNs must not be used for logistics certification for ship, system, or equipment installations or modifications.

Modifications to TMs must be fully coordinated with other ILS elements to ensure that corresponding changes in other ILS products are available concurrently with TM updates/revisions. Conversely, modifications to other ILS products should be coordinated with required TM changes.

14.11 TD and Other Logistics Elements

NAVSEA is responsible for budgeting for TM updates using a separate budget line for TM funds. The PM provides appropriate tasking in all authorization letters to update TMs during overhauls or other depot level availabilities. The Planning Yard maintains separate lists of SRD and non-SRD TMs requiring changes or revision during the life cycle. The TMMA maintains control over assigned TMs to be updated under FMP auspices, and the NSA performs the update of assigned TMs. The TMMA maintains non-SRD TMs between overhauls and availabilities.

For ILOs, NAVSEA must coordinate on-site TM automated data requirements with ILO internal and external interfaces. NSDSA incorporates ILO requirements into TDMIS and performs quality assurance reviews on ILO input to E-STEPS.

Each ILS element deals with important aspects of the logistics support of a system or equipment. Interfacing of each element has to be coordinated with all other elements to ensure an integrated approach to provide that support. The result will be better Fleet support at a lower overall cost for the life of the system or equipment.

14.12 CONFIGURATION MANAGEMENT (CM)

14.12.1 Introduction

The purpose of Configuration Management (CM) is to provide a systematic means for documenting and controlling the configuration of material items so that managers can better regulate total life cycle costs, contract requirements, schedules, operational performance and readiness, and integrated logistics support. CM determines which items will be managed,

who will be responsible, and how the CM function will be performed, and shall include direct performance of tasks or over-site of subordinates. Guidance for establishing a CM program is provided in NAVSEAINST 4130.12B, “Configuration Management Policy and Guidance,” reference (p), and MIL-HDBK-61A, “Configuration Management Guidance,” reference (q).

14.12.2 Policy

CM shall be applied throughout a Configuration Item’s (CI's) total life cycle. The degree of CM applied will be tailored for consistency with the quantity, size, life cycle phase, complexity, intended use, and mission criticality of the CI involved.

Further, CM will permit the maximum latitude during early design and development phases, and ensure introduction of configuration control necessary during final design, production or construction, and operation. Configuration baselines will be established for ships, systems, and equipment, including computer software and firmware. Specifications and drawings will be considered primary baseline documentation. Other program documentation will be maintained to the baseline documentation. Provisions will be made in the early CM planning and execution stages to ensure that the current configuration identification is always known and that configuration change impact is properly assessed to support areas such as ILS (including training), weight control, safety, quality, and system engineering.

The applicable PM or system/equipment LCM will develop and implement a CM plan for all ship and Government-furnished systems and equipment programs, including computer software and firmware. CM provisions for contractor-furnished systems and equipment will ordinarily be covered in the ship's CM plan. A single CM plan may suffice for a similar type of ship or for groupings of family-related systems or equipment if sufficient CM program specific information is provided for each CI being managed and controlled by the same program office. The CM plans are reviewed and updated, as necessary, and approved prior to entering each program life cycle phase. They are also updated as significant changes occur in the program, specifically in the acquisition or logistical support strategy.

Applicable configuration identification documentation will be developed or maintained throughout the life cycle of all CIs. Each program level CI will have a designated configuration manager responsible for the life cycle maintenance and control of the configuration identification documentation and the baseline it defines.

For each new ship delivered under the shipbuilding contract, the PM will task and fund the planning yard assigned for each new ship class. This will ensure the accuracy of configuration identification documents and data. Planning yard involvement should start as close to the end of contract design as practicable, preferably prior to issuance of the solicitation for ship construction.

The development and operation of a central CSA system for ships and ship-related systems and equipment, including computer software and firmware, is paramount. PMs and GFE Life Cycle Managers (LCM) establish life cycle Configuration Control Boards (CCB) to act on all

proposed configuration changes. These CCBs are established for ship and systems or equipment-level acquisition programs prior to establishing the functional baseline.

Procurement Request (PR) packages for design, development, production or construction, or for operational support of ships, systems, and equipment, including computer software and firmware (and encompassing privately developed items), will also include specific CM requirements. These requirements are equally applicable to the acquisition of re-procurement items.

14.13 CONFIGURATION DATA MANAGEMENT (CDM)

14.13.1 Introduction

Ship Configuration and Logistics Information (SCLSI) data is controlled by a SPM designated CDM. The CDM is the only activity authorized to change information in the Configuration Data Manager's Database-Open Architecture (CDMD-OA), which is directly linked to the WSF. All other activities report changes via the CDM, who has ultimate responsibility for the accuracy of SCLSIS data for their assigned ship classes. The NSAs and other activities which make configuration changes to ships are still responsible for providing complete and accurate change data to the CDM.

14.13.2 Configuration Data Manager's Database-Open Architecture (CDMD-OA)

Configuration Data Manager's Database-Open Architecture (CDMD-OA) is the single maritime Navy-approved authoritative Configuration Status Accounting (CSA) System that was developed to satisfy DoD and DoN acquisition and life cycle CM requirements. The NAVSEA Technical Specification (NSTS) 9090-700 (series), reference (r), has been issued to provide a uniform approach for shipboard Configuration Status Accounting and governs the use of CDMD-OA.

The use of CDMD-OA provides a means to define the ship configuration and evaluate progress leading to specific supply readiness and logistics objectives at established milestones. Use of CDMD-OA also improves the accuracy of the Coordinated Shipboard Allowance List (COSAL) by providing early and precise configuration definition, improving allowance support available at the end of construction, providing a central data bank for reporting progress and status information to activities responsible for managing and supporting the construction and fitting out effort, and providing an accurate, complete, and ILS-certified equipment configuration for each ship delivered.

The Navy's Weapon Systems File (WSF) includes both parts level information (Level C) and related ship configuration data files (Level A). The WSF calculates and provides allowance data to the ships based on configuration triggers received from CDMD-OA, with the exception of Maintenance Assistance Modules (MAM), where allowance data is calculated within CDMD-OA. The one-way data interface from CDMD-OA to the ship is accomplished

via the Automated Shore Interface (ASI) process. The ASI file provided back to the ship via the Revised Alternative Dataflow Web version (RADWEB) communication tool contains configuration and allowance updates to the ship's onboard database.

The configuration change and supply logistics support data which has been combined into an ASI file and posted to the ships RAD Mailbox must be downloaded by the ship and processed into the installed OMMS/OMMS-NG system. The ASI files encompass a full range of data required by the ship to identify installed equipment, document preventive and corrective maintenance, stock allowed repair items, and order needed parts for maintenance actions. Processing of ASI data updates the on-board OMMS/OMMS-NG system with current configuration and supply logistics support information provided by all previously identified sources. This updated information enables ships to properly maintain their installed systems and accomplish their assigned mission.

The validity of the OMMS/OMMS-NG depends on:

- precise configuration status information and the initial establishment of an accurate equipment configuration management database
- maintenance of equipment data for equipment actually onboard
- prompt reporting of changes which result from addition, deletion, or modification of equipments

Without accurate configuration status accounting information, all other planning, scheduling, and procurement actions would be based on questionable data. The objective of the configuration data management process is to ensure that complete and accurate configuration and logistics data is submitted and reflected in the CDMD-OA/WSF.

14.13.3 Naval Supervising Activity (NSA)/SUPSHIP/NAVSUP Annex ILS Responsibilities

NSA/SUPSHIP/NAVSUP Annex ILS responsibilities with respect to configuration status accounting include the following:

- monitor the shipbuilding and conversion, modernization, repair, or overhaul contractor performing CDMD-OA record initiation, maintenance, and completion
- as required, direct the contractor to initiate corrective action to resolve problems identified from CDMD-OA output products and other data reviews
- as required, perform the necessary validation, both physical sight and record validation, to ensure the adequacy and accuracy of the contractor's procedures in developing and maintaining the CDMD-OA

- provide representation at CM related meetings, conferences and program reviews.

NOTE: Specific CM-related NSA roles and responsibilities with respect to the Fleet Modernization Program are contained in the NAVSEA Fleet Modernization Program Operations and Management Manual (SL720-AA-MAN-010/020), reference (s), and in Surface Ships and Carriers Entitled Process (EP) for Modernization Management and Operations Manual (SL720-AA-MAN-030), reference (t). Specific CM- related SUPSHIP roles and responsibilities with respect to new construction are contained in NSTS 9090-700 (series).

14.14 Diminishing Manufacturing Sources Material Shortages (DMSMS)

Diminishing Manufacturing Sources Material Shortages (DMSMS) is the loss, or impending loss, of manufacturers, items, supplies, or raw materials. DoD 4140.01, "DoD Supply Chain Materiel Management Procedures," establishes Department of Defense (DoD) policy for management of DMSMS. It requires each Service component to develop a process to proactively manage DMSMS from program initiation through a system's total life cycle. PMs are directed to establish a formal DMSMS plan for all cognizant ACAT programs IAW within the guidelines of ASN(RDA) DMSMS Memo of 27 Jan 05, reference (u).

An effective, proactive DMSMS management process is critical to providing more efficient, affordable, and operationally ready systems by proactively identifying and mitigating DMSMS issues.

Program Manager's (PM's) "Top Ten" list to mitigate the risk of DMSMS should include the following actions:

1. Incremental delivery of the source data or Bill of Material (BOM), DID DI SESS-81656.

2. Identification and development of the program's technology roadmap.

3. Configuration management of the BOM to the piece part level unless otherwise supported by a Business Case Analysis (BCA).

4. Continuous monitoring of the BOM with feedback to the program office on an established periodic basis.

5. Continuous proactive identification and forecasting of DMSMS impacts and mitigations for all configurations.

6. Continual tracking and management of DMSMS cases.

7. Determination of cost-effective solutions based on the Hierarchy of Cost Avoidance Methodology identified in the DASN(L) DMSMS Management Plan Guidance, reference (v), consistent with the technology roadmap.

8. Reporting and tracking of performance and cost metrics.

9. Insight into the prime contractor's management of its subcontractor's DMSMS programs.

10. Exit clause that includes delivery of the above, as required.

SOW/SOO DMSMS Considerations. The following should be considered for inclusion in the SOW/SOO when defining the contract requirements:

a. Development and implementation of a DMSMS Management Plan.

b. Requirement to provide DMSMS case information to the PM office for incorporation into a shared Government data repository.

c. Development and implementation in conjunction with the PM office of a standard case resolution process to manage DMSMS cases.

d. Requirement to track and report DMSMS cost and performance metrics, developed by the PM office, that include those metrics identified in DASN(L) DMSMS Management Plan Guidance, dated 12 April 2005.

e. Development and maintenance of sources and source lists of all components, materials, assemblies, subassemblies, and units throughout the system's life cycle that may be at risk for DMSMS.

f. Requirement to conduct a Total Life Cycle Systems Management (TLCSM) Business Case Analysis (BCA) for the "Hierarchy of Cost Solutions" identified in Table 1 of the DASN(L) DMSMS Management Plan Guidance to determine the best value for the program.

Appendix 14-A: MOA Regarding SUPSHIP Support

DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND, WASHINGTON NAVY YARD, DC 20376-4065
NAVAL AIR SYSTEMS COMMAND, PATUXENT RIVER, MD 20670-1547
NAVAL SUPPLY SYSTEMS COMMAND, MECHANICSBURG, PA 17055-0791
SPACE AND NAVAL WARFARE SYSTEMS COMMAND, SAN DIEGO, CA 92110-3127

SPAWAR
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SER 00/295
JUL 0 3 2003
NAVAIR
4400
Ser 00/
2 8 JUN 2003
JOINT LETTER

NAVSUP
5400
SER 00
2 8 JUN 2003
NAVSEA
4400
Ser 00/
2 8 JUN 2003

From: Commander, Naval Sea Systems Command
Commander, Naval Air Systems Command
Commander, Naval Supply Systems Command
Commander, Space and Naval Warfare Systems Command

Ref: (a) NAVSEA/NAVSUP INST 4441.7B/4441.29 of 10 Dec 92
(b) SUPSHIP Operations Manual (SOM), Change A of Apr 01
(c) Fleet Modernization Program (FMP) Manual Rev 2, of Jun 02

Encl: (1) Organization Charts

Subj: VIRTUAL SYSCOM MEMORANDUM OF AGREEMENT (MOA) REGARDING SUPERVISORS OF SHIPBUILDING (SUPSHIP) SUPPORT

1. Background: In August 2002 NAVSEA identified a number of reengineering initiatives for their SUPSHIP activities. This MOA outlines the strategic direction and requirements for one of those initiatives, to realign SUPSHIP material management functions to NAVSUP. The goal is to realign functions appropriately among systems commands and specifically reduce material management costs while maintaining or improving the level of support to SUPSHIP customers.

2. Applicability: This MOA applies to NAVSEA and its SUPSHIP activities and the NAVSUP enterprise. Elements in this MOA are agreed to by NAVSEA and NAVSUP and are to be documented in NAVSUP's Strategic Plan and supported by NAVSUP's Assistant Chiefs of Staff (ACOSs) for Acquisition and Industrial Support. Signature of this MOA formally initiates action to execute transfer of SUPSHIP material management functions to NAVSUP

Subj: VIRTUAL SYSCOM MEMORANDUM OF AGREEMENT (MOA) REGARDING SUPERVISORS OF SHIPBUILDING (SUPSHIP) SUPPORT

effective this date. All civilian personnel transfers will be completed after 1 October 2003 based upon continuing NAVSUP Transformation actions underway. Civilian personnel may be temporarily reassigned via cross-claimancy detail to NAVSUP any time after signature of this MOA.

3. Responsibilities and Requirements:

a. NAVSEA will:

(1) Upon execution of this MOA, reassign employees and the positions they encumber, and transfer vacant civilian positions identified in enclosure (1) with commensurate Full-Time-Equivalent (FTE) engaged in the performance of SUPSHIP material management functions, regardless of whether it results from a transfer of function or transfer of work.

(2) Compensate NAVSUP for the level of effort transferred (labor and non-labor). Compensation will be in the form of a reimbursable for FY 04 and budget-based transfer for FY 05 and out. The specified positions associated with these functions are identified in enclosure (1). Reimbursable and transfer amounts will be on a baseline consisting of the total number of encumbered FTE transferred plus all vacancies created by attrition during CY 03 (from 1 January 2003). Reimbursable savings of 5 percent in FY 04 (FTE NTE 148), with additional targets of 5 percent in FY 05 (FTE NTE 140), 10 percent in FY 06 (FTE NTE 125), and 10 percent in FY 07 (FTE NTE 109) will apply.

(3) Reimburse and transfer non-labor costs for travel, training, general supplies and awards for transferred personnel per the annual per employee General and Administrative (G and A) rate allocated to SUPSHIP. Additionally, reimburse and transfer the cost of NMCI seats for all transferred personnel.

b. NAVSUP will:

(1) Upon execution of this MOA, accept employees and vacant civilian positions identified in enclosure (1) with commensurate FTE engaged in the performance of SUPSHIP material management functions, regardless of whether it results from a transfer of function or transfer of work.

Subj: VIRTUAL SYSCOM MEMORANDUM OF AGREEMENT (MOA) REGARDING SUPERVISORS OF SHIPBUILDING (SUPSHIP) SUPPORT

(2) Execute an enterprise approach to ensure the performance standards defined by references (a) through (c) are met. This includes any ILS elements per contract specifications, and individual Contract Data Requirements List (CDRLs) to meet customer requirements. Additional performance requirements will be negotiated and approved by both NAVSEA and NAVSUP and will be documented in local agreements.

c. NAVSEA and NAVSUP agree upon the following:

(1) Transfer, per Navy guidance, the following functions:

-- Supply/Material Management
-- Inventory Management
-- Warehousing
-- Simplified Acquisition/Small Purchase
-- Physical Distribution/Transportation
-- Credit Card Buying
-- Expediting
-- Provisioning
-- Kitting
-- Outfitting

Certain functions closely aligned with the above material management functions may remain or transfer based on local requirements subject to NAVSEA, NAVSUP approval.

(2) Local MOAs at each SUPSHIP activity will detail specific performance requirements of the partnership and provide guidance pertaining to credit card purchases. Local agreements will be developed jointly with SUPSHIP and FISC input and signed by cognizant SUPSHIP and/or RMC, and FISC commanding officers after NAVSEA, NAVSUP Headquarters, ACOS for Acquisition and Industrial Support, and PEO approval. All local MOAs will be signed with copies forwarded to NAVSEA and NAVSUP prior to 1 October 2003. Any future realignments of specific functions within the NAVSUP enterprise will be subject to NAVSEA, NAVSUP Headquarters and PEO approval and documented in separate local MOAs.

(3) NAVSUP is responsible and accountable for execution of SUPSHIP material management functions to the requirements and references stated above and in local agreements. NAVSUP has

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authority, as NAVSEA's agent for material support, to effect changes in material management processes as necessary. This authority includes coordination of regional FISCs colocated with SUPSHIP activities as well as NAVSUP support provided for remote SUPSHIP activities.

(4) Partnership performance in meeting the requirements listed above will be reviewed at least semiannually, jointly by NAVSEA and NAVSUP to include all stakeholders and the respective SUPSHIP material process owners. Update to the stated performance requirements will be accomplished as required from this input as well as from other joint SEA-SUP coordination semiannually and local MOAs will be revised accordingly.

(5) For military, the FISC SUPSHIP site director or OIC will receive Fitness Reports from the FISC commanding officer (primary), and SUPSHIP commanders (ADDU). For civilians, the FISC SUPSHIP site director's performance appraisal will be prepared by the local FISC commanding officer with input from the SUPSHIP commanding officer.

(6) Nuclear material management functions will transfer from SUPSHIP Newport News and SUPSHIP Groton to NAVICP-Mechanicsburg, PA, Code 87. NAVSEA will reimburse for NAVSEA 08 authorized SUPSHIP billets, and NAVICP's Code 87 will manage the SUPSHIP nuclear material management functions per a separate MOA among NAVICP, SUPSHIP Newport News, SUPSHIP Groton, and FISC Norfolk. Compensation will be in the form of a reimbursable for FY 04 and budget-based transfer for FY 05 and out.

4. Execution: SUPSHIP and NAVSUP enterprise leads are responsible for the execution of all performance objectives applicable to the SUPSHIP functions or work transferred. This MOA will remain in effect from the date of signature and will be reviewed at least semiannually after the transition period to include review of local MOAs.

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For the Virtual SYSCOM:

K. D. SLAGHT
Commander
Space and Naval Warfare
Systems Command

J. D. McCARTHY
Commander
Naval Supply Systems Command

C. H. JOHNSTON, JR.
Commander
Naval Air Systems Command (Acting)

P. M. BALISLE
Commander
Naval Sea Systems Command

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Appendix 14-B: Acronyms

ACAT	Acquisition Category
ACN	Advance Change Notice
AEL	Allowance Equipage List
AOC	Allowance Override Code
APL	Allowance Parts List
ASI	Automated Shore Interface
ASN(RD&A)	Assistant Secretary of the Navy (Research, Development and Acquisition)
BCA	Business Case Analysis
BITE	Built-in Test Equipment
BOM	Bill of Material
CALS	Computer-Aided Logistics
CCB	Configuration Control Board
CDM	Configuration Data Manager
CDMD-OA	Configuration Data Management Database-Open Architecture
CDRL	Contract Data Requirements List
CFM	Contractor Furnished Material
CI	Configuration Items
CM	Configuration Manager
CNO	Chief of Naval Operations
COP	Configuration Overhaul Planning
COSAL	Consolidated Shipboard Allowance List

COTS	Commercial Off-the-Shelf
CRLCMP	Computer Resources Life Cycle Management Plan
CSA	Configuration Status Accounting
DASN(L)	Deputy Assistant Secretary of the Navy (Logistics)
DMSMS	Diminishing Manufacturing Sources Material Shortages
DoD	Department of Defense
DoDD	Department of Defense Directive
DoDI	Department of Defense Instruction
DoN	Department of the Navy
DRPM	Direct Reporting Program Manager
DSA	Design Service Allocation
EOA	End of Availability
EOSS	Engineering Operation Sequencing System
EP	Entitled Process
ESTEPS	Enhanced Ship Technical Publications System
FISC	Fleet Industrial Supply Center
FLSIP	Fleet Logistics Support Improvement Program
FMP	Fleet Modernization Program
FTTD	Fleet Tailored Technical Data
GFM	Government Furnished Material
GOM	Government-Owned Material
IAW	In accordance with
ICAPS	Interactive Computer Aided Provisioning System
ICP	Inventory Control Point

ILO	Integrated Logistics Overhaul Team
ILS	Integrated Logistics Support
ILSM	Integrated Logistics Support Manager
INCO	Installation Check-Out
ISEA	In-Service Engineering Agent/Agency
ITP	Index of Technical Publications
JCALS	Joint Computer Aided Acquisition and Logistics Support
LCM	Life Cycle Manager
LEM	Logistics Element Manager
LMI	Logistics Management Information
MAMs	Maintenance Assist Module
MCR	Manual Change Request
MEC	Military Essential Code
MIL-DTL	Military Detail Specification
MILHDBK	Military Handbook
MIL-PRF	Military Performance Specification
MOA	Memorandum of Agreement
MSD	Material Support Date
NAVAIR	Naval Air Systems Command
NAVICP	Naval Inventory Control Point
NAVSEA	Naval Sea Systems Command
NAVSEAINST	Naval Sea Systems Command Instruction
NAVSUP	Naval Supply Systems Command
NDS	Navy Support Date

NICN	Navy Item Control Number
NIIN	National Item Identification Number
NSA	Naval Supervising Activity
NSDSA	Naval Sea Data Support Activity
NSN	National Stock Number
NSTS	Naval Sea System Command (NAVSEA) Technical Specification
NTSP	Navy Training System Plan
OAO	Operational Availability Optimization
OMMS/OMMS-NG	Organizational Maintenance Management System/Next Generation
OPNAVINST	Chief of Naval Operations Instruction
PAFOS	Provisioning, Allowance, and Fitting-Out Support Manual
PEO	Program Executive Office
PHS&T	Packaging, Handling, Storage, and Transportation
PM	Program Manager
PMG	Program Manager's Guide
PMS	Planned Maintenance System
PPD	Provisioning Parts Data
PR	Procurement Request
PTD	Provisioning Technical Data
PY	Planning Yard
QA	Quality Assurance
RADWEB	Revised Alternatives Dataflow Web Version
RMC	Regional Maintenance Center
ROMIS	Real-Time Outfitting Management Information System

ROMISVIS	Real-Time Outfitting Management Information System Visibility
SAIP	Spares Acquisition Integrated and Production
SCLSIS	Ship Configuration and Logistics Support Information System
SCN	Ship Construction, Navy
SECNAV	Secretary of the Navy
SECNAVINST	Secretary of the Navy Instruction
SL	Shelf Life
SM&R	Source Maintenance and Recoverability
SMART-T	Streamlined Modular Acquisition Requirement Training Tool
SNAP	Shipboard No-Tactical Automated Data Processing
SOA	Start of Availability
SOO	Statement of Objectives
SOW	Statement of Work
SPAWAR	Space and Naval Warfare Command
SPM	Ship Program Manager
SRD	Selected Record Data
SUPSHIP	Supervisor of Shipbuilding, Conversion and Repair, USN
TAV	Total Asset Visibility
TD	Technical Documentation
TDMIS	Technical Data Management Information System
TLCSM	Total Life Cycle Systems Management
TM	Technical Manual
TMCR	Technical Manual Contract Requirements
TMDE	Test Measurement and Diagnostic Equipment

TMDER	Technical Manual Deficiency/Evaluation Report
TMINS	Technical Manual Identification Numbering System
TMMA	Technical Manual Maintenance Activity
TMMP	Technical Manual Management Program
TMP	Technical Manual Plan
TMQA	Technical Manual Quality Assurance
TMSR	Technical Manual SEATASK Requirement
TPS	Test Program Sets
TSA	Technical Support Activity
TSP	Timely Spares Provisioning
VMSIR	Virtual Master Stock Item Record
WSF	Weapons System File
WSFCO	Weapons System File Configuration Output