

PAFOS TECH SPEC

CHAPTER 6

ALLOWANCE DOCUMENTS

TABLE OF CONTENTS

Chapter/Paragraph	Page
Chapter 6 ALLOWANCE DOCUMENTS	
6-1 INTRODUCTION	1
6-2 DEFINITIONS	1
6-3 THE REQUIREMENT	2
6-3.1 Allowance Development Responsibility.....	2
6-3.2 Allowance Lists.....	3
6-3.2.1 Consolidated Shipboard Allowance List (COSAL)	3
6-3.2.2 Maintenance Assistance Modules (MAMs)	3
6-3.2.3 General Use Consumables List (GUCL)	3
6-3.2.4 Ship Portable Electrical/Electronic Test Equipment Requirements List (SPETERL)	4
6-3.2.5 Food Allowance	4
6-3.2.6 Navy Resale Allowance	4
6-3.2.7 Forms and Publications	4
6-3.2.8 Oceanographic Materials	4
6-3.2.9 Photographic Equipment and Supplies	5
6-3.2.10 Material Handling Equipment (MHE)	5
6-3.2.11 Automotive Equipment	5
6-3.2.12 Yellow Gear	5
6-3.2.13 Library Allowance	5
6-3.2.14 Medical and Dental	5
6-3.2.15 Flight Deck and Hanger Deck Handling and Safety Gear	6
6-3.2.16 Helicopter Landing Aids and Refueling System	6
6-3.2.17 Aviation Consolidated Allowance List (AVCAL)	6
6-3.2.18 Intermediate Maintenance Allowance	6
6-3.2.19 Flag Allowance	7
6-3.2.20 Welfare and Recreation	7
6-3.2.21 Loose Items List	7
6-3.2.22 Hazardous Material (HAZMAT)	7
6-3.3 Configuration Status Accounting (CSA)	7
6-3.4 Model Base Product Support (MBPS) Configuration Database.....	8
6-3.5 The Navy Enterprise Resource Planning (ERP) System	8
6-3.5.1 Allowance Parts List (APL).....	8
6-3.5.2 Preliminary Allowance List (PAL)	8
6-3.5.3 Allowance Equipage List (AEL).....	8
6-3.5.4 Advance Repairable Identification Codes (RICs).....	9
6-3.5.5 Allowance Components List (ACL)	9
6-4 THE COSAL	9
6-4.1 COSAL Derivations.....	10
6-4.2 Allowance Computation.....	10
6-4.3 Allowance Maintenance.....	10

6-5 POLICY	11
6-5.1 Allowance Policy	11
6-5.1.1 Ships Allowance	11
6-5.1.2 Boats and Craft.....	11
6-5.2 APL Policy	11
6-5.3 PALs Policy.....	11
6-5.4 Configuration Data.....	12
6-5.5 Ships in Construction.....	12
6-5.5.1 Contractor Furnished Equipment (CFE).....	12
6-5.5.2 Government Furnished Equipment (GFE).	12
6-5.5.3 Equipage and Consumables	12
6-5.6 Initial COSALs.....	12
6-5.7 Organizational Maintenance Management System-Next Generation Maintenance Figure of Merit Program.....	13
6-5.8 COSAL Maintenance	13
6-5.8.1 COSAL Change Data	13
6-5.8.2 COSAL Updating Periodicity	13
6-5.8.3 NSA/Integrated Logistics Overhaul (ILO) and Planned Maintenance Review (PMR)	13
6-6 RESPONSIBILITIES	14
6-6.1 NAVSEA Sustainment Directorate (SEA 06).....	14
6-6.2 Ships Program Managers (SPMs)	14
6-6.3 Participating Program Managers (PARMs).....	15
6-6.4 Naval Support Activity (NSA)/Supervisor of Shipbuilding (SUPSHIPS).	15
6-6.5 NAVSUP Fleet Logistics Center (FLC)	16
6-6.6 Technical Support Activities (TSAs)	16
6-6.7 Configuration Data Managers (CDMs).....	17
6-6.8 NAVSUP	17
6-6.9 Naval Information Warfare Systems Command (NAVWAR).....	17
6-6.10 NAVSUP Weapons Systems Support (WSS)-Mechanicsburg	17
6-6.11 Naval Sea Logistics Center (NSLC)	18
6-6.12 In-Service Engineering Agents (ISEA).....	19
6-6.13 Ships.....	19

LIST OF APPENDICES

APPENDIX A Coordinated Shipboard Allowance List Preparation and Processing.....	20
A-1 INTRODUCTION.....	20
A-2 COORDINATED SHIPBOARD ALLOWANCE LIST (COSAL).....	20
A-2.1 Automated COSAL Format	20
A-3 COSAL COMPUTATIONAL MATH MODELS	21
A-3.1 PRICE SENSITIVE FLSIP .5 PLUS	22
A-4 COSAL PREPARATION.....	22
A-4.1 Incremental COSALs.....	22
A-4.1.1 Purpose of Incremental COSALs	23

A-5 COSAL MAINTENANCE	23
A-5.1 Automated Ships	23
APPENDIX B Allowance Parts List Preparation and Processing	24
B-1 INTRODUCTION	24
B-2 APL DEFINITION	24
B-3 APL PREPARATION	24
B-4 APL FORMAT	25
B-5 TYPES OF APLS	27
B-5.1 Hull, Mechanical and Electrical APL	27
B-5.2 Ordnance APL	27
B-5.3 Ordnance Alteration APL	27
B-5.4 HM&E Machinery Alteration APL	27
B-5.5 Electronic and Gunfire Control System (GFCS) APLs	28
B-5.6 Electronics Field Change APL	28
B-5.7 Miscellaneous Repair Parts List APL	28
B-5.8 Allowance Components List	28
B-6 POLICY	37
B-7 RESPONSIBILITIES	37
B-7.1 NAVSEA Sustainment Directorate (SEA 06)	37
B-7.2 Ship Program Manager (SPM)	37
B-7.3 Participating Acquisition Resource Manager (PARM)	37
B-7.4 Naval Supervising Activity (NSA)	37
B-7.5 NAVSUP Weapons Supply Support-Mechanicsburg (NAVSUP-M)	37
APPENDIX C Preliminary Allowance Lists	38
C-1 OVERVIEW	38
C-2 DEFINITIONS	38
C-2.1 Interactive Computer Aided Provisioning System	38
C-2.2 Interim Support Items List (ISIL)	38
C-2.3 Mini-COSALs	38
C-2.4 Preliminary Allowance Lists (PAL)	38
C-2.5 Advance RIC	39
C-3 RESPONSIBILITIES	39
C-3.1 Ship Program Manager (SPM)	39
C-3.2 In-Service Engineering Agent (ISEA)	39
C-3.3 Program Support Inventory Control Point (PSICP)	39
APPENDIX D Allowance Equipage List Preparation and Processing	40
D-1 INTRODUCTION	40
D-2 AEL DEFINITION	40
D-3 AEL PREPARATION	41
D-4 POLICY	45
D-5 SCOPE	45
D-6 RESPONSIBILITIES	46
D-6.1 NAVSEA Sustainment Directorate (SEA 06)	46
D-6.2 Ship Program Managers (SPMs)	46
D-6.3 Participating Acquisition Resource Managers (PARMs)	47
D-6.4 Naval Surface Warfare Center Carderock Division	47

D-6.5 Naval Supervising Activity (NSA).....	47
D-6.6 In-Service Engineering Agents (ISEA).....	47
D-6.7 Naval Sea Logistics Center (NSLC)	47
D-6.8 NAVSUP Weapon Systems Support (NAVSUP WSS).....	48
ATTACHMENT 1 NON-AEL WORTHY ITEMS	49
ATTACHMENT 2 INFORMATION ONLY AEL	53

CHAPTER 6

ALLOWANCE DOCUMENTS

6-1 INTRODUCTION.

Navy policy states that each ship entering the Fleet will have accurate and complete allowance lists. This chapter identifies the various allowance lists developed to outfit a ship entering the Fleet. After introducing and defining the allowance lists, this chapter concentrates on the development and maintenance of a ship's Coordinated Shipboard Allowance List (COSAL). This chapter and its Appendices provide the policies and procedures required for the development and maintenance of shipboard allowance lists. It is the responsibility of the Naval Sea Systems Command (NAVSEA) and the Naval Supply System Command (NAVSUP) to assist a ship's crew in achieving an acceptable level of supply readiness. NAVSEA and NAVSUP activities have additional responsibilities in the development of a COSAL for each ship while the ship is under construction and to assist in the maintenance of each ship's COSAL for the life of the ship. A COSAL may be delivered to a ship in either Compact Disk-Read Only Memory (CD-ROM) format or via the Organizational Maintenance Management System-Next Generation (OMMS-NG)/ Maintenance Figure of Merit (MFOM)/R-Supply database. The preferred and most used today is OMMS-NG/MFOM/R-Supply, which allows for automated update and maintenance of ships' installed systems and equipment, as well as allowancing and inventory control of authorized spares and Maintenance Assistance Modules (MAMs).

Note: As delineated in the NAVSEA Organization Manual, the Deputy Commander for Nuclear Propulsion, NAVSEA 08, is responsible for all technical matters pertaining to nuclear propulsion of all U.S. Navy ships and craft, including all aspects of integration of the nuclear plant into the ship's systems. Nothing in this Tech Spec detracts in any way from these responsibilities.

6-2 DEFINITIONS.

The following definitions are provided to establish an understanding of the terminology used in this and other supply related documents:

- a. COSAL. A compilation of data used to describe a ship's allowance of Storeroom Items (SRIs), MAMs, consumables, and Operating Space Items (OSIs). The COSAL is described more fully in Section 6-4 and in detail in Appendix A.
- b. MAM. A part used by maintenance personnel to fault-isolate a system or equipment failure. The same part may also be included as an SRI allowance. However, most MAMs are no longer authorized as separate SRI allowances under the MAMs as Spares Policy.
- c. X-MAM. A unique form of a pseudo-RIC or X-RIC assigned to items identified on equipment/system Allowance Parts List (APL) as MAMs and is formatted to always reflect XM in the first two positions followed by the nine characters National Item Identification Number (NIIN)/National Item Control Number (NICN) (e.g. XM123456789). X-MAMS provide a means to accurately maintain control and visibility of afloat MAMs inventory.
- d. Repair Part. A part that is used to repair a component, module, equipment, or system. Repair parts are consumed and replaced upon failure.

e. Consumables. Materials that are for administrative and general use that are not designed as repair parts.

f. OSI. OSIs are tools and equipment that are in the custody and management of the designated ship's department head.

g. Spares. A term used to describe a ship's allowance of spare and repair parts.

h. SRI. SRIs are allowed spares or repair parts carried in the ship's storeroom(s) or elsewhere in the custody of the Supply Officer. Note: An SRI is also referred to as an On-Board Repair Part (OBRP).

6-3 THE REQUIREMENT.

A ship entering the Fleet must be outfitted with various types of material including: food, fuel, ammunition, sidearms, portable weapons, ship's store resale material, portable equipment of various types, boats, vehicles, deck gear, yellow gear as required, publications, charts, navigational aids, forms, administrative material, personnel support items, library books, recreational equipment, bedding, special clothing, as well as: spares, MAMs, portable test equipment, equipment, special tools, and consumables required for both preventative and corrective maintenance for a specified period of time. The intent is to deliver a ship in a satisfactory state of readiness and to maintain that level of readiness so that the ship can sustain itself in a hostile (wartime) environment for an extended period of time.

These ships will receive a variety of allowance lists as well as a new COSAL. These allowance lists are prepared by various activities and are usually coordinated through the NAVSUP Fleet Logistics Center (FLC), Supervisor of Shipbuilding (SUPSHIP) Team (NAVSUP FST), and the responsible Naval Supervising Activity (NSA). The material required to fill these allowances must be ordered, received, and stored on board the ship.

NAVSUP FST has the responsibility to monitor the completeness of shipboard allowances when ships are undergoing construction or conversion. NAVSUP FST works very closely with the ship's crew and reports the material readiness condition of each ship to the ship's prospective Commanding Officer, the prospective Type Commander (TYCOM), the Ship's Program Manager (SPM), NAVSUP, and Office of the Chief of Naval Operations (OPNAV). The purpose of this monitoring is to ensure that the pre-established material readiness goals and objectives are met for each ship. NAVSUP FST and the NSA have the responsibility to assist the ship in monitoring requirements plus loading and stowing the material involved. NAVSUP FST has the responsibility to represent the ship in matters pertaining to material readiness prior to the arrival of the prospective Supply Officer and prospective Commanding Officer.

6-3.1 Allowance Development Responsibility. The NSA must ensure that ships completing construction, or an availability are properly outfitted to join the Fleet. This activity is also responsible for ensuring that the shipbuilding contractor provides provisioning technical data for Contractor Furnished (CF) systems and equipment (for further details refer to NAVSEA M-4423.1, Provisioning and Allowancing Procedures Manual). In addition, the NSA is responsible for ensuring that system and equipment configuration data is provided so that a COSAL can be developed or updated. For new construction as well as operating ships, configuration data is provided from the Ships' Configuration and Logistics Support Information System (SCLSIS)

through Model Base Product Support (MBPS). The Configuration Data Manager (CDM) is responsible for the management and upkeep of ships' configuration including changes resulting from ship conversions, overhauls, and Continuous Maintenance Availabilities. The CDM processes configuration data into MBPS as the applicable configuration database of record. However, the CDM is no longer responsible for the maintenance or accuracy of logistics information. The authoritative data source is now responsible for linking logistics support information to the equipment in MBPS and is what is being taught in MBPS training classes. For Technical Manuals (TMs) that is the Technical Manual Maintenance Activity (TMMA), for drawings Naval Ships Engineering Drawings Repository (NSED), and when the Planned Maintenance System (PMS) comes in MBPS, that information will also become the responsibility of the authoritative data source.

6-3.2 Allowance Lists. A ship undergoing construction or conversion (ship is either out of commission or in commission special) will receive a complete fitting out prior to joining the Fleet. These ships will receive a variety of allowance lists as well as a new COSAL. The material required to fill these allowances must be ordered, received, and stored on board the ship. The various allowances are defined below.

6-3.2.1 COSAL. The COSAL is the primary allowance document for the ship. The COSAL defines the allowance for spares, MAMs, equipment-related consumables, and OSI. The COSAL structure and each of the component sections are described in detail in Appendix A. The COSAL is prepared by NAVSUP Weapons System Support-Mechanicsburg (NAVSUP WSS-M) by extracting data from the Enterprise Resource Planning (ERP) system and MBPS. Various computational models are used to compute COSAL allowances. For OMMS-NG/MFOM/R-Supply ships, "automated" COSAL databases are developed for shipboard initialization and implementation. These databases are subsequently updated with configuration, logistics and allowance support data via the Automated Shore Interface (ASI) process provided to ships that have the OMMS-NG/MFOM/R-Supply data systems installed.

6-3.2.2 MAMs. As described above, MAMs allowances are included in the COSAL. However, due to limitations on accurate maintenance of these allowances resulting from configuration changes (e.g., equipment adds or removals, and alterations) and the lack of accurate inventory aids, the X-MAMs process was developed and implemented. Under this process all items identified as MAMs on equipment/system APLs are assigned a unique pseudo-RIC (referred to as an X-MAM) allowing the creation of separate configuration records for each MAM equipment/system application in MBPS and subsequent in OMMS-NG/MFOM. As a result, MAMs are tied to their parent equipment/system APL and are updated based on the status of the parent equipment including adds, deletes and alterations. Further, the X-MAM configuration record is the basis for identifying a ship's overall allowance. This is accomplished based on a roll up of the individual MAM configuration records in MBPS which is provided to the ship as an R-Supply Stock Record File (SRF) transaction.

6-3.2.3 General Use Consumables List (GUCL). The GUCL is a one-time allowance document for non-equipment related, general use consumable items that are not identified on an APL/Allowance Equipage List (AEL). It is intended to support the first 90 days endurance period. The GUCL is reviewed for applicability by the prospective Supply Officer and

NAVSUP FST. The range and depth of items listed are adjusted based on the ship's operational requirements. The GUCL allowances are not included in OMMS-NG/MFOM/R-Supply because it is not a fixed allowance, and no inventory control is maintained on the items listed. Refer to NAVSUP P488 Chapter 6 for additional information.

6-3.2.4 Ship Portable Electrical/Electronic Test Equipment Requirements List (SPETERL). The SPETERL identifies the latest known test equipment required to perform preventive and corrective maintenance at the organizational and intermediate maintenance levels on a total ship basis. The SPETERL includes Special Purpose Electronic Test Equipment, Built In-Test Equipment, and selected Mechanical Test Instruments. The SPETERL provides information about test equipment quantities required and reported on board, equipment/system application, associated AEL numbers, suitable substitutes, and excess/deficiency status. The SPETERL is prepared by the Naval Weapons Station, Earle, based on the Equipment Identification Number (EIN) of the configuration data recorded in the EIN field from MBPS.

6-3.2.5 Food Allowance. A ship's allowance of food is based on the ship's cyclic menu developed by the ship. Development of initial food allowances is the responsibility of the ship's Supply Officer. The ship is assisted by NAVSUP FST in preparing menus and load-out of required quantities. The NSA may be called on to assist in arranging for the shipbuilding contractor to provide pier side services in physically loading food into the ship. Food preparation equipment and serving equipment are part of the ship's COSAL and are provided as installed equipment and equipage. Refer to NAVSUP P486 Food Service Management for additional information.

6-3.2.6 Navy Resale Allowance. The initial allowance of resale goods is computed by establishing a dollar amount for each person on board. The ship's Supply Officer is responsible for ordering the material required to support the crew for an initial period of time. The ship is assisted by NAVSUP FST in determining levels of materials required. Spares to support installed equipment required in the operation of resale activities (e.g., laundry machines, presses, refrigerators, freezers, barber chairs) are provided through the COSAL. Certain specialized equipment (e.g., soft drink vending machines, sundae dispensers, and popcorn machines) must be purchased by the ship through an advanced loan from the Navy Exchange Service Command (NEXCOM). Refer to NAVSUP P487 Ships Stores Afloat for additional information.

6-3.2.7 Forms and Publications. Refer to applicable agency's (Department of Defense, Defense Logistics Agency or Navy) website to obtain desired information.

6-3.2.8 Oceanographic Materials. The initial allowance of oceanographic materials (e.g., charts, notices to navigators) is defined by the local oceanographic office and the ship's Navigator. The initial allowance of oceanographic materials is based on the ship's predicted operational area. The operational area is based on information provided to the ship's navigator by the TYCOM responsible for the ship's schedule and operational requirements. Navigational aids and equipment (e.g., plotters, dividers, compasses, chronometers, parallels) are part of the installed equipment with loose items being defined on AELs in the OSI section of the COSAL.

6-3.2.9 Photographic Equipment and Supplies. Photographic equipment and supplies are managed and controlled by NAVSUP WSS-Philadelphia, and are provided to a ship based on a products list provided by NAVSUP WSS-P. For SSN-688 class submarines and nuclear aircraft carriers (CVNs), an AEL is provided to document this allowance. The equipment is considered equipage and is signature controlled. The amount of photographic equipment and film provided is based on the mission of the ship and whether it has a mission to gather photographic intelligence.

6-3.2.10 Material Handling Equipment (MHE). Not all ships carry MHE and must rely on assistance from the ashore support community. However, Mobile Logistic Support Force (MLSF) ships, Amphibious Force ships, and Aircraft Carriers do have an allowance for MHE. The type, size, and number of MHE carried on a ship relates directly to the ship's mission. Ships that are authorized MHE are provided with this equipment from an equipment pool. The equipment pool is responsible for major repairs and maintenance. The ship having the MHE is responsible for routine maintenance. MHE is supported by APLs and spares are provided through the ship's COSAL. Ships should store MHE spares so they can be easily identified and removed because MHE is frequently traded to the ashore community for functionally similar equipment and supporting spares are seldom interchangeable.

6-3.2.11 Automotive Equipment. Most large ships have an allowance for official vehicles. The number and type of vehicles assigned to a ship depends on the size of the ship and the seniority of the Commanding Officer. These vehicles are used in attending official functions and are assigned by OPNAV. Automotive equipment is normally provided by the homeport ashore-based Public Works activity. The NSA's involvement will be in assisting the ship to load the vehicles or arranging for parking space adjacent to ship or office provided to the ship's crew.

6-3.2.12 Yellow Gear. Usually defined as equipment used in the handling of aircraft. Ships that have aircraft embarked as part of their primary mission will normally have an allowance of yellow gear. This equipment consists of tractors, bomb trailers, dollies, crash equipment, cranes, and aircraft engine lifts. These allowances are developed under the direction of the Naval Air Systems Command (NAVAIR).

6-3.2.13 Library Allowance. Each ship entering the Fleet is outfitted with a library to provide recreational reading and reference documents for personnel assigned to the ship. A library can range in size from a few hundred books to thousands. A ship's allowance of library books is developed by the Naval Personnel Command based on the number of personnel assigned to the ship and the space allocated to the library on the ship. The NSA's role is to support in providing assistance to the ship through the shipbuilder in loading and stowing the books in the space assigned.

6-3.2.14 Medical and Dental Allowance. The ship's medical and dental allowances are developed in coordination with the applicable TYCOM(s) and executed by the Navy Medical Readiness Logistics Command Detachment Fort Detrick (NMRLC-DET FTD) and NAVSUP WSS. The medical and dental equipment assigned to a ship is determined by several factors: 1. Size of the ship, 2. Whether a doctor or dentist will be assigned to the ship on a regular basis, 3. Space allocated to medical facilities on the ship, and 4. Whether the ship is being fitted out for a

specific purpose. Once a determination is made as to the extent of the medical and dental requirements, Government Furnished Equipment (GFE), Contractor Furnished Equipment (CFE) will be provided by the respective ship building contractor to be installed. Medical supplies and instrument requirements are identified and provided based on authorized allowances by NMRLC-DET FTD. The NSA responsibility consists of receiving the medical and dental equipment to be installed and providing it to the shipbuilder for installation. If the ship is outfitted in the building yard, extreme care must be taken in providing proper storage for medical supplies and providing secure storage for controlled medicinal items. Updates to medical and dental allowances come from the TYCOM(s) and executed by both NAVSUP WSS and NMRLC-DET FTD. Currently, NAVSUP WSS updates, medical and dental SRI allowances for two (2) – thirty-seven (37) AEL's (Large Decks e.g. Amphibious and CVNs) via the OMMS-NG/R-Supply. ASI process and NMRLC-DET FTD provides Authorized Medical Allowance List/Authorized Dental Allowance List (AMAL/ADAL) SRI updates to Surface Forces "small boys" and OSI to all ships via a SNAP Automated Medical System (SAMS) website link.

6-3.2.15 Flight Deck and Hangar Deck Handling and Safety Gear. The development of an allowance list for spares for the flight and hangar deck needs to be carefully developed. The equipment installed is normally provided to the shipbuilder by the Navy. However, due to its uniqueness (developed by NAVAIR installed by a NAVSEA shipbuilder), it can be overlooked. Equipment such as aircraft starters, aircraft tie downs, aircraft refueling equipment, landing lights, deck edge lights, etc., all require special attention. The NSA must ensure that the spare and repair parts required for maintenance of this equipment are included in the Aircraft Launch and Recovery Equipment (ALRE). The supporting spares and material will be included in the COSAL or OMMS-NG/MFOM/R-Supply. The spares and materials provided for these systems and equipment must be segregated but stored as part of a ship's permanent allowance.

6-3.2.16 Helicopter Landing Aids and Refueling Systems. Many ships in the Fleet have helicopter landing decks and/or some capability to refuel helicopters while hovering over the stern of the ship. Ships with helicopter landing platforms have allowances that support their aviation capability. The NSA must ensure that any spare or repair part provided in support of the equipment installed is included in the ship's allowance. Helicopter refueling equipment is unique but is normally provided through the COSAL. When a helicopter is assigned to a non-aviation ship, the spares and materials required for maintenance of the helicopter are brought aboard in a pack-up kit which is removed when the helicopter disembarks from the ship.

6-3.2.17 Aviation Consolidated Allowance List (AVCAL). Ships that have primary missions to support aircraft normally have an AVCAL. The AVCAL is prepared by NAVSUP WSS-P to support the mix of aircraft to be deployed. Aviation allowed spares are stored in specialized cabinets that can be removed from a ship when the aircraft deck load changes and the AVCAL is revised/updated. AVCAL allowances are recorded in R-Supply under a separate Allowance Type Code to differentiate it from COSAL allowances.

6-3.2.18 Intermediate Maintenance Allowances. Intermediate maintenance support ship types such as Submarine Tenders, and occasionally other ships designated as repair ships are outfitted with the necessary installed equipment to accomplish intermediate maintenance. While the ship's COSAL includes the necessary tools, test equipment, and spares to support this installed

equipment, these ships also receive a Tender Load List (TLL) of demand-based spearing and consumables required to perform intermediate maintenance on ships it supports. The TLL is funded through the Navy Working Capital Fund (NWCF) and is not considered to be a part of the ship's COSAL. The NSA has the responsibility to ensure that the equipment, test equipment, and tools required to perform intermediate maintenance are identified on an AEL and are included in the ship's COSAL. Particular care must be exercised to ensure compatibility of the tools with the equipment supported. For example, the lathe cutters must fit the lathe installed. Ships supported by a TLL use R-Supply to account for their allowances, which are differentiated from standard COSAL allowances by Allowance Type Codes (ATC).

6-3.2.19 Flag Allowances. Ships that are fitted out as flag ships (a flagship is a vessel used by the commanding officer of a group of naval ships) require additional allowances of personnel support equipment. The NSA is responsible for determining the size of the flag spaces and select AELs to provide allowance documentation for the flag allowance to be included in the OSI portion of the COSAL.

6-3.2.20 Welfare and Recreation. The NSA is responsible for determining and providing the initial allowance of welfare and recreational equipment and supplies. The NSA will work directly with the ship to determine what is required and provide a local allowance that can be used to purchase the needed materials.

6-3.2.21 Loose Items List. In the construction of a ship, there are items that are spelled out in the ship's specifications that are an integral part of the installed equipment. These items are not always attached to the system or equipment; however, they need to be on board the ship to ensure proper operation. Due to timing, the NSA will develop a Loose Items List that is used for loading purposes only. Most of the loose items should be supported on an AEL but are not included in the COSAL at the time the ship is delivered. The NSA shall take action to review the Loose Items List and prepare the proper documentation to enter the items into the COSAL.

6-3.2.22 Hazardous Material (HAZMAT). Only HAZMAT approved and authorized by the Ship Hazardous Material List (SHML), Class/Type SHML (T-SHML) or the Submarine Material Control List (SMCL), as applicable, is to be procured and loaded onboard new construction ships via Hull Unique consumable HAZMAT AELs. These AELs establish the range and depth of HAZMAT for a particular ship and are now being developed to facilitate this effort. Inventory of HAZMAT is managed in accordance with established directives and local procedures. NAVSUP P488 eliminates HAZMAT from the GUCL and endorses the establishment of a ship tailored AEL for authorization and management of consumable HAZMAT allowances.

6-3.3 Configuration Status Accounting (CSA). MBPS is the Navy's official CSA database which is used to record and maintain the configuration of systems and equipment that are installed onboard U.S. Navy Ships during new construction and throughout its lifecycle. MBPS provides Ship's SCLSIS baseline data necessary to extract initial COSALs and provide follow-on updates as required. MBPS is used to record and maintain the configuration and logistics data of systems and equipment that are installed in a ship during new construction.

6-3.4 The MBPS Database. The MBPS database is maintained by CDMs who are assigned by the SPM to support specific classes of ships. An overview of the SCLSIS process and procedures is provided in the Ship Configuration and Logistics Support Information System (NAVSEA Technical Specification 9090-700 Series). The importance of MBPS configuration data cannot be over emphasized. If the configuration data for systems or equipment are not entered or are entered incorrectly, a ship's COSAL will be either incomplete and/or the ship will have the wrong mix of spares, OSI, and MAMs on board. Under the X-MAM initiative, a new "XM" APL record is created for each allowed MAM onboard. "XM" APLs are initially populated with data from the parent APL and can be updated by the ship to reflect information more accurately regarding all MAMs onboard.

6-3.5 Navy Enterprise Resource Planning (ERP) System. Navy ERP is an integrated financial, acquisition, and logistics information technology system that provides financial and budgetary management for all Navy System Commands (SYSCOMs). Navy allowancing relies on both MBPS and ERP data bases for determining allowancing requirements.

6-3.5.1 Allowance Parts List (APL). The provisioning process provides system and equipment characteristics, plus spares information. This data is loaded into ERP and becomes the basis for development of APLs and Preliminary Allowance Lists (PALs). The provisioning process is covered in detail in NAVSEA's Provisioning and Allowancing Procedures Manual. APLs are prepared using provisioning data loaded into ERP. APLs are an integral part of a COSAL and list both the technical characteristics of a specific system or equipment as well as the logistical coding required to provide supply support for the associated system or equipment. APLs also identify all maintenance significant parts as well as approved maintenance decisions or codes to indicate the lowest level authorized to remove, replace, or repair an item. Note: All items listed are allowance candidates; however, except for items required for safety of a ship or its personnel and preventative maintenance, only those that meet the criteria of the COSAL computational model will be authorized as OBRPs. Safety and PMS items are coded-with a technical override and specified quantity in ERP to ensure an authorized allowance in the COSAL, OMMS-NG/MFOM/R-Supply database or both. Appendix B provides APL preparation and processing guidance.

6-3.5.2 Preliminary Allowance List (PAL). When the supporting documentation and provisioning data required to develop an APL for a system or equipment is not available by the first installation date of a system or equipment, a PAL will be developed. A PAL is a supply support document, published in APL format, that delineates the repair parts, MAMs, and special tools required to operate a system or equipment from the first installation date until an APL is developed and placed in the COSAL. When an APL is developed to replace a PAL, the APL shall be assigned the same RIC number as the PAL. Appendix C provides PAL preparation and processing guidance.

6-3.5.3 Allowance Equipage List (AEL). An AEL is an allowance document prepared to provide operational support for various categories of non-installed components collectively known as equipage. An AEL may be related to a system or equipment, personnel, general requirements, damage control, ship, or specific function. AELs do not provide spares that are embedded in a

system which are needed to meet maintenance requirements. Appendix D provides AEL preparation and processing guidance.

6-3.5.4 Advance Repairable Identification Codes (RIC). An Advance RIC is assigned when a system or equipment is being installed on a ship, but an APL or PAL has not been developed. The Advance RIC is assigned to facilitate CSA by allowing the establishment of a ship configuration record in MBPS and the ERP. An Advance RIC is normally a precursor to the development of the final APL or PAL carrying the same RIC and provided to the Fleet via subsequent COSAL maintenance (e.g., ASI or COSAL In Access (CIA)). Note: Not all Advance RICs become APLs.

6-3.5.5 Allowance Components List (ACL). An ACL is a system validation aid prepared for variable installations of electronic systems. It also performs the function of tying together large systems supported by more than one APL. The ACL contains a list of component APLs with APL/AEL identification numbers as well as components not supported by an APL. A single installation may not contain all the components listed on the ACL. ACLs do not provide COSAL Support. Validation of each component is required. ACLs frequently contain additional ACLs which must be used by validators to accurately define each ship's specific configuration. This will ensure proper COSAL support.

6-4 CONSOLIDATED SHIPBOARD ALLOWANCE LIST (COSAL).

The COSAL provides the characteristics data of the systems and equipment installed on a ship and identifies the material required to operate and maintain the ship. The COSAL specifies the range and depth of spares, special tools, tools, test equipment, MAMs, equipage, and consumables required to make a ship self-sustaining for a specified period of time. A COSAL is a comprehensive document that is delivered to the applicable ship via data transfer when the ship has OMMS-NG/MFOM/R-Supply or via Military Address System (MADDS) when the ship is not automated. All ships in the Fleet are now outfitted with OMMS-NG/MFOM R-Supply, so most COSALs are now delivered via that mode. The term "maintain" is of special significance in COSAL development because any spares, special tools, MAMs, as defined in the COSAL are placed there to support maintenance requirements. To achieve an acceptable level of supply readiness, a COSAL must be accurate, comprehensive and tailored to the configuration of installed systems and equipment and a ship's maintenance capability. The COSAL is developed through a joint effort of both the engineering and logistics communities. Procedures for the development and maintenance of a COSAL are contained in Appendix A, "Coordinated Shipboard Allowance List Preparation and Processing". The paragraphs below explain the policies required to develop and maintain a COSAL.

6-4.1 COSAL Derivations. The COSAL is derived through a computational model process that computes levels of spares, OSI, and MAMs. The computational math models currently being used to compute COSALs are:

- a. Price Sensitive Fleet Logistics Support Improvement Program (PS FLSIP .5 PLUS)
- b. .5 FLSIP PLUS
- c. .25 FLSIP
- d. .10 Modified FLSIP (MOD-FLSIP)
- e. Readiness Based Sparing (RBS)
- f. TRIDENT

While there are variations in computational math models used to compute a COSAL, the data input to these models are extracted from MBPS, and ERP. The Price Sensitive .5 FLSIP PLUS Model is the current Navy standard.

6-4.2 Allowance Computation. Allowances published in a COSAL are computed using ship tailored configuration data and processed through a Chief of Naval Operations (CNO) approved computational math model. The COSAL development process uses ERP/MBPS data, APL Component Characteristic File (CCF) data from ERP Level "C," and NIIN data from the Management Information File (MIF) to compute authorized OBRP allowances. Regardless of which math model is used, ERP Level "C" and MIF data tailored to a ship's equipment/ system configuration in the ERP/MBPS drives the allowance development. Supporting APL/AEL, installed population data is extracted to compute an allowance of spares, MAMs, special tools, equipage, and consumables. The accuracy of a COSAL depends on the accuracy and completeness of the files from which it is computed. The range and depth of items allowed are based on the rules and parameters of the computational math model used.

ERP Level A is updated by MBPS and is a partial (not as extensive or robust) replication of ships, system and equipment configuration. While the supporting RIC or APL is identified to each ships' configuration record, the actual replacement parts, maintenance and item management data on each system or equipment is in ERP Level C and the MIF: all tied together by the RIC/APL number.

Note: AEL items are not computed but are taken from the quantity in the AEL column number identified to the associated ship in MBPS.

6-4.3 Allowance Maintenance. COSAL support is dynamic and requires constant update/maintenance to keep pace with system and equipment configuration changes over a ship's life cycle. In addition to COSAL maintenance triggered by alteration and modification of systems and equipment, allowances and management information updates are provided for changes to supporting documents (e.g., APLs, PALs, and AELs) including spare part adds, National Stock Number supersession, price etc. These continuous updates to OMMS-NG/ MFOM/R-Supply databases are collectively known as ASI data. The ASI file is now provided back to the ship via the Joint Technical Data Integration file transfer utility.

6-5 POLICY.

The policy delineated below shall be followed in the development and maintenance of allowances.

6-5.1 Allowance Policy. Each U.S. Navy ship, craft, or boat shall have an accurate and complete allowance that defines the materials and spares required for operation and maintenance. These allowances shall be developed and maintained in a current state as described in the following subparagraphs and the appropriate Appendices. COSAL data and data systems shall be automated to the extent possible.

6-5.1.1 Ships Allowance. Each ship shall have a COSAL developed while it is undergoing construction, and the COSAL/R-Supply data must be on board before the ship is delivered to the Fleet. The COSAL/R-Supply shall be maintained in a current state throughout the life cycle of the ship. A ship's COSAL shall define the spares and materials required to make a ship self-sufficient for a sustained period of time. Procedures for the preparation and maintenance of a COSAL are contained in Appendix A.

6-5.1.2 Boats and Craft. Per OPNAVINST 4780.6G of 3 June 21, each boat or craft shall be supported in MBPS. The following policy shall apply for boat APLs:

- a. Each boat or craft shall have a Boat APL developed for each boat Hull Registry Number, that defines, at minimum, those items and equipment required for the safety and operation of the boat.
- b. Each system or equipment installed in a boat assigned to a ship shall have an APL that defines supply support for that system or equipment.
- c. A boat or craft shall have an AEL developed that defines equipment required for the safety and operation of the boat.
- d. Spares required to support systems and equipment installed in a boat assigned to a ship shall be included in a ship's COSAL.
- e. Spares to support a boat assigned to a Boat Pool shall be included in a COSAL for the Boat Pool.
- f. When circumstances dictate that a boat or craft will operate independently, a separate boat COSAL may be developed for the boat or craft.
- g. Boats operating as a squadron or group shall be supported through a COSAL developed for the activity to which the boat or craft is assigned.
- h. Boats assigned to shore stations or activities shall be supported through a COSAL developed for the activity to which the boat or craft is assigned.

6-5.2 APL Policy. Each system or equipment installed in a ship shall have an APL prepared that lists all maintenance significant parts embedded in the end item.

6-5.3 PAL Policy. A PAL shall be developed for each system or equipment that will not have an APL developed by its installation date. A PAL may also be required to provide supply support for alterations to existing systems or equipment.

6-5.4 Configuration Data. Configuration change planning and status accounting databases (e.g., NDE-NM, MBPS, ERP) will reflect the most current information from the time they are initialized until a ship is removed from the Navy record. Configuration changes shall be recorded in a ship's configuration records as soon as they are known (e.g., planned), but no later than the date of actual installation. These configuration changes may be caused by installation of new or additional systems or equipment, removal of systems or equipment or by making an alteration to an existing system or equipment. The processes for reporting configuration changes are contained in Technical Specification 9090-700 (Series).

6-5.5 Ships in Construction. For ships in new construction, COSALs are produced incrementally as system and equipment provisioning is processed and configuration identification is finalized. Incremental COSALs consist of COSAL indexes and an Incremental Stock Number Sequence List (ISNSL). Incremental COSALs are developed by NAVSUP WSS based on a schedule established by the SPM. Although this will vary by ship type and program, the norm is to schedule four incremental COSALs for lead hulls and three for follow-on ships. The configuration baseline for incremental COSALs is recorded and maintained in the designated CSA system. Funding of spares required to fill incremental allowances is outlined below.

6-5.5.1 Contractor Furnished Equipment (CFE). Allowances for CFE (i.e., spares, equipage and MAMs required to support systems and equipment acquired and installed by the shipbuilder) shall be purchased and provided by the shipbuilding contractor. The shipbuilder shall purchase and provide only those OBRPs (spares), equipage and MAMs listed in the ship's COSAL as defined in each COSAL increment or emergent allowance document not meeting the cut-off for the COSAL.

6-5.5.2 Government Furnished Equipment (GFE). Allowances for GFE (i.e., spares, equipage, and MAMs required to support systems and equipment acquired by the Government and installed by the shipbuilding contractor) shall be funded through the Shipbuilding and Conversion, Navy (SCN) outfitting allotment. The NSA monitoring a ship's construction is responsible for requisitioning the material designated as Government Furnished (GF). Normally this material is ordered by the NSA and shipped to the shipbuilder for integration into the ship's storeroom mock-up.

Note: Although the NSA orders most of the SRI/OSI/GUCL etc. there are many items identified as GF that are not ordered by the NSA (i.e., Interim Supply Support (ISS) equipment and material).

6-5.5.3 Equipage and Consumables. Allowances of GF equipage and consumables shall be funded by the SCN outfitting allotment. Equipage and consumables designated as CF are acquired and funded by the shipbuilder.

6-5.6 Initial COSALs. The final complete COSAL, commonly referred to as the initial Load COSAL, shall be extracted as scheduled by the NSA and the SPM. The load COSAL is normally extracted approximately eight to twelve months prior to delivery concurrent with the final incremental. SPMs for various ship types establish a schedule compatible with their requirements. Initial GF spares, GF equipage, GF equipage, and GF consumables are funded by

the SCN outfitting allotment. The SCN outfitting allotment provides initial GF supply support until the ship reaches the SCN Obligation Work Limiting Date (OWLD), usually delivery plus 13 months. After OWLD is reached, all subsequent allowance material is funded by the Active Fleet Outfitting Account using the Other Procurement, Navy (OPN) appropriation.

6-5.7 OMMS-NG/MFOM Program. OMMS-NG/MFOM shall be initialized, concurrent with the development and processing of the Load COSAL for a ship under construction. This usually occurs at End of Construction ~ 8 months.

6-5.8 COSAL Maintenance. Maintenance of COSAL records is dynamic with changes recorded as they occur. COSAL maintenance is driven by changes to system and equipment configuration and APL updates that result in the need for new and additional spares and MAMs.

6-5.8.1 COSAL Change Data. COSAL change data is tailored to a ship and only addresses those changes that affect the ship receiving the data. It includes adds and deletes to the system and equipment configuration files and identifies any new (adds) spares required to maintain the added system and equipment. This information is sent to the ship via the ASI process and is loaded to OMMS-NG/MFOM/R-Supply. Allowance adds not satisfied with existing on-hand/on-order assets result in the submission of outfitting requisitions generated by the R-Supply/Reorder Review process. Manual ships should prepare manual requisitions for any added spares. The requisitions for added spares are to be forwarded to the Technical Operating Budget (TOB) holder for processing. Spares that no longer have application to the ship are identified in R-Supply as on-board excess (AT6) eligible for offload, at the next available opportunity. Often this does not occur until the ship goes through its next availability.

Note: Ships' allowance adds/increases shall be funded by one of the NAVSEA Outfitting Accounts. The SCN allotment will be used prior to the OWLD with OPN funds applied thereafter. However, MAMs are not funded by either account as well as OSI is not funded by OPN.

6-5.8.2 COSAL Updating Periodicity. The primary update of ships COSAL is bi-monthly ASI for OMMS-NG (configuration) and APL updates. For non-automated ships, updating a ship's COSAL is done quarterly via COSAL In Access (CIA).

6-5.8.3 NSA/Integrated Logistics Overhaul (ILO) and Planned Maintenance Review (PMR). An ILO type function is being performed during long availabilities/overhauls or major modernization periods. The depth of repair part review is lower. However, they continue to be performed for most submarines and on an exception basis for surface fleet ships. In addition to configuration, Tech Manual (TM) and PMS analysis, a ship's COSAL is updated and its inventory of OBRPs and MAMs adjusted accordingly during an ILO. COSAL update/maintenance is performed using routine ASI. Increases in the OBRP allowances are funded by the NAVSEA outfitting allotment. For most active Fleet ships, the allowance changes will be funded by the OPN appropriation. If the availability being supported by the NSA/ILO is being funded out of the SCN appropriation, then allowance changes will also be funded by the SCN appropriation. For short availabilities, a PMR is conducted. Similar to an ILO, PMRs include configuration, Tech Manuals, PMS and COSAL analysis and update. However, it is

performed on specific equipment/systems based on TYCOM sponsored ship/fleet assessments like Top Management Attention/Top Management Issues, which identify problem systems in need of logistic support oversight and enhancement. In addition to the latter, PMRs include X-MAM implementations and processing of T-ART ASIs (as scheduled).

6-6 RESPONSIBILITIES.

Each activity cited below performs the functions assigned to them and provides the necessary data and documents required to develop and maintain a ship's COSAL for each ship's life cycle.

6-6.1 NAVSEA Sustainment Directorate (SEA 06) shall:

- a. Provide policy and guidance to ensure that each ship has an accurate and complete COSAL when it is delivered to the Fleet and that each ship's COSAL is accurately maintained for the life cycle of the ship.
- b. Budget for and fund initial supply support to ensure that each ship achieves a satisfactory level of supply readiness for each system or equipment installed in a ship and for the entire ship as a whole. These funding responsibilities start while the ship is under construction and continue throughout the ship's life cycle.
- c. Administer the allowance preparation effort of NAVSEA activities to ensure strict compliance with the provisions of this Tech Spec. Providing guidance and direction to activities and commands involved in the development and maintenance of a COSAL.
- d. Coordinate with other systems commands to ensure that activities under their command and control adhere to the requirements of this Tech Spec.
- e. Maintain interface with ships, Fleet Commands, other System Commands, In-Service Engineering Agents (ISEAs), Technical Support Activities (TSAs), Program Support Inventory Control Points, NSAs, CDMs, and other activities as necessary to ensure that ships receive state-of-the-art COSALs.
- f. Establish and maintain Logistics Centers of Excellence (LCOE) that are responsible for maintaining logistics procedures, accurate data systems, and databases.

6-6.2 Ship Program Managers (SPMs) shall:

- a. Ensure that the requirement for logistics data is included in contracts for ship construction, conversion, overhauls and availabilities, as well as contracts for systems and equipment that will be installed in U.S. Navy ships. These data requirements shall include Provisioning Technical Documentation (PTD), configuration data, supplemental data (i.e., drawings, specifications, sketches, etc.) as necessary to develop an APL, AEL, or PAL to be used in developing a complete and accurate COSAL.
- b. Ensure that each ship under their cognizance has a complete and accurate COSAL. Include the requirements for the contractor to develop and provide configuration and provisioning data in ship construction contracts, ship conversion contracts, ship maintenance/modernization contracts.
- c. Ensure that activities responsible for COSAL development and maintenance use the guidance provided in this Tech Spec.
- d. Provide guidance to NSAs responsible for ships undergoing construction, conversion, overhauls, and availabilities to obtain and provide data required for the development of a ship's COSAL.

e. Provide direction to Participating Acquisition Resource Managers (PARMs) in obtaining and providing the data required to provision and develop APLs, PALs, and AELs for GFE.

f. In coordination with SEA 06, provide direction to CDMs with respect to the maintenance and accuracy of SCLSIS data necessary to support COSAL update.

g. Schedule COSAL and incremental COSAL extraction dates to coincide with each New Construction/Conversion ship's schedule.

h. Monitor PARMs, shipbuilders, ship overhaul and repair contractors, NSAs, CDMs, and ship maintenance activities to ensure that configuration and provisioning data is submitted in a timely manner.

6-6.3 Participating Acquisition Resource Managers (PARMs) shall:

a. Use the policies, procedures, and responsibilities defined in this manual to provide data required to prepare and maintain a ship's COSAL.

b. Include configuration and provisioning data requirements in each contract for systems and equipment so that an accurate and complete APL can be developed for each system or equipment acquired (refer to the Provisioning and Allowancing Procedures Manual for provisioning requirements).

c. Assign a TSA to be responsible for provisioning a system or equipment and to provide supply and technical coding for each part embedded in systems or equipment being acquired. This requirement also applies to alterations to existing systems and equipment.

d. Interface with NAVSUP WSS to ensure that an APL or PAL is developed as appropriate or an Advance RIC is assigned.

e. Require ISEAs and TSAs to develop data for equipment related AELs.

6-6.4 Naval Support Activity (NSA)/Supervisor of Shipbuilding (SUPSHIPS) shall:

a. Ensure that shipbuilders, ship overhaul and repair contractors, and Naval Shipyards provide provisioning data in a timely fashion so that CF systems and equipment installed in a U.S. Navy ship are supported with either an APL or a PAL prior to joining or rejoining the Fleet. When this is not possible, an Advance RIC will be used.

b. Ensure that shipbuilders and ship repair contractors provide an initial allowance of OBRPs for CFE installed. Note: need to validate during an overhaul/maintenance availability.

c. Ensure that configuration data is entered into MBPS for systems and equipment that are installed while a ship is undergoing construction.

d. Monitor the CSA file for each ship under construction using MBPS. MBPS provides configuration, logistics and installation data for both CFE and GFE.

e. Prepare AELs for selected GF components while ships are under construction. The NSA is responsible for identifying the proper AEL to be used in developing a ship's COSAL. The NSA is responsible for ship and personnel oriented AELs. ISEAs and PARMs are responsible for developing AELs for combat systems, mission related systems and equipment and other GFE provided to the shipbuilder for installation. The NSA is responsible for identifying these AELs and ensuring the ship is a registered user of the AEL in MBPS.

f. Assume responsibility for COSAL completeness and accuracy.

g. Take expeditious action to correct all COSAL discrepancies. Scheduling ISNSLs for ships under construction.

h. Validate the configuration of systems and equipment being installed in a ship.

- i. Monitor the actions of the shipbuilding or ship repair contractors to ensure that the installation and logistics data being provided is correct and accurate.
- j. Assist in the transition of the MBPS file into the MBPS database so that the database reflects the correct configuration baseline is recorded.
- k. Report completed configuration additions and deletions to the CDM for ships in conversion, overhauls and availabilities.
- l. Participate in Configuration Quality Reviews (CQRs) as directed by the SPM.
- m. Ensure that a new ship's initial allowances of OBRPs are filled and on board a ship prior to the ship departing the ship builder's yard.
- n. Process Incremental COSALs and the initial load COSAL to ensure that initial allowances of OBRPs, OSI, MAMs and Consumables are on board when a new ship joins the Fleet.
- o. Act as field monitoring and reporting representative of NAVSUP to ensure that only HAZMAT approved and authorized by the Ship Hazardous Material List (SHML), Temporary-Ship Hazardous Material List (T-SHML), or the Submarine Material Control List (SMCL), as applicable, is procured and loaded onboard new construction ships. Hull unique consumable HAZMAT AELs, which establish the range and depth of HAZMAT for a particular ship, are now being developed to facilitate this effort. Additionally, ensure that inventory of HAZMAT is managed in accordance with established directions and local procedures. Particular emphasis should be placed on HAZMAT inventory reduction and quality along with shelf-life of material.

6-6.5 NAVSUP Fleet Logistics Center (FLC). FLC activities assist ships in the validation and updating of the ships COSAL and verifying that a ship's allowance of OBRPs are consistent with its updated configuration data. FLC shall:

- a. Review, analyze and correct a ship's existing configuration records to ensure that COSAL database is complete and accurate.
- b. Identify and acquire Tech Manual (TM) and PMS documentation deficient for existing equipment.
- c. Follow established procedures as directed by the Fleet commands.

6-6.6 Technical Support Authority (TSA) shall:

- a. Receive and review PTD and assign technical codes as required to complete the provisioning process to develop an APL, AEL, or PAL (refer to the Provisioning and Allowancing Procedures Manual for full discussion of provisioning).
- b. Provide interim provisioning data sufficient for developing a PAL when an APL will not be available by the installation date of a system or equipment.
- c. Provide configuration data to the CDM for all systems or equipment under their cognizance.
- d. Determine the need for a system or equipment related AEL by reviewing system and equipment plans, drawings, specifications, and manufacturer's technical manuals. Accurately identify input and requirements to NSLC or NAVSUP WSS when it is determined that a system or equipment AEL is required. Provide recommended changes to AELs whenever a system or equipment receives an alteration or design change.
- e. Review APLs, PALs, and AELs to ensure they are valid and that they provide the spares, MAMs OSI, equipage, and consumables required to operate and maintain the system or equipment they support.
- f. Participate in COSAL Quality Reviews (CQRs).

The TSA roles and responsibilities are more defined in the Provisioning and Allowancing Procedures Manual.

6-6.7 Configuration Data Manager (CDM).

The CDM is responsible for providing configuration data via the Ship Configuration and Logistics Support Information System (SCLSIS) as set forth in the SCLSIS Technical Specification 9090.700 (Series). By maintaining the MBPS configuration database in a current and accurate state, the CDM is a vital link in allowance preparation. The CDM shall:

- a. Promptly update MBPS database to reflect equipment and system installations, removals and modifications, and alterations including supporting logistics data for the life cycle of each ship assigned.
- b. Chair CQRs as directed by the SPM.

6-6.8 NAVSUP shall:

- a. Ensure that all activities under its command adhere to the policies and procedures set forth in this Tech Spec.
- b. Interface with NAVSEA to develop allowance preparation and maintenance policies and procedures.
- c. Administer the COSAL production effort performed by NAVSUP WSS and other NAVSUP field activities to ensure strict compliance with the policies and procedures set forth in this manual.
- d. Coordinate the NAVSUP FST and the NAVSUP WSS Platform Managers responsibilities for New Construction Ships.
- e. Collaborate with NAVSEA in the issuance of revisions to this Tech Spec.

6-6.9 Naval Information Warfare Systems Command (NAVWAR).

NAVWAR will issue directives to subordinate commands as required to coordinate compliance with the policy and procedures put forth by PEO C4I and this Tech Spec for systems and equipment to be installed in Navy ships. NAVWAR shall:

- a. Provide direct support services to the PEO C4I programs in the areas of system support and maintenance planning, configuration management, - Integrated Product Support (IPS) elements and training.
- b. Review, track, and maintain configuration and logistics records for each system under their cognizance installed and/or modified on a ship ensuring the MBPS database accurately reflects the PEO C4I configuration baseline.

6-6.10 NAVSUP WSS-Mechanicsburg. NAVSUP WSS-M performs as the Supply Support Logistics Element Manager (SSLEM) for NAVSEA managed systems and equipment and produces ship COSALs. NAVSUP WSS shall:

- a. Operate and maintain the Navy's central repository for supply support of systems and equipment: APLs, AELs, and PALs, including associated component characteristics, maintenance worthy parts and technical data, required to support ship/shore installations. ERP/MBPS shall house the data needed to extract individual APLs, AELs, or PALs and/or an entire COSAL and follow-on updates (e.g. ASI).
- b. Process PTD as delineated in the Provisioning and Allowancing Procedures Manual.

c. Maintain and apply the various COSAL math models required to compute allowances and products such as incremental and Load COSALs, R-Supply SRF Initialization and ASI transactions.

d. Extract Incremental COSALs for ships undergoing construction/overhaul as scheduled by the SPM.

e. Extract the load COSAL for ships undergoing construction/overhaul when requested by the SPM.

f. Update/Maintain Re-Engineered Maritime Allowance Development (ReMAD) with MBPS generated transactions and extract an updated COSAL, when scheduled by the Fleet and the SPM.

g. Produce Targeted-Allowance Reconciliation Tool (T-ART) ASIs for ships scheduled via USFF/TYCOM input.

h. Interface with SPMs, PARMs, CDMs, TSAs, NSAs and other activities as necessary to ensure that the allowance preparation data files are maintained in a current and accurate state so that each responsible activity can complete their role.

i. Participate in the preparation and publishing of AELs.

j. Provide periodic maintenance for: configuration changes, APL/AEL pen and ink updates, new/revised APLs/AELs, APL/AEL supersessions, and cross reference data to automated and manual ships via ASI and/or CIA respectively.

k. Maintain APLs and AELs for NAVSUP-Philadelphia managed and supported equipment in ERP to facilitate COSAL and OMMS-NG/MFOM/R-Supply and follow-on maintenance production.

l. Ensure that configuration and provisioning data requirements are included in NAVSUP WSS hardware acquisition contracts.

m. Maintain the COSAL Use and Maintenance Manual NAVSUP P488.

n. Maintain the Centralized Allowance Product Scheduler and the Ships Allowance Computation History File (SACHF).

6-6.11 Naval Sea Logistics Center (NSLC). NSLC is supported by NAVSEA, TYCOMs, Fleet, and various program offices to provide the following:

a. Review the ship's configuration to ensure that each APL is complete and provides the needed spares to maintain the system or equipment it is to support (i.e., that APLs are not bald). Complete configuration validation audits to ensure ship's configuration is accurate and have necessary spares.

b. Provide AEL development and support. Ensure that there is a complete and accurate AEL available to provide all levels of equipage when and where required.

c. Work NSLC managed FCFBRs via Navy Enterprise Service Desk (NESD) when requests come in from the Fleet.

d. Act as the Navy's RBS implementation agent.

e. As the PMS Coordinating Activity, approve and issue PMS documentation based upon ship's configuration.

f. Provide and execute a High Value Requisition Review (HIVAL) process system by reviewing outfitting requisitions for both in-service and new construction hulls for all OPN, SCN and WPN Outfitting requisitions within current review dollar thresholds.

g. Provide Provisioning system of record training and support.

h. Serve as the Allowance Gatekeeper for adjusting allowances via Allowance Change Request (ACR) or Allowance Exception Request (AER) for Allowance Overrides that produce allowances.

i. Provide ISS through Operating Materials and Supplies (OM&S) storage, tracking and transportation.

6-6.12 ISEA. ISEA is the agent of the Program Manager (PM). The ISEA shall:

a. Provision new systems and/or equipment as tasked by the PM (specifics contained in NAVSEA's Provisioning and Allowance Procedures Manual).

b. Provide configuration input to CDM (life cycle) and designated NSA (new construction).
Note: Specifics contained in the SCLSIS Tech Spec and PAFOS Chapter 7.

6-6.13 Ships. Ships shall be responsible for maintaining their COSALs as follows:

a. Update and maintain current COSAL records based on an ASI and/or the quarterly CIA products. Submarines Only: Ensure COMSUBLANT/COMSUBPAC ASI waterfront representative or NSA/ILO (if in an ILO) updates COSAL records on a bi-monthly basis using the ASI process.

b. Prepare FCFBRs to report qualitative technical coding discrepancies in the COSAL, and ACRs to request changes to allowances.

c. Submit configuration changes through the OMMS-NG/MFOM system, including installed, removed and/or modified systems or equipment, as well as system and equipment alterations.

d. Order spares, MAMs, equipage, and consumables as required to fill and maintain the ship's allowance. Initial outfitting of spares, MAMs, equipage, or consumables, including those added to the ship's authorized allowance by the monthly updates are funded by the NAVSEA OPN-8 allotment.

APPENDIX A

COORDINATED SHIPBOARD ALLOWANCE LIST PREPARATION AND PROCESSING

A-1 INTRODUCTION.

This appendix defines the Coordinated Shipboard Allowance List (COSAL) and provides procedures for the development and distribution of COSAL data. A ship's COSAL is the definitive allowance document for a ship. A COSAL, which is both a supply and technical publication, is developed from one of the largest and complex programs in the Navy. While the actual use of the traditional COSAL has been diminished due to the automation of supply and maintenance processes, COSAL remains the basis for the automated products and tools that have taken its place, including Organizational Maintenance Management System - Next Generation (OMMS-NG)/Maintenance Figure of Merit (MFOM)/R-Supply and the Automated Shore Interface (ASI). The COSAL establishes the allowance for spare and repair parts, Maintenance Assistance Modules (MAMs), Operating Space Item (OSI), General Purpose Test Equipment, special purpose test equipment, and special tools required to operate and maintain systems and equipment installed in U.S. Navy ships. The COSAL is provided as data to ships in either CD-ROM format and/or as the OMMS-NG/MFOM. OMMS-NG/MFOM is the preferred method of providing COSAL data to ships in the Fleet. This appendix provides step by step actions required to implement the policies set forth in Chapter 6 Section 6.4 of this manual. It describes a COSAL in terms of its derivation from a combination of Navy Enterprise Resource Planning (ERP), Model Based Product Support (MBPS), and ReMAD and describes the actions and milestones that must be completed to develop the data required to support a COSAL computation. OMMS-NG/MFOM provides an automated methodology for maintaining the ship's configuration baseline and for maintaining inventory control of the ship's allowances of spares and MAMs.

A-2 COORDINATED SHIPBOARD ALLOWANCE LIST (COSAL).

To simplify data storage onboard ships, the Navy is using digital technology for managing supply and configuration information.

A-2.1 Automated COSAL Format. The introduction to a COSAL is best defined as a document that establishes the shipboard material support for installed and portable equipment and provides a list of equipment required for a ship to perform its operational mission. It is designed to achieve support among the various equipment enabling the ship to have a maximum, self-supporting capability for an extended period of time. Automated COSALs are structured in three major parts.

A-2.1.1 COSAL PART I. Is made up of six different index sections and serves as the table of contents for the publication. Each of the indices contains the same information sorted in a different sequence.

A-2.1.1.1 Summary of Effective Allowance Parts List (SOEAPL). The COSAL SOEAPL lists non-supported and full supply support Allowance Parts Lists (APLs)/Allowance Equipage List

(AELS). The SOEAPL contains all APLs/AELs that apply to the ship. The SOEAPL is broken down by equipment type.

A-2.1.1.2 COSAL Index Sections A & B. Primarily contain the same information, but the sequence in which this information is listed differs. Section A is arranged in alphabetical sequence by noun name and partial characteristic description of each APL, AEL, and Allowance Components List (ACL). Section B is arranged alphabetically by Service Application.

A-2.1.1.3 COSAL Index Sections C, D, & E. This index provides a listing of systems and equipment included in the COSAL. These indexes are arranged in sequence by APL/AEL to Equipment Identification Code (EIC) (Part 1 Section C), by EIC to APL/AEL (Part 1 Section D), and by AILSIN/Functional Group Code to APL/AEL (Part 1 Section E)

A-2.1.2 COSAL PART II. Contains the allowance documentation (actual APLs and AELs) for the equipment installed in a ship.

- a. Section A: APLs.
- b. Section B: Circuit symbol data for all electronic APLs in Navy use contained on GDAPL CD-ROM. (No longer provided as part of the COSAL).
- c. Section C: AELs.

A-2.1.3 COSAL PART III. Is the Stock Number Sequence List (SNSL) which contains allowances broken down into various types, including 7 sections.

- a. Section A: Storeroom Items
- b. Section B: OSIs
- c. Section CF: MAMs
- d. Section CR: Ready Service Spares
- e. Section D: Alternate number to stock number cross-reference to National Item Identification Number/Navy Item Control Number
- f. Section E: General Use Consumable List
- g. Section F: Forms and Publications (I COG)

A-3 COSAL COMPUTATIONAL MATH MODELS.

The development of COSAL is driven by the ship's configuration baseline, maintenance and insurance level of the ship, duration period, equipment criticality, and computational model selected. This COSAL development process requires extracts of systems and equipment data from the MBPS databases. Most COSAL computation models begin by calculating the expected quantity of each part needed for a specified period of time. The models then calculate an allowance quantity based on the expected number of replacements. The COSAL computational models vary based on the parameters built into the model. The following list consists of the math models used in the computation of a COSAL:

- a. .5 Price Sensitive Fleet Logistics Support Improvement Program Plus (FLSIP .5 Plus)
- b. .25 FLSIP
- c. .10 Modified FLSIP (MOD-FLSIP)
- d. Readiness Based Sparing (RBS) (usually applied at system/equipment level)
- e. TRIDENT

RBS and .5 Price Sensitive FLSIP Plus are the models most commonly used in the COSAL computation process. Refer to PAFOS Chapter 2: Readiness Based Sparing for a complete explanation of the RBS process.

A-3.1 Price Sensitive FLSIP .5 Plus (PSF .5P). In April 2005 CNO approved the following modifications:

a. A simplified version of the FLSIP formula used to establish the foundation of ship allowances is as follows:

$$(1) UR = \frac{POP \times BRF}{4}$$

(a) UR = Usage Rate.

(b) An estimate of how often a 4-part will be needed in each 90-day period.

(c) POP = Population of the part on board the ship (i.e., installed population).

(d) BRF = Best Replacement Factor. BRF is the actual Fleet reported usage. The BRF is reviewed and updated annually to reflect the latter as reported by fleet users and recorded in the 3-M system. Adjustments to the BRF can result in repair parts being added or deleted in subsequent allowance products. Establishing and updating BRFs are engineering functions under the cognizance of NSLC, NAVSUP, and Navy Supply Information Systems Activity. The BRF is the primary variable in the FLSIP model.

(e) 4 = Dividing by 4 determines the expected usage for a 90-day period (1 quarter) which is the Chief of Naval Operations established stocking level duration.

(f) If UR is equal to or greater than 0.50, the item is carried as an On-Board Repair Part (OBRP). If UR for a given part is less than .125 (.5 divided 4), these items may be excluded. The excluded items are subsequently passed through the "PLUS" part of the model.

b. This spare parts allowance model significantly reduces OBRPs by removing items that cost \$2,000 or more by sparing them at 4.0 (four demands in a one-year period). Items costing less than \$2,000 will remain spared at .5 FLSIP (one demand in a two-year period). RBS, Planned Maintenance Systems, Safety Overrides and OSIs will remain unaffected.

c. The Plus portion of the model will eliminate C2 Casualty Reports (CASREPs) along with any Maintenance, Material and Management ADDBACK information greater than \$2,000. The Price Sensitive variant will expand CASREP ADDBACKs by changing the business rules to 1 hit for C3/C4 CASREPs in a ship class/group over a two-year period for items less than \$10K. This ensures items less than \$20K will be allowed and assigned a 'Y' Allowance Derivation Code.

A-4 COSAL PREPARATION.

COSALs are initially prepared when a ship is undergoing construction. During that period of time, a ship's configuration file is developed using ERP and MBPS. MBPS is an automated data system that performs CSA for systems and equipment as they are installed in a ship.

A-4.1 Incremental COSALs. A ship is constructed over an extended period of time (usually three to five years). A shipbuilding contract requires a shipbuilder to acquire and install Contractor Furnished Equipment (CFE) and Government Furnished Equipment (GFE) needed to construct the ship. A shipbuilding contract further stipulates that the shipbuilder is responsible for providing the initial OBRPs required to operate and maintain the CFE installed by the

contractor. Due to the time that it takes to acquire parts and to provide the shipbuilder an opportunity to take advantage of buying parts from the original equipment manufacturer, the Navy extracts several increments of the COSAL. These increments coincide with the installation schedule and provide an allowance for the systems and equipment installed in a ship at a specified period of time. The number of increments extracted for a ship varies based on the size of the ship and the length of the construction period. COSAL increments are scheduled to provide the ultimate number of spares and are based on a percentage of completion of installation of systems and equipment.

A-4.1.1 Purpose of Incremental COSALs. The purpose of the incremental COSAL is to define responsibility for initial OBRPs and OSI, as well as to provide early identification so the items can be acquired in a timely fashion to ensure meeting readiness milestone requirements. Each part listed in the Incremental SNSL (ISNSL) is designated as CFE or GFE. Each ISNSL provides additions and deletions so spares levels can be adjusted. Additionally, the status of outfitting can be measured throughout the construction period. The shipbuilding contractor is responsible for acquiring and providing the initial allowance of spares designated as CFE. The COSAL increments provide the Shipbuilder with a computed level of spares which reduces the number of individual spares that must be acquired.

A-5 COSAL MAINTENANCE.

Once OMMS-NG/MFOM is initialized, the ship enters the COSAL maintenance phase. This phase will continue until the ship is struck from the records. The data files and systems used to extract a COSAL are dynamic in nature. As the ship's configuration changes, the OMMS-NG/MFOM database is updated. As ERP is updated, the parts history file changes which means that APLs, AELs, and PALs are constantly changing. Therefore, a method of updating all ships' COSALs is a necessity. ASI data is used to provide monthly maintenance to OMMS-NG/MFOM ships.

A-5.1 Automated Ships. Ships that have OMMS-NG/MFOM installed receive bi-monthly ASI data containing configuration, logistics, and allowance information to update their OMMS-NG/MFOM database.

APPENDIX B

ALLOWANCE PARTS LIST PREPARATION AND PROCESSING

B-1 INTRODUCTION.

This appendix provides specific instructions for the preparation and processing of Allowance Parts Lists (APLs). It implements the policies and procedures pertaining to APLs as set forth in PAFOS Manual Chapter 6. This appendix defines APLs, identifies APL categories, and provides procedures to be followed in the preparation of APLs.

B-2 APL DEFINITION.

The APL is a technical document jointly prepared by the Technical Support Activity (TSA). The APL is a stand-alone allowance document that identifies a system or equipment and the repair spares, Maintenance Assistance Modules (MAMs), and special tools required for operation and maintenance, both corrective and preventive, for the system or equipment. An APL culminates the provisioning data development and is the document used to establish supply system stockage objectives, as well as define candidates for shipboard allowances. APLs are an integral part of a ship's Coordinated Shipboard Allowance List (COSAL). APLs that support systems and equipment installed in a ship are listed in the Summary of Effective Allowance Parts List Part I and are provided in their entirety in Part II of the COSAL.

B-3 APL PREPARATION.

Chapter 3A of the COSAL Use and Maintenance Manual, NAVSUP P488, identifies and provides examples of the various types of APLs that appear in a COSAL. The preparation of an APL involves multiple actions on the part of the provisioning team summarized below and treated in detail in NAVSEA's Provisioning and Allowancing Procedures Manual.

- a. A Ship, System or Equipment acquisition manager contracts for provisioning data.
- b. The system or equipment manufacturer or system integrator provides the provisioning data in the format specified by the associated Contract Data Requirements List.
- c. Provisioning data is processed by the designated TSA and NAVSUP WSS-Mechanicsburg (NAVSUP WSS-M) for the application of technical and supply coding. Refer to NAVSEA's Provisioning and Allowancing Procedures Manual for a full description of the provisioning process and assignment of responsibilities.
- d. Once the data is entered into Navy Enterprise Resource Planning (ERP) it can be extracted as a stand-alone APL or as part of a COSAL. Stand-alone APLs are commonly referred to as provisioning APLs and show quantities of repair spares, MAMs, and special tools based on the number of equipment installed in a ship. Hard copy COSAL APLs do not list allowed quantities. Instead, the user is referred to the Stock Number Sequence List (SNSL) of the COSAL to determine the allowed quantities.
- e. After preparation, the TSA is responsible for the validity of the APL.

B-4 APL FORMAT.

The APL is formatted as follows (the upper-case letters represent the standard blocks on the APL form). Figure B-1 provides an illustrated APL with the applicable data defined:

<u>DATA FIELD</u>	<u>DESCRIPTION</u>
EQUIPMENT NOMENCLATURE	This block identifies the system or equipment the APL supports
TECHNICAL DOCUMENT NUMBER	This block identifies the system or equipment technical manual and/or system or equipment drawing used to maintain and operate the system or equipment
IDENTIFICATION NUMBER	This block provides the APL number assigned. Ordnance Fire Control Systems and Electronics systems have (8) eight characters. Hull, Mechanical, and Electrical (HM&E) equipment have nine characters. Use of APL prefixes and suffixes can expand the number to a total of 11 characters. Allowance Equipage Lists (AELs) have 10 characters. Appendix C of the COSAL Use and Maintenance Manual, NAVSUP P488, provides a complete breakdown of HM&E APL categories and the numbering system used in assigning APL identification numbers
DATE	The date appearing here is the date the APL was extracted from the WSF
PAGE	The page number appearing here is the page number of the APL. The last page of the APL will have the word "END" printed in bold print in the center of the page on the line immediately following the last line of data. This data is entered during the provisioning process
CHARACTERISTICS	A finite description of the system or equipment is printed in the body of the APL directly beneath this word. This block can also be used to provide specific instructions and notes. The Commercial and Government Entity (CAGE) for the system or equipment is also provided in this block. This data should also appear on the system or equipment nameplate that is permanently affixed to the system or equipment
ADDITIONAL DATA FIELD	The space immediately beneath and following the characteristics field is reserved to provide additional data that helps to identify the system or equipment in relation to a parent system or equipment. This data can consist of additional drawings, additional technical manuals, related APLs, and specifications. This field is also used to record key logistics information and notes pertaining to this APL and its spare parts. The Lead APL (LAPL) for HM&E systems and equipment is identified in this space
ACCESSORY EQUIPMENT	APLs for accessory equipment are listed on parent APLs. These accessory APLs are provided through the WSF but must be verified by the TSA

REFERENCE SYMBOL NUMBER	This is the plan and piece number, or a specific designator assigned to an electronics or fire control system piece part. This number is technical in nature and must be provided by the system or equipment manufacturer and should be an integral part of the system or equipment drawings
ITEM NAME	The CAGEs and noun names of embedded parts or special tools are provided in this column. The CAGE is a code assigned to a manufacturer and is an integral part of the design plans and provisioning data. A combination of the CAGE and the plan and piece number of the part provides cataloging data and finite parts identification.
STOCK NUMBER	The National Stock Numbers (NSNs) or Navy Item Control Numbers (NICNs) assigned to individual parts, special tools, or MAMs are provided in this column. NSNs are assigned by the Defense Logistics Information Service (DLIS) based on the CAGE and part identification provided by NAVSUP WSS-M via ICAPS or it's designated replacement during the provisioning process. NICNs are assigned by NAVSUP WSS-M to provide parts identification while an NSN is being obtained. Permanent NICNs may also be assigned to non-stocked items to assist the Fleet in the identification and control of items
PART MILITARY ESSENTIALITY CODE (MEC)	The Part MEC is assigned to reflect the importance of each part to the system or equipment as a whole
SOURCE, MAINTENANCE AND RECOVERABILITY (SM&R) CODES	SM&R codes are technical in nature and reflect the part level acquisition, maintenance, and disposal philosophies. SM&R code assignment is summarized below and detailed in Chapter 4: – SOURCE CODE - The Source code consists of the first two digits of the SM&R Code and indicates the source of a part. – MAINTENANCE CODE - The Maintenance Code consists of two digits occupying the 3rd and 4th positions of the SM&R code. – RECOVERABILITY/CONDEMNATION CODE - The recoverability/ condemnation code occupies the fifth position of the SM&R code.
ALLOWANCE NOTE CODES (ANCs)	ANCs are assigned to individual parts to identify a unique requirement of some types, such as MAMs
QUANTITY IN ONE EQUIPMENT	The numbers appearing in this column indicate the number of individual parts that are embedded in the system or equipment identified on the APL

UNIT OF ISSUE	This column indicates the quantity of an item carried as a packaging unit in the supply system (i.e., each, assembly, dozen, box, gross, foot, etc.)
ALLOWANCE ITEM CODE (AIC)	This code provides Allowance Override (AOR) or under-ride coding
ON BOARD ALLOWANCE TABLE	If the APL is a provisioning APL, there will be quantities in the columns as applicable. If the APL is extracted as part of a COSAL, the words "SEE SNSL FOR ALLOW" will appear on the face of the APL
SHIP TYPE & HULL NUMBER	If the APL is a provisioning APL, this space will be blank. If the APL is extracted as part of a ship's COSAL, that ship's hull type and hull number will be printed in this space (i.e., DD 963 would appear here if the COSAL was for the USS SPRUANCE DD 963)
PAGE	This space provides the page count on the applicable number of consecutive pages that have been printed by category of APL ("H" indicates HM&E, "Z" indicates ordnance, "E" indicates electronics). For example, the 20th page printed for the HM&E category of APLs would be H20

B-5 TYPES OF APLS.

There are several types of APLs. These are described in detail in the COSAL Use and Maintenance Manual, NAVSUP P488. The APL types are identified here to provide a ready reference. The APL number can range from eight to 11 characters including prefixes and suffixes.

B-5.1 Hull, Mechanical and Electrical APL. HM&E APLs are used to identify the maintenance significant items for HM&E systems and equipment. These APLs have nine characters in their identification number. Figure B-1 is an example of an HM&E APL.

B-5.2 Ordnance APL. Ordnance APLs are used to identify the maintenance significant items for the ship's weaponry and weapons support equipment. These APLs identify the ordnance system by the type of weapon system (i.e., Gun, 5 Inch 54 MK 2 MOD 1, etc.). Ordnance APL identification numbers have nine characters with the first two characters being 00. (See Figure B-2.)

B-5.3 Ordnance Alteration (ORDALT) APL. This APL is used to identify maintenance significant items supporting an alteration to an ordnance system or equipment. This APL is used in conjunction with the system or equipment APL identified in the characteristics field. ORDALT APL identification numbers have nine characters with the first two characters being 0R (zero R). (See Figure B-3.)

B-5.4 HM&E Machinery Alteration (MACHALT) APL. MACHALT APLs are developed to identify maintenance significant items supporting configuration changes to HM&E systems and equipment. These changes are caused by redesign of the system or equipment, or by redesign of

internal parts. These systems are normally Government acquired and built to NAVSEA specifications. MACHALT APL identification numbers have nine characters and can be identified by an alpha character in the sixth position. (See Figure B-4.)

B-5.5 Electronic and Gunfire Control System (GFCS) APLs. Electronic and GFCS APLs are developed to identify maintenance significant items supporting electronic and GFCS. These APLs also have Section "B" which is a top-down breakdown of maintenance significant parts in Circuit Symbol Number (CSN) sequence. CSNs are cross referenced to the NSN or NICN, CAGE for the part, and part number. Electronic and GFCS APL identification numbers have eight characters. (See Figure B-5.)

B-5.6 Electronics Field Change APL. Electronics Field Change APLs are prepared to identify maintenance significant items to support the configuration changes resulting from alterations to electronic systems and GFCSs. These APL identification numbers have eight characters. (See Figure B-6.)

B-5.7 Miscellaneous Repair Parts List APL. Miscellaneous Repair Parts APLs provide support for a variety of equipment installed in ships that are not APL worthy. These APLs are also used to avoid proliferation of APLs for systems that can be modified by shipboard personnel without changing the configuration of the basic equipment. These APLs, commonly referred to as 89000 series APLs, were developed to accommodate common electrical, piping, and machinery systems. Appendix "A" to the COSAL Use and Maintenance Manual, NAVSUP P488, provides the ground rules to be used in the development of 89000 series APLs. The identification number for these APLs has nine characters and always starts with "89" as the first two characters. (See Figure B-7.)

B-5.8 Allowance Components List (ACL). Although the ACL is identified as an APL, the ACL does not identify any parts. The ACL is provided to identify a system that is made up of equipment that are supported by APLs on their own. There are also equipment APL numbers listed that are identified for configuration control purposes only. Some of the equipment listed on the ACL may not be installed at each installation and must be validated for each ship. Parts support for the equipment is derived through the equipment APLs. ACLs are electronic in nature and their identification numbers have (10) ten characters; the last two characters range from "CA" to "CZ" except "X." (See Figure B-8.)

ALLOWANCE PARTS LIST (APL)

EQUIPMENT/COMPONENT NOMENCLATURE/CHARACTERISTICS				MANUAL		IDENTIFICATION NO.		DATE		PAGE						
PUMP CTFGL 900GPM 125PSI 3500RPM MD VLT				347-4249		016110317		03-15-90		1						
CHARACTERISTICS				TECHNICAL DOCUMENT NUMBER		PLAN		ON BOARD ALLOWANCE TABLE								
MFR-AURORA PUMP A UNIT OF GENERAL SIGNAL CORP MFR DWG-2FCS256 MFT ID-SMMX5 PATTERN NO-174 EQUIP SPEC-MLP17639CLASSC2 NSN-7H 4320-01-046-6604 LAPL-01-011 CAPACITY-900GPM TOTAL DYNAMIC HEAD-125-PSI SPEED-3500RPM IMPELLER DIA-8.375 MOUNTING-HORIZONTAL ROTATION-CW TYPE DRIVE-MD NOTE-STAINLESS STEEL REPLACEMENT PUMP END NSN 7H 4320-00-569-7660 APL 016110682 FSCM-04579				PART SOURCE RECOVERY MAINT NOTES		QTY IN ONE EQUIP/COMP.		U/I ITEM		NUMBER OF EQUIPMENT/COMPONENTS						
										1 2 3 4 5-8 9-20 21-50						
*SERVICE APPL--FIRE COUPLING SHFT FLEX FIGHTING-FIRE PUMP INSTALLED				782350006		8 3										
*SERVICE APPL--FIRE LIGHT ASSY IND FIGHTING-FIRE PUMP INSTALLED				212101421		8 3										
*SERVICE APPL--FIRE MOTOR AC 440V 100HP FIGHTING-FIRE PUMP INSTALLED				174802512		8 3										
*SERVICE APPL--FIRE STARTER MOTOR SZ 4 440V FIGHTING-FIRE PUMP INSTALLED				151205726		8 1										
*SERVICE APPL--FIRE STARTER MOTOR SZ 4 440V FIGHTER-FIRE PUMP INSTALLED				151205727		8 1										
*SERVICE APPL--FIRE STARTER MOTOR SZ 4 440V FIGHTER-FIRE PUMP INSTALLED				151205728		8 1										
*SERVICE APPL--FIRE SWITCH ASSY 2 ELEMENT FIGHTER-FIRE PUMP INSTALLED				212102352		8 3										
REFERENCE SYMBOL NO.				ITEM NAME		STOCK NUMBER		U/I		1	2	3	4	5-8	9-20	21-50
SM 101		H 219		ALLOWANCE PARTS LIST (APL)				PART SOURCE RECOVERY MAINT NOTES		QTY IN ONE EQUIP/COMP.		016110317		03-15-90		1
SHIP TYPE & HULL NO.		PAGE						IDENTIFICATION NO.		DATE		PAGE				

EQUIPMENT/COMPONENT NOMENCLATURE/CHARACTERISTICS				MANUAL	347-4249	IDENTIFICATION NO.		DATE		PAGE																	
PUMP CTFGL 900GPM 125PSI 3500RPM MD VLT				TECHNICAL DOCUMENT NUMBER	PLAN	016110317		03-15-90		2																	
CHARACTERISTICS					PART M E C	S O U R C E	M A I N T	R E C O V E R I T Y	N O T E S	QTY IN ONE EQPT/ COMP.	U/I	A L L	ON BOARD ALLOWANCE TABLE														
													1	2	3	4	5-8	9-20	21-50								
G-234				04576 PACKING RINGS	H 0000-LL-CW-16876	1	MOOZZ		12	EA																	
				USE 9Z5330-00-450-9894																							
ML-A-17472-1				81349 ASBESTOS SHEET	9Z 5330-00-585-9502	1	PAOZZ		1	SH	P																
ML-P-24377-				81349 PACKING MATERIAL	9Z 5330-00-450-9894	1	PAOZZ		1	LB	P																
1-29QX2 3-4LG				04579 KEY-MACH STL 1-2X2	9Z 5315-00-224-4605	1	PAOZZ		1	EA																	
1FCS294-6				04579 CUP-GREASE	9C 4730-00-190-5568	3	PAOZZ		2	EA																	
1F06332278S				04579 IMPELLER-PUMP CTFGL	H 4320-00-660-8533	1	PAOZZ		1	AY																	
17HCS256 PUMP				04579 BEARING-SLV	9Z 3120-00-725-0074	1	PAOZZ		2	EA																	
2-10-112BG				04579 PUMP-CENTRIFUGAL	7H 4320-01-046-6604	1	PAOOD		1	EA	Z																
2-10-44BG				04579 RING-LTRN SPT	9C 4320-00-718-1424	1	PAOZZ		2	EA																	
2-2A132SS				04579 GLAND ASSY	H 0000-66-CE5-9422	1	XBOZZ		2	AY																	
2-8-57MK				04579 CASING, PUMP	7H 4320-01-078-2094	1	PAODD		1	AY	Z																
207WD				04579 SHAFT, SHOULDERED	9C 4320-00-802-2064	1	PAOZZ		1	EA																	
6-10-46				04579 BEARING, BALL ANN	9Z 3110-00-554-5962	1	PAOZZ		1	EA																	
676-1085-283				04579 FLANGE ASSY	H 0000-LL-CG2-6025	3	XBOZZ		1	EA																	
676-1086-111				04579 RING, WEARING	9C 4320-01-061-7547	1	PAOZG		2	EA																	
7207W				04579 RING, WEARING	9C 4320-01-042-2730	1	PAOZG		2	EA																	
END																											
REFERENCE SYMBOL NO.				ITEM NAME		STOCK NUMBER		PART M E C	S O U R C E	M A I N T	R E C O V E R I T Y	N O T E S	QTY IN ONE EQPT/ COMP.	U/I	A	1	2	3	4	5-8	9-20	21-50					
SM 101		H 220		ALLOWANCE PARTS LIST (APL)																							
SHIP TYPE & HULL NO.		PAGE																									
														016110317		03-15-90		2									
														IDENTIFICATION NO.		DATE		PAGE									

Figure B-1. Hull, Mechanical and Electrical APL

ALLOWANCE PARTS LIST (APL)									
EQUIPMENT COMPONENT NOMENCLATURE CHARACTERISTICS				MANUAL		TECHNICAL DOCUMENT NUMBER		IDENTIFICATION NO.	
MK6MOD9, HOIST, 5 INCH CALIBER AMMUNITION				PLAN		NUMBER		DATE	
								006040052	
								08-17-92	
								1	

EQUIPMENT/COMPONENT NOMENCLATURE/CHARACTERISTICS		MANUAL		IDENTIFICATION NO.		DATE		PAGE	
MODIFICATION KIT		TECHNICAL DOCUMENT NUMBER		PLAN		OR68040001		10-15-88 1	
CHARACTERISTICS MFR-NAVAL ORDNANCE PLANT NAVCOM PLAN- MFR DWG- MFR ID-ORDALT6804 PATTERN NO-1140 EQUIP SPEC. FSN-2A1440-178-9995 LAPL- NOTE APPLICABLE TO LAUNCHER MK112MODS ALL APLS 005020001,005020009,005020016, 005020024 FSCM-61178 0744									
ORDALT APL ORDALT APL SHOULD BE USED IN CONJUNCTION WITH THE BASIC APL									
1A 5315-00-404-7818 9Z 5310-00-773-7618 9Z 5310-00-857-4959 9Z 5310-00-680-6850 9Z 5310-00-768-0319 9Z 5306-00-781-1169 1A 1440-00-456-6170 1A 5306-00-411-0254 1A 5315-00-404-7819									
2 - NOTES - For detailed definition, see Appendix "C"									
3 - DASH (-) located in the ALL ITEM column and represent the quantity by which the affected APL population of the item has been decreased because of ORDALT accomplishment									
REFERENCE SYMBOL NO.		ITEM NAME		STOCK NUMBER		QUANTITY IN ONE EOP/COMP.		21-50	
DD 901	Z6	PART II ALLOWANCE PARTS LISTS (APL) SECTION A							
SHIP TYPE & HULL NO.		PAGE							

Figure 3-A-11 ORDALT Allowance Parts List

Figure B-3. Ordnance Alteration APL

EQUIPMENT/COMPONENT NOMENCLATURE/CHARACTERISTICS				MANUAL		IDENTIFICATION NO.		DATE		PAGE	
APPROVED SHIP ALTERATION NO DD 901				70342		52017A010		05-30-88		1	
MFR-NAVAL SEA SYSTEMS COMMAND, WASH. DC NAVCOM PLAN-518-5356953 MFR DWG-5356953 MFR ID -5356953 PATTERN NO-1204 EQUIP SPEC-NONE NSN-N/A LAPL-NLAPLW TECHNICAL DIRECTIVE NO. - JCB NO. - APPLICABLE CHANGE IN DESIGN NO. -SSN-2929 APPLICABLE BASE LINE APL NO. -520170342 PDCN-W470K 8UK FSCM-53711				PART NO SOURCE REMARKS QTY IN ONE EOPT/COMP.		A L I T E M 1 2 3 4 5-8 9-20 21-50		ON BOARD ALLOWANCE TABLE NUMBER OF EQUIPMENTS/COMPONENTS SEE SNSL FOR ALLOW			
MS28774-330 96906 RETAINER-PK 2 . 138 ID 92 5330-00-582-2145 1 EA M83248/1-330 81349 PACKING PREFMD 2 . 100 ID 92 5330-01-005-4058 1 EA M83248/1-920 81349 O-RING-1 . 250D 1 . 475 ID 92 5330-00-165-1977 1 EA											
END											
1 HM&E modification APL denoted by "AO" 2 Identifies the APL as a ship alteration											
REFERENCE SYMBOL NO		ITEM NAME		STOCK NUMBER		QTY IN ONE EOPT/COMP.		IDENTIFICATION NO.		DATE	
DD 901		H 10		PART II ALLOWANCE PARTS LISTS (APL) SECTION A				52017A010		05-30-88	
SHIP TYPE & HULL NO.		PAGE									

Figure 3-A-13 HM&E Machine Alteration (MACALTs) Allowance Parts List

Figure B-4. Machinery Alteration APL

ALLOWANCE PARTS LIST (APL)

EQUIPMENT/COMPONENT NOMENCLATURE/CHARACTERISTICS										TECHNICAL DOCUMENT NUMBER		MANUAL		IDENTIFICATION NO.		DATE		PAGE											
AM/SRA, ANTENNA GROUP										PLAN		57103200		10-15-88		1													
CHARACTERISTICS										P A R T M E C		R E C O V B L T Y		N O T E S		QTY IN ONE EQPT/COMP.		U/I		A L L E M		ON BOARD ALLOWANCE TABLE		NUMBER OF EQUIPMENT/COMPONENTS		1 2 3 4 5-8 9-20 21-50			
MFR-FUTURONICS CORP CONTRACT NR-NOBSR 93208 SOURCE OF APL INFO-SEE BELOW TECH MANUAL-NAVSHIPS 0967-274-9010 MAJOR UNITS WHICH ARE PART OF THIS EQUIPMENT UNIT/CKT SYM RANGE TYPE QTY UNIT NAME										AS-1982 / SRA-42001 TN-443 / SRA-42 001 C-8072 / SRA-42 001		ANTENNA RADIO FREQ TUNER ANTENNA CONTROL																	
FSCM-14680																													
C-8072 / SRA-42 AS-1982 / SRA-42 TH-443 / SRA-42 AM / SRA-42 FC1 AM /SRA-42 FC1										P / O AM / SRA-42 P / O AM / SRA-42 P / O AM / SRA-42 P / O AM / SRA-42																			
ANSRA42 CK068X104M CK05F121G01 CK06FD911G03 CK06F102101 CH15EJ00JN1 CP05A1KP104K3 CP5481EG105K1 CV11A120 D1T235 F1L17C F02A250V1-1-2AS H915 JAN1IN4007 JAN1N4750A JAN2N2222A JAN2N2907A M1C18 M1C5 MS24371										80058 81349 81349 81349 81349 81349 81349 81349 81349 80223 81349 81349 80223 81349 81349 80223 81349 813																			

Figure B-5. Electronic and Gunfire Control System APL

ALLOWANCE PARTS LISTS (APL)

EQUIPMENT/COMPONENT NOMENCLATURE/CHARACTERISTICS		MANUAL		IDENTIFICATION NO.		DATE		PAGE	
PP-6395 / UYK-7 (V) FC7		TECHNICAL DOCUMENT NUMBER		79739016		07-30-88		1	
CHARACTERISTICS MFR-PERRY CORP SYS DIV-DEFENSE ST PAUL MN NHA-PP-6395 / UYK-7 (V), POWER SUPPLY COMMERCIAL NOMEN-NONE FSCM-90536 CCF DATE - 01 79									
7073075-10		90536 REGULATOR - OSCILLATO		7HH6110-01-126-7149VN		1		EA -	
7073075-11		90536 REGULATOR - OSCILLATO		7HH7025-01-086-3001VN		1		EA -	
7139160-01		90536 CIRCUIT CARD ASSEMB		1HM5962-01-101-6355VN		1		EA -	
7139161-00		90536 CIRCUIT CARD ASSEMB		9N 7010-00-262-3386		1		EA -	
7151591-07		90536 CIRCUIT CARD ASSEMB		1HM7025-01-228-5153		1		EA -	
7906459-18		90536 CAPACITOR, FIXED, CER		9N 5910-00-113-5445		1		EA -	
7906459-30		90536 CAPACITOR, FIXED, CER		9N 5910-00-113-5276		1		EA -	
END									
ELECTRONIC FIELD CHANGE APL ELECTRONIC FIELD CHANGE APL SHOULD BE USED IN CONJUNCTION WITH THE BASIC APL									
① - Electronic Field Change APL denoted by "FC" in nomenclature. ② - Dash (-) located in the ALL ITEM column indicates this part population is subtracted and not used for COSAL computation.									
REFERENCE SYMBOL NO.		ITEM NAME		STOCK NUMBER		QTY IN ONE EOPT/COMP.		ON BOARD ALLOWANCE TABLE	
DD 901	E 20	PART II ALLOWANCE PARTS LISTS (APL) SECTION A						1 2 3 4 5-8 9-28 21-50	
SHIP TYPE & HULL NO.		PAGE						79739016 07-30-88 1	

Figure 3-A-12 Electronic Field Change Allowance Parts List

Figure B-6. Electronic Field Change APL

EQUIPMENT/COMPONENT NOMENCLATURE/CHARACTERISTICS										TECHNICAL DOCUMENT NUMBER		MANUAL PLAN		IDENTIFICATION NO		DATE		PAGE							
MISC PARTS OUTFIT X FURNISHING AGOS 0019														890519800		07-15-90		1							
CHARACTERISTICS																									
MFR-VARIOUS NAVCOM PLAN- MFR 100- MFR 100- PATTERN NO-128 EQUIP SPEC- NSN- LAPL-THIS PARTS LIST CONTAINS MISCELLANEOUS ITEM COMPILED ON A SHIPWIDE BASIS. APL COLUMN HEADED QUANTITY PER EQUIPMENT/COMPONENT LISTS THE QUANTITY INSTALLED ON THE EQUIPMENT/COMPONENT PART. THIS SECTION WILL INCLUDE CROSS REFERENCE DATA FROM PART OR DRAWING AND PIECE NUMBER TO ESN. MSC UNIQUE FSCM-03950 CCF DATE - 03 87																									
58023 LAVATORY 78770 TOASTER, ELECTRIC 23828 CONTROLLER, MOTOR 22230 OVEN, MICROWAVE 07429 BROILER, TOASTER-ELE 9C 4510-00-571-6410 9B 7310-01-298-7382 9B 9110-00-400-6331 9B 7310-01-130-3782 1HM 0089-LL-H26-0816																									
END																									
PART MFR SOURCE MFG RECOVBLTY QTY IN ONE EQUIP COMP U/I A L T E M																									
SEE SNSL FOR ALLOWANCE 1 EA 1 EA 1 EA 2 EA																									
PART MFR SOURCE MFG RECOVBLTY QTY IN ONE EQUIP COMP U/I A L T E M																									
890519800 07-15-90 1																									
SHIP TYPE & HULL NO																									
PART 11																									
ALLOWANCE PARTS LIST (APL)																									
SECTION A																									
REFERENCE SYMBOL NO.																									
TAGOS 19																									
H 891																									
PAGE																									
IDENTIFICATION NO																									
DATE																									
PAGE																									

EQUIPMENT/COMPONENT NOMENCLATURE/CHARACTERISTICS				MANUAL		IDENTIFICATION NO.		DATE		PAGE										
				TECHNICAL DOCUMENT NUMBER		59001100CL		03-15-90		1										
				PLAN																
CHARACTERISTICS				P A R T S M A I N T E N A N C E		R E C O V E R Y		Q T Y IN ONE EQPT/COMP.		ON BOARD ALLOWANCE TABLE										
MFR-GENERAL DYNAMIXS ELECTRONICS ROCHESTER, NEW YORK NSN-2Z 5820-00-964-9674 EIC-QTD4T000 CONTRACT NR-NOBSR 87614, NOBSR 89368, NOBSR 93015				P A R T S M A I N T E N A N C E		R E C O V E R Y		Q T Y IN ONE EQPT/COMP.												
ALLOWANCE COMPONENTS LIST (ACL)				1		2		3		4	5-8	9-20	21-50							
FOR COSAL USE, THE ACL IS USED FOR IDENTIFYING APLS IN A SYSTEM AND IN DETERMINING COMPONENT-SYSTEM RELATIONSHIPS. NO FURTHER VALIDATION IS REQUIRED. FOR PECI VALIDATION AND APL ORDERING, NOT FLL INSTALLATION OF THIS EQUIPMENT ARE IDENTICAL. IN ORDER TO ENABLE SPCC TO FURNISH CORRECT APLS AND/OR DEVELOP ACCURATE PECI CONFIGURATIONS THE SHIP OR VALIDATION ACTIVITY MUST INDICATE THE CORRECT QUANTITY FOR EACH ON BOARD EQUIPMENT IN THE INSTALLED QUANTITY COLUMN. WHEN A PECI IS VALIDATED, INDIVIDUAL VALIDATION AID CARDS (NAVSUP FORM 131f) SHOULD BE PREPARED OR VERIFIED FOR THE COMPONENT APLS USING THIS LISTING AS A GUIDE TO SYSTEM RELATE APL NUMBERS.																				
*SERVICE APPL --RADIO				AM-3007/URT, AMPLIFIER, RADIO		52300700		8		1										
*SERVICE APPL --RADIO				CU-937/UR, TUNER, AUTOMATIC		62688437		8		1										
*SERVICE APPL --RADIO				H-169/U, HANDSET		67016900		8		1										
*SERVICE APPL --RADIO				J-1265/U, BOX, INTERCONN		70101856		8		1										
*SERVICE APPL --RADIO				MT-3115/WRC-1, SHOCK MOUNT		75530501NA		8		1										
*SERVICE APPL --RADIO				R-1051F/URR, RECEIVER, RADIO		81095103		8		1										
*SERVICE APPL --RADIO				T-827/URT, TRANSMITTER, RADIO		88485700		8		1										
*SERVICE APPL --RADIO				12436-MK-7W-WRT, KIT, INTERCONNECTING CABLE		61954324		8		1										
*SERVICE APPL --RADIO				12436-MK-8W-WRC, KIT, EXTENDER CABLE		61954321		8		1										
				END																
REFERENCE SYMBOL NO.				ITEM NAME				STOCK NUMBER				U/I		1	2	3	4	5-8	9-20	21-50
SM 101				E490								U/I		5900100CL		03-15-90		1		
SHIP TYPE & HULL NO.				PAGE				IDENTIFICATION NO.				DATE		PAGE						

Figure B-8. Allowance Component List

B-6 POLICY.

It is Navy Policy that each system or equipment installed in a U.S. Navy ship be supported by spares, repair parts, special tools, MAMs, plus general and special purpose test equipment necessary to perform maintenance and safely operate the system or equipment. To this end, the following policy shall apply:

- a. An APL will be developed for each system or equipment that has embedded parts that will be removed, replaced, or repaired on board U.S. Navy ships.
- b. The TSA shall be responsible for assigning the technical codes and validation of APLs for the equipment under its cognizance.
- c. The Program Support Inventory Control Point (PSICP) shall be responsible for processing provisioning data and maintaining a file of APL data in ERP.
- d. The PSICP shall extract APL data with each COSAL and each update of COSAL data.

A full description of the policy relative to the provisioning process is contained in NAVSEA's Provisioning and Allowance Procedures Manual.

B-7 RESPONSIBILITIES.

The following responsibilities shall be accomplished by the activities indicated.

B-7.1 NAVSEA Sustainment Directorate (SEA 06) shall.

- a. Provide policy and guidance in the preparation of APLs.
- b. Provide interface with other System Commands to ensure that the provisioning process is completed by the system or equipment installation dates.

B-7.2 Ship Program Managers (SPMs) shall. Require Configuration Data Managers (CDMs) to maintain the correct APLs in the MBPS database to reflect the accurate ship configuration and support philosophy.

B-7.3 Participating Acquisition Resource Managers (PARMs) shall.

- a. Interface with NAVSUP WSS-M to ensure that APLs are developed for each system or equipment installed in a U.S. Navy ship.
- b. Require TSA and/or In-Service Engineering Agents to provision installed systems and/or equipment to an APL.

B-7.4 Naval Supervising Activity (NSA) shall. Provide system and equipment configuration data to the CDM for government procured equipment using the characteristics data provided on the APL to identify the system or equipment.

B-7.5 NAVSUP Weapons Systems Support-Mechanicsburg (NAVSUP WSS-M) shall.

- a. Maintain a database of APL data in the WSF.
- b. Extract APL data from the WSF for use in computation of a COSAL.
- c. Provide APL data and/or hard copy APLs to ships as necessary.

APPENDIX C

PRELIMINARY ALLOWANCE LISTS

C-1 OVERVIEW.

Any system or equipment installed, or being installed, in U. S. Navy ships should be supported by an approved Allowance Parts List (APL) or a fully documented Preliminary Allowance List (PAL). It is preferred to complete the provisioning process in sufficient time to have an APL developed and available to support equipment installed in new construction and operational ships but this is not always possible. In cases where sufficient provisioning technical data is not available and/or an APL will not be available by the equipment installation date, PALs are developed instead of APLs and are used to provide support documentation for the equipment until the APL data is available.

C-2 DEFINITIONS.

The following definitions are provided.

C-2.1 Interactive Computer Aided Provisioning System (ICAPS). ICAPS or its designated replacement is an on-line provisioning data tool that uses cooperative database technology on both mainframe and personal computer platforms. It enables provisioning personnel to create, validate, correct, and manipulate Provisioning Technical Documentation. The Technical Support Activity (TSA) uses ICAPS to forward required provisioning data to NAVICP-M.

C-2.2 Interim Support Items List (ISIL). ISILs are provisioning lists of spares and repair parts recommended for support of a system or equipment during the interim support period. The interim support period is the time between Preliminary Operational Capability (POC) and the Material Support Date (MSD). POC is the date of the first installation of a system or equipment and is the date that supply support is required. MSD is the date that the Federal Supply System (FSS) assumes responsibility for providing all necessary supply support for a system or equipment. An ISIL is required in shipbuilding and conversion contracts for all items provisioned that will not be supported by an APL by the ship's delivery date. For overhaul and availability contracts, an ISIL is required for each new equipment installed that will not be supported by an APL by the End of the Availability.

C-2.3 Mini-COSALs. Produced by NAVSUP WSS-M to provide support for equipment not supported by the COSAL. The product package usually has a COSAL In Access (CIA) CD or text file datasets with Parts I, II, and III.

C-2.4 PALs. Support documents published in APL format when all necessary provisioning information is not available, and a support document is required. A PAL is needed only if the APL will not be complete before the first installation of an associated equipment. After all technical and support data are available for the system/equipment, a PAL will be replaced by an APL. The complete APL information will overlay the preliminary information that comprises the PAL; the Repairable Identification Code (RIC) (APL/PAL) number will remain the same. An allowance document, either APL or PAL, must exist in Level "C" of the WSF to allow the

ship's COSAL to reflect an accurate configuration and allowance. The PAL development process is fully explained in the Provisioning Chapter.

C-2.5 Advance RIC. Is a document/record consisting of an alpha-numeric designator and the item nomenclature and serves as a place holder in the ERP until provisioning has been completed. Advance RIC assignment usually begins two months prior to delivery/installation of the end item. The Advance RIC will become an APL having the same alpha numeric designator (RIC) after provisioning has been completed and PAL may be an intermediate step.

The Advance RIC provides a process to improve reporting of equipment configuration which was not identified in time for APL/PAL development. For new construction, the PAL process will be used from six months until six-eight weeks prior to ship's delivery at which time the Advance RIC will be used. For availabilities, the PAL process will be used until SOA-2 at which time the Advance RIC will be used.

C-3 RESPONSIBILITIES.

The following responsibilities shall be accomplished by the activities indicated.

C-3.1 Ship Program Manager (SPM) shall: ensure that contractual requirements are invoked in the prime contract to provide the requisite information for development of a PAL. Specific requirements are identified in the Provisioning Chapter.

C-3.2 In-Service Engineering Agent (ISEA) shall: coordinate with the NSA, Planning Yard, or CSM to ensure that the PAL or Advance RIC is reflected in the MBPS database in time to support initial installation.

C-3.3 Program Support Inventory Control Point (PSICP) shall: issue the PAL. Upon completion of the subsequent formal provisioning process, the PAL will be replaced by the APL, retaining the same RIC number.

APPENDIX D

ALLOWANCE EQUIPAGE LIST PREPARATION AND PROCESSING

D-1 INTRODUCTION.

This appendix provides specific instructions for the preparation and processing of Allowance Equipage Lists (AELs). It implements the policies and supplements the responsibilities set forth in the Allowance Chapter of this manual. It defines AELs, identifies AEL categories, and provides procedures to be followed in the preparation of an AEL. It provides guidance on the preparation and use of AELs and finally, it describes the method of establishing requirements for unique systems and the method used to extract the data required to prepare AELs for portable electronic test equipment.

D-2 AEL DEFINITION.

AELs establish allowances for items that are required to perform a specific operational function; are needed for the performance of maintenance actions; and are needed for the safety and protection of personnel. Materials that are identified and provided through AELs are generally identified as Operating Space Items (OSI) in the ship's Coordinated Shipboard Allowance List (COSAL) and are loaded into specific shipboard within the custody of the operating department responsible for the space.

Part I. The COSAL Summary of Allowance Parts/Equipage lists identifies the AELs that apply to the ship, while Part II Section C of the COSAL contains the full associated AELs. Part III Section B of the COSAL provides a Stock Number Sequence List of the OSI authorized to be on the associated ship. AELs include technical and logistic information related to specific equipage categories.

All AELs fall into one of the following categories and managed by the following organization:

Allowance Equipage List (AEL) Type/Definition	Numeric Prefix	Alpha Prefix	NAVSUP-Managed	NSLC-Managed
Ordnance Material	0-	A	X	
Space/System Related Material (HM&E/Nuclear)	1-	B		X
Miscellaneous HME Material	2-*	C		X
Miscellaneous Special Warfare	2-99 2-99CES	C	X	
Mobile – Automotive, Construction, and Material Handling Equipment, HAZMAT(3-HZ)	3-	D		X
Flag-level Items	4-	E		X
SINS/FBM/Special Project Office Equipage	5-	F	X	
Nuclear Reactor Program (NRP) – Classified [not currently used for new AEL establishments]	6-	G	X	
Electronics	7-*	H	X	
Tools, Electronics Equipment	7-67	H		X
Trident [not currently used by NAVSUP for new AEL establishments]	8-	J		X
Nuclear Ordnance [not currently used for new AEL establishments]	9-	K	X	
<i>*With Exceptions</i>				

Most of the above categories are self-explanatory based on their nomenclature. However, the following paragraphs serve to provide a brief explanation of those less self-explanatory. A Flag allowance shall be included in the COSAL for ships that are designated to carry Flag Officers and their staffs on board as part of their mission. Special allowance for Flags may be authorized for any ship in the Fleet when it is designated to carry a Flag or associated Staff. AELs for Flags and Staffs have a **4-00000** designation and are to provide extra equipage and OSI for general housekeeping, offices, navigation, and personnel-oriented support.

Fleet Ballistic Missile (FBM) program equipage is identified on **5-00000** AELs.

Nuclear Reactor Plant Equipage is identified on **6-00000** AELs. Ships that have this type of propulsion will have a special COSAL segment for Reactor Plants and will have equipage and OSI that is identified by **6-00000** AELs.

The ERP creates **7-00000** AELs for portable Electronics Test Equipment.

AEL numbers in the **8-00000 series** are reserved for the use of TRIDENT Submarines.

AEL numbers in the **9-00000 series** are reserved for Nuclear Weapons Equipage.

The items in Attachment 1 to this appendix are considered to be Non-AEL Worthy. Attachment 2 to this appendix identifies items that are included in the COSAL for Information only and are included in AELs.

If there are any questions regarding the assignment of AEL numbers, contact NAVSEA Sustainment Directorate (SEA 06) or Naval Sea Logistics Center (NSLC) for resolution.

D-3 AEL PREPARATION.

Preparation of AELs is a complex task requiring the review of ship design plans and specifications to determine the equipage and OSI required for the operation and safety of the ship and the personnel assigned to it. The Plans, Specifications, and Technical Manuals provide the information needed to determine equipage and OSI for system or equipment related AELs. AELs shall be prepared via the Interactive Computer Aided Provisioning System (ICAPS) or its designated replacement as outlined in the provisioning chapter or on NAVSEA Form 4441/1 format as follows (the upper-case print denotes the block on the form; a copy of NAVSEA Form 4441/1 is provided as Figure D-1):

- a. EQUIPAGE NOMENCLATURE/CHARACTERISTICS - Enter the noun name of the equipage category. (Limited to 48 characters.)
- b. TECHNICAL DOCUMENT NUMBER -
 - (1) MANUAL - Enter technical manual identification if applicable
 - (2) DRAWING - Enter the applicable drawing and piece number. If the equipage is ship related, enter the appropriate ship plan and specification.
- c. IDENTIFICATION NUMBER - Develop and enter the AEL number as follows:
 - (1) Electronic, Gunfire Control System and Ordnance Program Support Equipment AELs. These Identification Numbers are computer assigned by NAVSUP WSS during the provisioning process.

(2) Hull, Mechanical and Electrical (HM&E) Equipment and Trident Submarine AELs:
Positions 1 through 7 shall be filled with one of the category codes listed below:

1-16xxx	Bow & Stern Gate Rigging
1-20xxx	Tools & Equipment, Capstans & Windlasses
1-21xxx	Misc. Packing & Gaskets, Hoses & Fittings
1-22xxx	Tools & Equipment, Steering & Diving Systems
1-23xxx	Nitrogen Systems
1-24xxx	Periscope Housing Fittings
1-34xxx	Galley Equipment
1-36xxx	General Purpose Garbage Disposal & Waste Water Systems
1-37xxx	Propane Gas & Cylinders
1-38xxx	Air Purifying & Ventilation Systems
1-41xxx	Misc. Tools & Equip. Propulsion & Diesel Engine
1-44xxx	Misc. Lifting & Handling Shafts & Seals
1-48xxx	Misc. Tools & Equip., Hoses & Fittings, Piping Systems
1-59xxx	Misc. Tools & Equip., Hoses & Fittings, Piping Systems
1-62xxx	Misc. Electrical Connectors & Batteries
1-65xxx	Audible Signaling Devices
1-67xxx	Misc. Sonar System Handling Equipment
1-78xxx	Ammunition Handling & Securing Tiedowns
1-87xxx	Thermometers & Gages
1-91xxx	Hand Tools & Equipment, Various Shops
2-1200x	Life Rings, Buoys & Accessories
2-1500x	Misc. Refueling Equipment
2-1600x	Ladders, Brows, Staging, Scaffolding & Boatswains Chairs
2-1800x	Riggings & Anti-Corrosion Covers
2-2000x	Replenishment At Sea Handling & Rigging
2-2100x	Hydraulic Fluid Filter Units
2-2200x	Emergency Steering Gear
2-2300x	Refrigerant Gas Cylinders
2-2400x	Navigational Equipment & Accessories
2-2500x	Towing Gear & Hawsers
2-2600x	Anchoring, Mooring & Towing Equipment
2-2700x	Cargo Handling, Lashings & Tiedowns
2-3200x	Office & Chaplains Equipment
2-33001	Life Preservers & Accessories
2-33002	Air Purification, Submarine Escape & Rescue Equipment
2-33007	Protective Clothing & Helmets
2-35000	Laundry Equipment & Accessories
2-37xxx	Medical & Dental Equipment
2-3800x	Air Handling & Dehumidification Equipment & Accessories
2-4100x	Tools & Equipment, Lifting & Handling Gear, Propulsion Equipment
2-4300x	Tools & Equipment, Lifting & Handling Gear, Main Shaft
2-4700x	Portable Pumps
2-4800x	Hoses & Fittings, Misc.
2-5100x	Tools & Equipment, Misc. Boiler Applications
2-5500x	Fueling At Sea (FAS) Tools & Testing/Measuring Equipment

2-5600x	Boiler/Feed Water Testing Equipment & Compounds
2-5900x	Tools & Equipment, Refrigeration and Air Conditioning
2-6200x	Tools & Equipment, Electrical Cables and Shore Power
2-6400x	Portable Lighting
2-6500x	Portable Non-Electronic Communications Equipment
2-6600x	Portable Signaling Lights
2-6700x	Tools & Equipment, Electrical and Electronic Repair
2-7000x	Flags and Pennants
2-7500x	Torpedo & Mine Handling Equipment
2-7700x	Chemical, Biological & Radiological (CBR) Tools & Test Equipment, Respirators & Protective Clothing
2-81xxx	Minesweeping Gear
2-82xxx	Small Boats & Crafts, Life Boats & Rafts, Equipage & Accessories
2-83xxx	Aircraft Handling Tools & Equipment
2-85xxx	Photographic Equipment & Supplies
2-87xxx	Instruments, Testing, Measuring, Indicating
2-88xxx	Damage Control Equipment
2-92xxx	Misc. Tools & Equipment, Jacks & Hoists, Welding Gasses & Equipment
2-93xxx	Fire Fighting Hoses, Nozzles, Fittings, Protective Clothing and Breathing Apparatuses.
2-94xxx	Rescue and Salvage Tools & Equipment
2-95xxx	Diving Equipment
2-99xxx	Misc. Tools & Equipment, Spec Warfare, SEAL teams, Coast Guard
3-NDIxx	Portable COTS/NDI items
3-HZxxx	HazMat Consumables.
4-xxxxx	Flag Officers' (and their staffs') allowances
8-xxxxx	Trident Submarine

Positions 8 through 11 reflect a numeric serial number.

d. DATE - Enter the calendar date the AEL is prepared.

e. PAGE - Number pages consecutively

f. CHARACTERISTICS - Enter the characteristics of equipage.

g. SERVICE APPLICATION CODE (SAC) - Enter a SAC constructed from the following:

(1) Service Application - Enter the description of the service application followed by the SAC obtained from current Navy directives.

(2) Column - Enter the column to be used.

(3) Responsibility - Enter code identifying responsibility for procurement of equipage and OSI listed on the AEL.

h. INDIVIDUAL ITEM IDENTIFICATION - Enter the following data for each item of equipage or OSI:

(1) Reference Number - drawing and piece number or valid manufacturer's part number

(2) Item Name

(3) National Stock Number (if available)

(4) Commercial and Government Entity

(5) Unit of Issue

(6) Quantity required - application by column

ALLOWANCE EQUIPAGE LIST (AEL)

EQUIPAGE NOMENCLATURE/CHARACTERISTICS		TECHNICAL DOCUMENT NUMBER	MANUAL PLAN	IDENTIFICATION NO.	DATE	PAGE					
CHEMICALS AND EQUIP BOW/FDWTR TEST AND TREATMENT				2-560004103	03-15-92	1					
ON BOARD ALLOWANCE TABLE											
CHARACTERISTICS				COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
CHEMICALS AND EQUIPMENT BASED ON THE NUMBER OF BOILERS PER SHIP											
QUANTITIES IN COLUMN 2 FOR 2 BOILERS											
QUANTITIES IN COLUMN 3 FOR 3 BOILERS											
QUANTITIES IN COLUMN 4 FOR 4 BOILERS											
QUANTITIES IN COLUMN 8 FOR 8 BOILERS OR MORE											
QUANTITIES LISTED AMOUNT TO A SIX MONTHS SUPPLY											
PSCH-0950											
OAA1Q-FEEDWATER SYSTEM-TESTING EQUIPMENT											
ZZA605	APRON-LABORATORY	9Q 8415-00-634-5023		UPAOZZ	1	EA	1				4
MILB26701	BOTTLE POLY 1 QT	9G 8125-00-819-6085		UPAOZZ	1	EA	1				48
92372	CANISTER-GAS MASK-ROCKE	9G 4240-00-764-6301		UPAOZZ	1	EA	1				4
MILW15000 CLASS F	CHLORIDE INDICATOR CL	1H 6810-00-753-4907		UPCOZZ	1	BT	1				8
D-62	DIMETHYLGLYOXIME, AC	9G 6810-01-082-5414		UPAOZZ	1	BT	1				4
GCG-G-521	GOGGLES, INDUSTRIAL	9G 4240-00-190-6432		UPAOZZ	1	PR	1				8
292	HARDNESS TITRATING	1H 6810-01-072-1978		UPCOZZ	1	GL	1				4
MILB24119	ION EXCHANGE COMPOU	1H 6810-01-029-4217		UPAOZZ	1	CF	1				24
2240-0050	JERRICAN-5GAL PLASTIC	9L 6640-01-083-9756		UPAOZZ	1	EA	1				8
93497	MASK-GAS ROCKET PROPELL	9F 4240-00-902-5516		UPAOZZ	1	EA	1				4
MILW15000 CLASS B	MERCURIC NITRATE-0.5N CL	1H 6810-00-281-4163		UPCOZZ	1	BT	1				12
MILW15000 CLASS E	METHYL RED-ACID BLUE	9G 6810-00-142-9290		UPAOZZ	1	BT	1				4
OM0575 CLASS 3	MORPHOLINE, TECHNICA	9G 6810-00-419-4258		UPAOZZ	1	CN	1				30
MILW15000 CLASS A	NITRIC ACID 10N	1H 6810-00-270-9978		UPAOZZ	1	QT	1				8
BBN411	NITROGEN-TECH	9G 6830-00-244-2741		UPAOZZ	1	CF	1				48
P79	PHENOLPHTHALEIN, ACS	9G 6810-00-223-7612		UPAOZZ	1	OZ	1				4
291	POWDER, HARDNESS BUP	1H 6810-01-072-1977		UPCOZZ	1	BT	1				4
290	POWDER, HARDNESS IND	1H 6810-01-072-1979		UPCOZZ	1	BT	1				4
8268-MII	SCOOP, PLASTIC, 2 IN BOWL	9Q 7330-01-079-0694		UPAOZZ	1	EA	1				8
REFERENCE NO./DESCRIPTIVE DATA	ITEM NAME	STOCK NO.		COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
CG 68	H 309										
ALLOWANCE EQUIPAGE LIST (AEL)											
SHIP TYPE & HULL NO.	PAGE										

Figure D-1. NAVSEA Form 4441/1

D-4 POLICY.

The following policy shall apply to the development of AELs:

- a. There shall be an accurate and complete AEL developed for each Ship, Ship Class, as well as systems and equipment that require equipage or OSI for operation, maintenance, or testing.
- b. AELs shall be developed while a ship is under construction and maintained for the life cycle of the ship. AELs shall be reviewed for updating and change whenever a ship undergoes a conversion, overhaul, or availability.
- c. System and equipment related AELs shall be prepared when the system or equipment is under acquisition. System and equipment related AELs shall be maintained and updated whenever the system or equipment receives an alteration based on an approved design change.
- d. A Baseline AEL conference will be held in accordance with the Joint Instruction NAVSEA 4441.7D/NAVSUP 4441.29B, Supply Readiness Objective and Milestones.

D-5 SCOPE.

The following categories of equipage require allowance change approval action by the cognizant In-Service Engineering Agents (ISEAs). Only the ISEA is authorized to adjust the ship's initial fitting-out allowance of equipage material in the categories listed below. Requests for changes to AELs in the categories listed below must be routed to the cognizant ISEA (or designated representative) for review and approval. (Refer to NAVSEA's Provisioning and Allowance Procedures Manual for processing of Allowance Change Requests (ACRs).

<u>AEL CATEGORY</u>	<u>EQUIPAGE</u>
0-xxxxx	Ordnance Equipage
2-12001	Life Buoys, Rings, & Accessories
2-15xxx	Misc., Refueling Equipment
2-24xxx	Navigation
2-33001	Life Preservers and Accessories
2-33002	Air Purification, Submarine Escape and Rescue Equipment
2-37xxx	Medical Equipment
2-51xxx	Misc. Boiler Applications
2-55xxx	Fueling at Sea, Misc. Fuel Test and Measuring Equipment
2-56xxx	Boiler Feed Water Test Equipment
2-70xxx	Flags and Pennants
2-75xxx	Torpedo and Mine Handling Equipment
2-77xxx	Chemical, Biological, and Radiological Equipment, Test Kits, and Respirators
2-81xxx	Minesweeping Gear
2-82xxx	Small Boats & Crafts, Equipage
2-87xxx	Instruments, Testing, Measuring, Indicating
2-88xxx	Damage Control Equipment
2-93xxx	Fire Fighting, Breathing Apparatus
2-94xxx	Salvage Equipment

**AEL
CATEGORY**

2-95xxx

4-xxxxx

5-xxxxx

6-xxxxx

7-11xxx

7-67xxx

EQUIPAGE

Diving Apparatus

Flag Officers' (and their staffs') allowances

Equipage & OSI for FBM

Nuclear Equipment

SPAWAR Electronics

Portable Communications, Infrared, RADIAC, SONAR,
Electrical and Electronic Testing Equipment

All other AEL categories (other than those listed in 6-D.4 Paragraph a) are categories in which the Naval Supervising Activity (NSA) has been granted the authority to make adjustments in the ship's initial fitting-out allowance of equipage material. These adjustments need not be reported to the cognizant ISEA. In exercising this delegated authority, the NSA shall observe the following:

a. The total cost of all such locally authorized adjustments shall not exceed two percent of the total cost of the equipage allowance in this category as tabulated in Part III, Section B of the ship's first published COSAL.

b. Weight, moment, and space limitations will constrain these adjustments to a ship's initial outfit.

D-6 RESPONSIBILITIES.

The following responsibilities shall be assumed and the functions assigned shall be accomplished:

D-6.1 NAVSEA Sustainment Directorate (SEA 06) shall:

a. Provide policy and guidance for the development and utilization of AELs.

b. Provide budgeting and funding as required to develop AELs.

D-6.2 Ship Program Managers (SPMs) shall:

a. Designate a comparable ship to be used in the development of ship level AELs.

b. Require Participating Acquisition Resource Managers (PARMs) to have AELs prepared for new systems and/or equipment.

c. Interface with NAVSEA damage control personnel and Fleet Commanders to ensure that ship level damage control and safety related AELs are developed and included in each ship's COSAL.

d. Provide ship level drawings to the applicable Technical Support Activity (TSA) responsible for provisioning the ship, to NAVSEALOGCEN, and to NAVSUP WSS to be used in the preparation of ship level AELs.

e. Require the applicable TSA or ISEA to determine which AELs are required for system and equipment certification.

f. Ensure that AELs are entered into MBPS as part of Configuration Overhaul Planning.

g. Ensure AELs that are above the baseline of a comparable ship are developed by shipbuilder and/or NSA during new construction.

D-6.3 PARMs shall:

a. Include the requirement for system and equipment drawings in acquisition contracts. These drawings shall be adequate to determine equipment required to operate and maintain the system or equipment as well as define which equipment is required for shipboard certification of the system or equipment.

b. Interface with the designated TSA to ensure that adequate AEL data is provided to NSLC and NAVSUP WSS for the preparation and publication of AELs. Each published AEL shall provide adequate equipment for the operation and maintenance of systems and equipment and for alterations and modifications of systems and equipment.

D-6.4 Naval Surface Warfare Center Carderock Division shall:

a. Chair the annual conference to update HM&E AELs.

b. Update and maintain an AEL database on CBR equipment. Ensure this database is compatible with ICAPS or its designated replacement to provide rapid update of the ERP via NSLC.

c. Update and maintain an AEL database on HAZMAT consumables. Ensure this database is compatible with ICAPS or its designated replacement to provide rapid update of ERP via NSLC.

D-6.5 Naval Support Activity (NSA) shall:

a. Develop required AELs from drawings, ship contract specifications, etc.

b. Report all AELs to the ship's Configuration Data Manager.

c. Provide Provisioning Technical Documentation and NAVSEA Form 4441/1 to support new or revised AELs to the applicable TSA.

D-6.6 In-Service Engineering Agents (ISEA) shall:

a. Review systems and equipment drawings (including revisions) to determine equipment requirements.

b. Determine equipment validation requirements for systems and equipment.

c. Provide AEL data to NSLC or NAVSUP WSS.

D-6.7 NSLC shall:

a. Review and validate all requests for new AEL development or changes to existing AELs under NSLC cognizance and assist in their preparation.

b. Assign permanent AEL numbers for equipment categories under NSLC cognizance.

c. Review data, plans and drawings provided by NSAs, ISEAs, TSAs, SPMs, and PARMs, to validate AEL requirements for equipment categories under NSLC cognizance.

- d. Maintain the AEL data in ERP for equipage categories under NSLC cognizance.

D-6.8 NAVSUP WSS shall:

- a. Review data, plans, and drawings provided by NSAs, ISEAs, TSAs, SPMs, and PARMs to validate AEL requirements.
- b. Maintain the AEL data in ERP.
- c. Publish COSALs on an as required basis to provide AEL indexes and the ship's allowance list.

ATTACHMENT 1 NON-AEL WORTHY ITEMS

The following items are not AEL worthy:

- a. Items that are installed and require no repair parts or foreseeable replacement, e.g. bookcases, benches, cleats.
- b. Items that are usually fabricated or assembled on site from locally available materials.
- c. Items that are portable and readily available from commercial sources for both outfitting and replacement, have no application to any installed equipment, and have no operational or military necessity.

The listing below provides examples (Note: This listing is representative and shall not be construed as "All-Inclusive").

ADAPTERS - Hose & Pipe (miscellaneous installed)
 AIRSCOOPS - Airport; portlight
 AWNINGS
 BASES - Cabinets & Equipments
 BENCHES - Mess & Dining
 BERTHS & BEDS
 BILGE PAD ASSEMBLIES - Boat
 BOOKRACKS
 BOOKCASES
 BOARDS - Absentee, bulletin, nameplate, etc.
 BRIDLE PLATES AND YOKES
 BROWS - Aluminum or wood
 BUCKLERS - Turret, fabric
 BUFFETS - Dining
 BULLETIN BOARDS
 BOXES - Fire alarm (breakage type for CO2 activation)
 CABINETS - Filing, storage, washroom, etc.
 CAMERAS - NAVAIR Publication
 CANOPIES
 CASTERS - Chair, gang plank
 CHAIRS
 CHOCKS
 CLAMPS - Hose miscellaneous installed
 CLEATS - Installed
 CLEATS - Rod end (installed)
 COMPUTER PERIPHERIALS – Printers, Scanners, Projectors, Pointing Devices, Servers,
 LANS, WANS, etc.
 COMPUTERS, PERSONAL - Laptop and Desktop
 COUPLINGS - Hose miscellaneous (for minor drains, wash-down)
 COVERS - Furniture, chair, canvas (bulk material)
 COVER ASSEMBLY - Hatch
 CRADLES - Boat, torpedo

CURTAINS - Airport, door, shower
 DAVITS - Portable (pipe type)
 DEADLIGHTS - Airport or port light
 DECK FITTINGS FOR BLOCKS, etc.
 DISCS - Safety Pressure for CO2 extinguisher
 DISPENSER - Dish, tray, soap
 DOGS - Hatch, scuttle
 DOLLY - Boat stowage
 DOORS
 DOOR MATS
 ENTERTAINMENT EQUIPMENT - Television, Video Recorders, Speakers, Stereo Equipment,
 etc.
 EYELET FASTENER - Installed
 FAIRLEADERS
 FILES
 FITTINGS - Lubrication (installed)
 FITTINGS - Door, locker, drawer
 FOOT STOOLS
 FORMS - Message Blanks, etc.
 FRAMES - Door, hatch
 FURNITURE - Chairs, decks, tables, sofas, etc.
 GEAR - Operating (for remote valves)
 GEAR - Regunning
 GLASS - Airport, portlight, pullbox for fire
 Greases – Non-HAZMAT (Should be listed in GUCL)
 GRIPES - Outside, inside
 GUN - Line throwing
 GUN - Spray water (installed type for laundry press)
 HAMMOCK
 HAMPERS
 HANDRAILS
 HANDLES - Door
 HATCHES
 HEADS - Sprinkler installed
 HOLDERS - Clinical chart, sputum cup (on BUMED portion of COSAL)
 HOSE - Miscellaneous lengths and fittings (steaming out, tank filling drains, etc.)
 HULL FITTINGS - Miscellaneous
 INSTRUMENTS - Musical
 LADDERS - Accommodation
 LADDERS - Jacobs (Non-standard lengths)
 LANYARDS
 LIGHT FIXTURES - Installed
 LIGHT LOCKS
 LINKS - Fabricated types (eye pad)
 LOCKERS - Poison antidote, safe, etc.
 LOCKING DEVICES - Cypher locks, pad locks, combination locks, key locks, etc.

LUBRICANTS – Non-HAZMAT (Should be listed in GUCL)
 MARKERS - Luminous radioactive
 MESSING APPLIANCES - Toasters, blenders, waffle makers, hand mixers, etc.
 MINE CLEARING CABLES - Installed fittings
 NETS - Safety (Installed)
 NIPPLES - Hose and pipe (installed)
 NOZZLES - Hose miscellaneous (garden type, wash-down, etc.)
 PADS - Table
 PADDLES - Signal (Fabricated per Naval Warfare Publication (NWP) 38)
 PADEYES
 PHYSICAL FITNESS EQUIPMENT
 PLATES - Surface, bending, bench
 POCKETS - File visible (for file cabinets)
 PORTLIGHTS
 PROJECTORS - Film, slide, movie, overhead, etc.
 PUBLICATIONS
 RACKS - Book, swab
 RAMPS - Portable type (stowed on bulkheads)
 REDUCERS - Hose miscellaneous (minor drains, wash-down, etc.)
 RINGS - Curtain, shower, window
 RUGS
 SAFES
 SAFETY DISCS - Pressure CO2
 SCOOPS - Air, (for airport, port lights, windows)
 SCREENS - Film, slide, movie, overhead, etc.
 SEATS - Bench, bucket, chair, stool, etc.
 SINKS - Plate processing
 SLABS - Bending, Welding
 SLIPCOVERS - Furniture
 SOFTWARE
 SOLVENTS – Non-HAZMAT (Should be listed in the GUCL)
 SPRAY GUNS - Water overhead for laundry press
 STAFFS - Jack, ensign
 STAGES - Metal, wood, plastic
 STANCHIONS - Awning, handrail
 STANDS - Instrument, dressing (medical bed service)
 STATION MARKER BOXES (fabricated per NWP 38)
 STATION MARKERS (fabricated per NWP 38)
 STOOLS - Foot
 STRONGBACKS - Boat, winch
 STUD ASSEMBLIES - Holding type (bulkhead, deck house)
 TABLES - Mess, end, coffee, chart, writing
 TANKS - Small portable type (oil stowage, acid mix, day tanks)
 TAPE - Luminous deck marking
 TELEPHONES - Cellular, installed, etc.
 TIPS - Chair Leg

THIMBLES - Rope rigging
THWARTS - Portable
TOGGLES - Toggle pins
TOPS - Cabinets filing
TUBS - Cleaning, quenching, galley
VATS - Cleaning, stowage
VISES - Machinist
WEATHER CLOTHS
WEDGE BAR ASSEMBLIES - Special for test castings
WINDOWS
WIND SCREENS - Landing Officers
WORK BENCHES
WRENCHES - Non-standard (deck, drain, hatch, etc.)

ATTACHMENT 2
INFORMATION ONLY AELS

The following items are to be included in COSALs for information only. Mark-up applicable AEL with required quantities for local use only.

- a. Canvas Covers for the following types of equipment:
- b. Lifting Gear - (COSAL to show plans only in AEL series 2-41006, 2-92003)
- c. Rigging - (2-18001 series) (show only spare blocks, ropes, etc.)