

OPNAVINST 8000.16C

**THE NAVAL ORDNANCE MAINTENANCE
MANAGEMENT PROGRAM (NOMMP)**

**VOLUME III
SURFACE ORDNANCE**



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Surface Ammunition

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CHAPTER 1.1

Introduction

1.1.1 General. This chapter addresses functional areas of inventory management. This includes the distribution and stocking of non-nuclear ordnance; requisitioning, returning, issuing, receiving, and storing of ordnance items; the reporting of physical assets; the logistics support interfaces between the U. S. Navy and the U. S. Marine Corps, U. S. Coast Guard, and the Single Manager for Conventional Ammunition (SMCA), respectively; and the management responsibilities for mobilization planning in support of contingencies.

1.1.1.1 Asset Allocation. The inventory management functions pertain to the management of a multi-billion dollar inventory consisting of a wide range of end items and components. These items represent the aggregate material on hand, or due in, needed to satisfy the combat War Reserve Material Requirement (WRMR) and Non-Combat Expenditure Allocation (NCEA) non-nuclear ordnance stocking objectives, afloat and ashore. Total Fleet requirements are allocated in accordance with OPNAV allocation letters, and within budget constraints. Shortages to these allocation goals are satisfied mainly through new production or maintenance actions. Assets due in from production are consigned on a "fairshare" basis to satisfy claimant WRMR/NCEA shortfalls. Non-nuclear ordnance is allocated and distributed to the afloat forces to fill allowances of combat and auxiliary ships. A distinctive feature of the ordnance material management system is the positioning of retail replenishment stocks at tidewater locations to facilitate over-the-dock accessibility for on-loading and off-loading of combatants and auxiliary ships.

1.1.2 Objective. The objective of Sections 1-10 of this volume is to consolidate the existing policies and procedures governing Surface Ammunition (2T Cognizance) (Cog) management. These policies and procedures are designed to provide and maintain logistics support of the operating forces and ensure the maximum readiness of the in-service surface ammunition stockpile. As a corollary to its overall objective, this volume is intended to fulfill the following objectives and uses:

a. To serve as a guide and reference document for operational and support personnel who are concerned with, and responsible for, directing and implementing surface ammunition policies and procedures.

b. To depict the relationship of the surface ammunition functional areas to the logistic lifecycle.

c. To highlight the responsibilities and relationships among the shore activities and Fleet units in achieving and maintaining the maximum level of surface ammunition support required by the naval forces, ashore and afloat.

d. To provide reference, where appropriate, to official publications and detailed documents concerning subject matter areas.

Sections 1-10 of this volume is broadly focused and presents an overview of the significant management processes and functional areas applicable to surface ammunition. As such, it is not intended to take the place of current instructions, but to provide a general understanding and reference based on these authoritative sources.

1.1.3 Background.

1.1.3.1 Authority. This Surface Ammunition Management Sections 1-10 of this volume is published and distributed by direction and authority of the Commander, Naval Sea System Command (COMNAVSEASYS-COM) Conventional Ammunition Program Office under its assigned responsibilities for program management of 2T Surface Ammunition.

1.1.3.2 The development Sections 1-10 of this volume has proceeded from guidance addressing the management of surface ammunition being dispersed in a wide and diversified array of instructions, technical directives, handbooks, correspondence, and other documents. Guidance has emanated from numerous sources and levels within the surface ammunition community and is usually concerned with distinct and specialized functional areas of surface ammunition management without reference to its impact on the overall logistic support process. By gathering these dispersed statements of policy and procedures and integrating them within a single publication, it is intended to present herein the diversified world of surface ammunition in a manner that relates its parts to the whole. Attention has been directed, where appropriate, to functional areas where specific written guidance is not available.

1.1.3.3 Subject Areas. The subject areas addressed in the narrative are functionally organized and arranged to ensure continuity and facilitate ready reference. The coverage ranges from the point of higher command providing guidance and direction, through systems command implementation of guidance and each supporting activity's responsibilities and execution, to implementation by the Fleet. At each level, the directives, responsibility assignments, and the chronology of the procedural steps are indicated.

1.1.4 Terminology. Sections 1-10 of this volume primarily addresses surface ammunition specifically identified by Cog symbol "2T" (except underwater mine components and some countermeasures) and subject to the program management of the NAVSEA Conventional Ammunition Program Office and the inventory management of the Naval Operational Logistics Support Center-AMMO (NOLSC-AMMO). Where policies and procedures are not Cog specific, the material contained in this volume may be used to understand the management of other non-nuclear ordnance items. Each ordnance Cog is defined in NAVSUP P-724. Although references provided for portions of this volume are the same references for the other ordnance Cogs, specific directions contained in this volume cannot be applied as authoritative to management of other ordnance. To assist in determining if the guidance provided is specific to surface ammunition or is generic to non-nuclear ordnance, the following terms derived from the Department of Defense (DoD) dictionary will be used throughout this volume (except when included in a published name/title).

a. **Non-Nuclear Ordnance.** All munitions containing non-nuclear explosives, and biological and chemical agents. This includes bombs, and non-nuclear warheads; guided missiles, and ballistic missile components; artillery, mortar, rocket, and small arms ammunition; all mines, torpedoes, and depth charges; demolition charges; pyrotechnics; clusters and dispensers; cartridge and propellant actuated devices; electro-explosive devices; clandestine and improvised explosive devices; and all similar or related items or components. Any time the term ordnance is used it is referring to non-nuclear ordnance.

b. **Ammunition.** Non-nuclear ordnance Cogs (2E, 2T, and 0T) assigned to the SMCA that are charged with non-nuclear explosives, propellants, pyrotechnics, initiating composition, biological, or chemical material for use in military operations, including demolitions; and all similar or related items or components. Certain

suitably modified ammunition can be used for training, ceremonial, or nonoperational purposes.

c. **Weapons.** Non-nuclear ordnance Cogs (all others) not assigned to the SMCA that are charged with non-nuclear explosives, propellants, pyrotechnics, initiating composition, biological, or chemical material for use in military operations, including demolitions; and all similar or related items or components. Certain suitably modified weapons can be used for training, ceremonial, or nonoperational purposes.

1.1.5 Scope. Sections 1-10 of this volume is designed to support the Chief of Naval Operations (CNO) readiness objectives by ensuring timely and effective Fleet logistics support. It describes the standard operating policies and procedures for program, acquisition, in-service, maintenance, inventory, and demilitarization/disposal management, logistics management support, security assistance program, and training functions and applies to all Navy and Marine Corps activities concerned with naval surface ammunition and associated equipment. The following types of surface ammunition are covered:

a. **2T Cog Ammunition.**

(7) Ship gun ammunition 20mm to 16 inch service and training rounds including cartridges, projectiles, cases, fuzes, primers, propelling charges and miscellaneous subassemblies.

(8) Small arms and landing party ammunition for shotguns, rifles, pistols, revolvers, machine guns and landing force ammunition including hand grenades and rifle grenades.

(9) Pyrotechnics including surface flares, dye markers, location markers, illuminating (ground and marine) signals, smoke (ground and marine) signals, signal kits, color burst units, etc.

(10) Demolition explosives and materials including blasting caps, demolition charges and containers, detonating cord, demolition kits, firing devices, igniters, primers, cryptographic equipment destroyers, charges and impulse cartridges.

(11) Cartridges and cartridge actuated devices.

(12) Miscellaneous ammunition components and ammunition details including pallets, pallet adapters, pallet crates, and shipping and storage containers specifically designed for conventional ammunition items other than air ammunition items.

b. Ammunition and logistics support equipment associated with the above listed 2T Cog ammunition.

1.1.6 Policy.

1.1.6.1 The CNO provides the basis for this volume and sets policy for the assignment of management responsibilities to all activities of the naval establishment concerned with the acquisition, maintenance, inventory, logistics support, or demilitarization/disposal of surface ammunition and equipment.

1.1.6.2 Conventional Ammunition Acquisition Project Manager (APM). The PEO-IWS3C Conventional Ammunition APM, a subordinate to the Program Executive Officer for Integrated Warfare Systems (PEO-IWS) is assigned the APM responsibilities for surface ammunition (2T Cog) by Charter. The Charter assigns specific responsibilities and provides policy concerned with the acquisition and maintenance of surface ammunition and equipment.

a. APM Background. Because the management of the 2T Cog Ammunition Program was stable and NAVSEA was required to reduce headquarters staff, the program was identified for transfer of ammunition acquisition and maintenance management to a field activity. In May of 1988, 2T Cognizance Conventional Ammunition Program Management was transferred from the Weapons and Combat Systems Directorate (SEA-06) to NSWC Crane Division. 2T Cog AMMO Program Management Office (PM4), was established at NSWC Crane with program oversight remaining in SEA-06. In 1993 program oversight was transferred to SEA-91W2, Gun Weapons Systems (GWS). In 1995, the Program Manager Office for Naval Surface Fire Support Pro-

gram, PMS-429 was established in SEA-91. Shortly there after, in 1996, both PMS-429 and GWS were transferred to the Program Executive Officer for Theater Surface Combatants, PEO-TSC, and joined together. Oversight then began by PMS-429. In 1999, oversight was discontinued as PM4 become a division within PMS-429. In 2000, another reorganization moved PMS-429 from PEO-TSC and joined it to the Program Executive Officer for Surface Strike PEO-(S). The office designation changed from PMS-429 to PMS-529. In November 2002, PMS-529 was migrated to the newly formed PEO-IWS. In January 2003, PMS-529 was redesignated to PEO-IWS3C, the Naval Surface Fire Support Office. In July 2004, it was renamed the Naval Gunnery Project Office.

1.1.6.3 Fleet Support. The APM (PEO-IWS3C/PM4) is assigned responsibilities and provides policy for maintenance support for 2T cognizance conventional ammunition. NOLSC-AMMO is assigned responsibilities and provides policy for inventory management, ordnance information systems, and logistics support of non-nuclear ordnance and equipment.

1.1.6.4 Lifecycle Management. The APM (PEO-IWS3C/PM4) is responsible for lifecycle management of 2T surface ammunition.

1.1.7 Command Relationships. Figure 1-1-1 depicts the chain of command relationships of the commands and activities involved in the processes of surface ammunition management. As each management area is explained in the following sections, the commands involved will be identified and their responsibilities listed.

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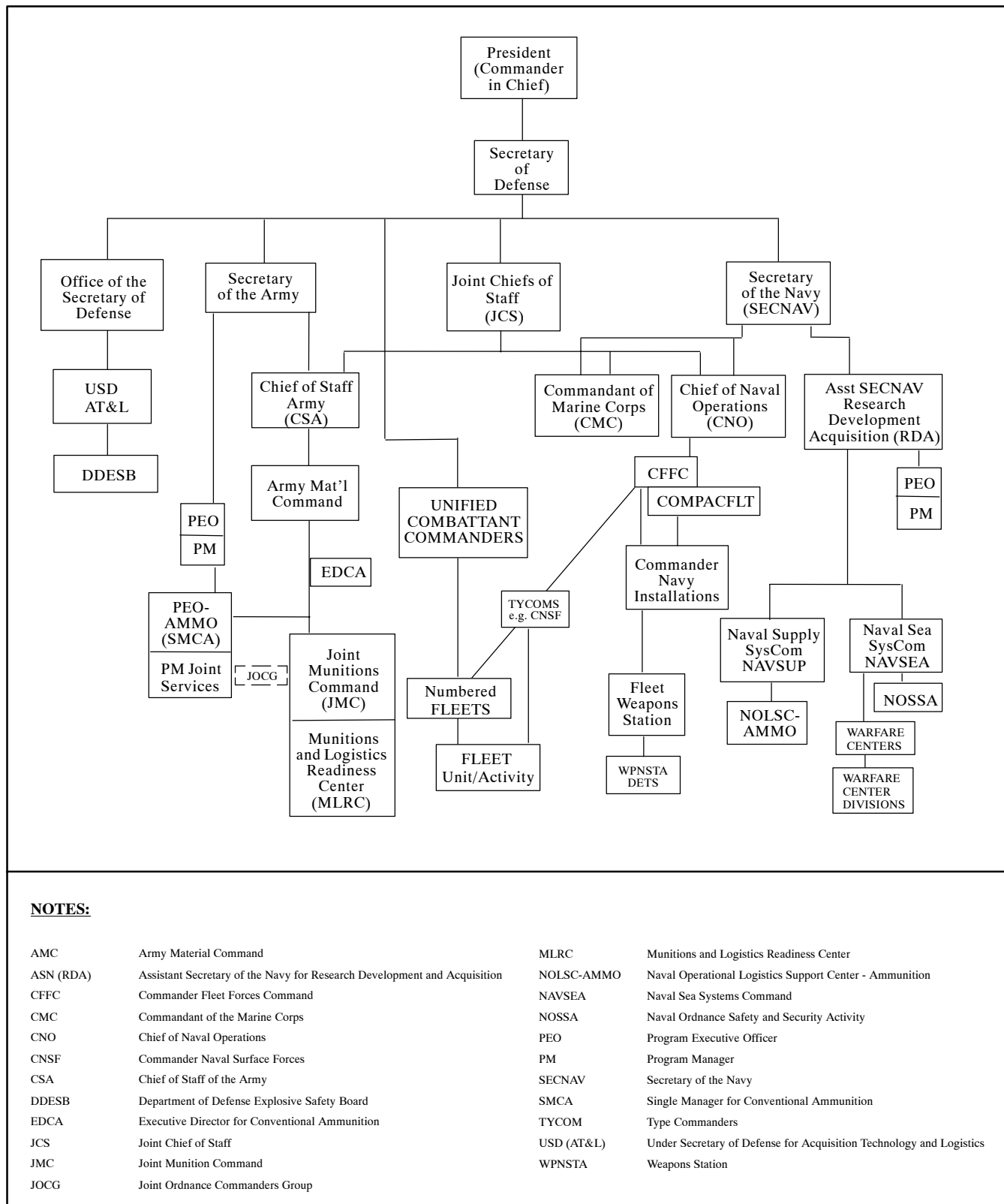


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CHAPTER 1.2

Department of Defense Interfaces

1.2.1 General. To fully understand how the Navy manages surface ammunition, an understanding of essential groups and organizations which have been formed at the DoD level is required. This chapter will identify those groups and organizations and explain their role in ammunition management.

1.2.2 The Single Manager for Conventional Ammunition (SMCA).

1.2.2.1 Background. The origin of the single manager concept was the perceived need to achieve significant economies by consolidating duplicative management within the supply systems of the Military Services. Each service independently procured, stocked, and disposed of common support items (nuts, bolts, screws, etc.), as well as the more sophisticated and expensive commonly used items. Duplication of functions also extended to principal items, such as non-nuclear ordnance. The problem of duplicate item management became even more pronounced as items increased in number and complexity. Long standing conditions of item dispersal and misdistribution, multiple procurements, lack of standardization, and poorly coordinated production base planning, among other things, highlighted the need to place such items under a single manager organization. This was the Defense Supply Agency (DSA) and its network of commodity oriented support centers. DSA became the Defense Logistics Agency (DLA) in 1977. To streamline ordnance management, DoD 5160.65-M of 1 April 1989, designating the Secretary of the Army as the SMCA. The Secretary of the Army has the power to delegate, within the Army, those authorities for the performance of the functions outlined in Department of Defense Directive (DoDD) and Department of Defense Instruction (DoDI). Today's SMCA objectives specified in DoDD 5160.65 of 14 April 2004, includes the following:

a. Achieve the highest possible degree of efficiency and effectiveness in the DoD operations operations required to acquire top quality conventional ammunition for U.S. Forces.

b. Integrate the wholesale conventional ammunition logistics functions of the Military Departments to

the maximum extent practicable, thereby eliminating unwarranted duplication and increasing conventional ammunition program. Manage and invest in an integrated logistics base supporting assigned conventional ammunition requirements.

c. Use acquisition strategies that stabilize the business environment and provide incentives for private investment in the production base. Rely on the private sector to create and sustain ammunition production assets in response to production contracts and justify for contingency readiness expanded production capability. To the maximum extent feasible, transition Government-owned ammunition production assets to the private sector while preserving the ability to conduct explosives handling operations safety.

1.2.2.2 Charter. The Charter of the SMCA issued 16 August 2004 states "The SMCA mission, as outlined in DoDD 5160.65, is to perform DoD conventional ammunition mission functions, as defined in DoDI 5160.68. Mission functions include: Acquisition (including research, development, test and evaluation; Technical Data/Configuration Management; production base), wholesale logistics integration, (including supply, distribution, transportation and handling, storage, quality assurance, maintenance, safety, security, renovation), demilitarization and disposal, financial management (planning, programming, budgeting, and execution), personnel and unit training, and implementing regulations and assessment. DoDI 5160.68 of 22 Dec 2003 states that for wholesale inventories, the single manager would do the following:

a. Provide the specific inventory management functions defined below for assigned conventional ammunition stored at SMCA facilities. These functions may be provided for Military Service retained items on a cost reimbursable basis, as allowed by DoDI 4000.19.

(1) Responsibility for custodial accountability for assigned conventional ammunition. The SMCA is relieved of custodial accountability on receipt by the Military Service accountable officer at the first retail point or consumer level.

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(2) Report as required by the Military Services the status of assigned Military Service owned assets.

(3) Perform physical inventories per DoD 5100.76M.

b. Operate SMCA installations and facilities to support the Military Services conventional ammunition stockpile.

c. Maintain a wholesale distribution system for meeting projected needs of the Military Services.

d. Issue wholesale stocks based on documentation transmitted by the Military Services.

1.2.2.3 SMCA Assigned Ammunition. DoDI 5160.68 assigns the following conventional ammunition item to the SMCA: small arms, motar, automatic cannon, artillery and ship gun ammunition; bombs; unguided rockets, projectiles, and submunitions; chemical ammunition with various fillers; land mines; demolition material; genandes; flares and pyrotechnics; all component items such as explosives; propellants, warheads (with various fillers, such as high explosive, illuminating, incendiary, anti-material, and anti-personnel), fuzes, boosters, and safe and arm devices in bulk, combinations, or separately packaged items of issue for complete round assembly; and related ammunition containers, packing and packaging materials.

1.2.2.4 Service-Retained Ammunition. Certain ordnance items are specifically excluded from the SMCA assignment and are retained for service management. The non-SMCA items are: guided projectiles, rockets, missiles, and submunition, naval mines, torpedoes, depth charges, nuclear ammunition, and included items such as warhead, warhead sections, projectiles, demolition munitions, and nuclear training ammunition; cartridge and propellant actuated devices; chaff and chaff dispensers; guidance kits for bombs and other ammunition; swimmer weapons; explosive ordnance disposal tools and equipment; and their related ammunition containers, packing and packaging materials.

1.2.2.5 SMCA Responsibilities. The Secretary of the Army delegated authorities conferred by DoDI 5160.68 and Section 806 of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 to the Assistant Secretary of the Army (Acquisition Logistics and Technology) (ASAALT) <https://webportal.saalt.army.mil>. The execution of these responsibilities is further delegated to the U.S. Army Program Executive

Office, Ammunition (PEO-Ammo) as the SMCA Executor. ASAALT delegated the mission of monitoring and assessing the execution of the SMCA mission function to the Executive Director for Conventional Ammunition (EDCA) <http://www.amc.army.mil/edca>. The EDCA monitors and assesses the execution of the SMCA mission as it relates to joint service activities. The Commanding General (CG), Joint Munitions Command (JMC), is delegated the responsibility for the conduct of SMCA field operations. Field activities supporting the SMCA consist of ammunition arsenals, activities, depots, and plants under the control of JMC.

1.2.2.6 SMCA Executor. The SMCA Executor (PEO-Ammo) is responsible for the overall execution of the Army's SMCA mission. The SMCA Executor will integrate and execute the SMCA functions outlined in DoDI 5160.68 for the Services to include:

a. Provide support for the Military Services required in planning, programming, and budgeting for resources necessary to accomplish their responsibilities as specified in DoDI 5150.68.

b. Develop and implement processes for integrated planning and prioritization of Services SMCA-assigned ammunition requirements.

c. Ensuring that the Military Services interests are fairly and appropriately represented in SMCA activities (e.g. Configuration Control Boards, Source Selection, Quality Reviews, etc.).

d. Providing the mechanisms and processes to link all stateholders participating in SMCA activities into a single enterprise to support and improve the Military Services needs in wartime and peacetime operations.

e. Managing and executing the authority conferred by Section 806.

1.2.2.7 Executive Director for Conventional Ammunition (EDCA). The ASAALT has designated the U.S. Army Materiel Command (AMC) Deputy Commanding General as the Executive Director for Conventional Ammunition (EDCA). Responsibilities include oversight and assessment of the SMCA Executor in the execution of the mission responsibilities. The EDCA shall be supported by a joint-staffed office of senior service military and civilian ammunition management specialists. The office of the EDCA assists in the execution of the assigned mission to include:

a. Monitor and assess the performance of the SMCA Executor in the execution of mission responsibilities to include reporting findings and providing recommendations to the appropriate stakeholders.

b. Review and assist in resolution of Military Service issues and concerns that cannot be resolved by the SMCA Executor.

c. Participate as a Military Service advocate as required to accomplish the SMCA mission.

d. Coordinate with the Military Services and secretaries, as well as Office of the Secretary of Defense (OSD) staff members, in matters relating to the SMCA mission.

e. Participate as a Military Service advocate in joint service and OSD activities related to SMCA policy and business practices for both peacetime and wartime to include supporting the Joint Logistics Commanders through the Joint Ordnance Commanders Group (JOCG).

f. The EDCA will furnish an annual fiscal year report to the Military Services and ODS staff on execution of the SMCA mission, with emphasis on measureable accomplishments, problem areas and required actions. The report is due by the last day of January of each year.

1.2.2.8 SMCA Field Operating Activity (FOA). The SMCA FOA is responsible for providing logistics and sustainment support to the SMCA Executor and Military Services.

a. Munitions and Logistics Readiness Center (MLRC). The MLRC is responsible to the CG, JMC for execution and management of the SMCA mission for producing, storing, maintaining, and demilitarizing ammunition for all Military Services. The MLRC has the following responsibilities for the execution of SMCA operations:

(1) Act as principal advisor to the CG for all matters pertaining to ammunition supply, maintenance, transportation, customer support, SMCA management, and to ensure execution of the Command ammunition mission.

(2) Coordinate actions for the execution of the SMCA program with all subordinate organizations.

(3) Act as ammunition management and transportation manager for the JMC.

(4) Monitor the progress of critical and high priority armament programs to assure an orderly and timely transfer of procurement and production programs to assure uninterrupted support to the field.

b. Security Assistance Directorate. The JMC Security Assistance Directorate serves as the focal point for the Security Assistance Program for selected countries/international organizations. The directorate also intensively manages, plans, schedules, directs, coordinates, monitors and controls all Foreign Military Sales (FMS) ammunition programs.

1.2.2.9 SMCA Navy Liaison Office (NVLNO). The MLRC and Security Assistance Directorate are supported by joint service liaison offices staffed by U.S. Air Force, U.S. Marine Corps, and U.S. Navy officer and enlisted personnel. The NVLNO, a detachment of the Naval Operational Logistics Support Center is the on-site representative for ammunition and weapons material. The NVLNO is the principal point of contact for all Navy activities, Fleet and shore-based, for oversight and issue resolution with the JMC. It is also the principal support office in assisting the JMC in communicating with and resolving issues concerning Navy activities dealing with the SMCA. The NVLNO is responsible for the following:

a. Participating in Joint Ordnance Commander Group (JOCG) and SMCA policy formulation and directives, instruction, and JCAPP development. Providing liaison for action by Navy representatives to the various JOCG/SMCA action groups. Attending JOCG/SMCA meetings as necessary to comment on and track changes in SMCA operating policies and procedures. This includes the following:

(1) Acting as the focal point between the JMC and Naval Operational Logistics Support Center (NOLSC-AMMO) on the development and implementation of Joint Service Support Agreements.

(2) Ensuring provision of Navy representatives for all Joint Committees and Groups operating under or in support of SMCA operations.

b. Monitoring the execution of Navy representatives by the JMC/SMCA, and facilitating the solution to any problems thereto.

c. Acting as the JMC on-site Navy representative on all matters in the development, facilitation,

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modernization, procurement, production, distribution, maintenance, and demilitarization of non-nuclear ordnance which impact the navy.

d. Representing the Navy in all JMC/SMCA allocation actions affecting Navy items and providing the interface with navy customers of the SMCA to identify Surge Planning and Industrial Preparedness Planning (IPP). This includes the following:

(1) Coordinating, planning, and executing joint service exercises involving JMC/SMCA and Navy activities.

(2) Maintaining liaison for problem resolution with U.S. Navy storage activities regarding pending and actual shipments of Navy material to or from Army activities. Coordinating priority movement of ordnance items when requested by Navy Inventory Manager or Program Managers. Monitoring and providing recommendations on all requests for disposition of Navy material.

(3) Assisting JMC personnel in the establishment and monitoring of Electronic Data Transfer information between the JMC and Navy activities and organizations.

(4) Maintaining liaison for problem resolution with U.S. Navy storage activities regarding pending and actual shipments of Navy material to or from Army activities. Coordinating priority movement of ordnance items when requested by Navy Inventory or Program Managers. Monitoring and providing recommendations on all request for disposition of Navy material.

1.2.3 Joint Ordnance Commanders Group (JOCG).

1.2.3.1 Purpose. The JOCG is chartered by the Joint Logistics Commanders (JLC) to maintain awareness, influence and guide management and execution of conventional ammunition programs including the munitions/weapons interface. The JOCG's responsibilities cover the entire spectrum of conventional ammunition life cycle management, including matters pertaining to the operations of the Single Manager for Conventional Ammunition (SMCA). The JOCG identifies, recommends, and/or directs implementation of joint sponsorship or management to reduce cost, increase effectiveness, and ensure interoperability and/or interchangeability of conventional ammunition systems, and to develop and continuously improve joint

processes and procedures. The definition of conventional ammunition is defined in DoDD 5160.65, Single Manager for Conventional Ammunition (SMCA).

1.2.3.2 Mission. The JOCG provides a forum where all conventional ammunition lifecycle stakeholders, including the top process owners from its member commands and associated or related organizations, jointly define and improve munitions systems. The underlying objective is to identify, implement or recommend for implementation joint opportunities to reduce cost, increase effectiveness and ensure interoperability and/or interchangeability of munitions systems. The JOCG will:

a. Advocate for jointness in conventional ammunition (SMCA).

b. Develop and implement a transformation strategy that encompasses plans and actions the aim of inducing, sustaining and exploiting revolutionary change required to acquire and equip the collective DoD stakeholders with quality conventional ammunition.

c. Function as a conventional ammunition strategic planning forum for transformation of joint policy, procedures and projects.

d. Strive for information dominance by providing an essential forum for conventional ammunition information and decision processing.

e. Provide senior ordnance leaders a source for analysis and planning in concert with service/joint/combined forces requirements.

f. Scrutinize the conventional ammunition environment throughout DoD for forces of change and transformation opportunities.

g. Coordinate service and joint developments in doctrine and systems, subsystems and components, and increase its role in influencing and shaping policy.

h. Identify programs and projects for joint sponsorship or management, and implement or recommend for implementation those in which a common need exists, where differing requirements can be reconciled, or where economies and/or improvements can be obtained.

i. Coordinate and reconcile service, OSD and Combatant Command policies.

j. Advocate effective use of the National Technology Industrial Base.

k. Advocate the transition of conventional ammunition to the SMCA.

1.2.3.3 Responsibilities. To accomplish its objectives the JOCG does the following:

a. The JOCG will develop and implement a transformation strategy that encompasses plans and actions which have the goals of inducing, sustaining, and exploiting revolutionary change required to acquire and equip the collective DoD stakeholders with quality conventional ordnance. The JOCG will jointly review all development, acquisition and production, or support activities of military munitions systems, subsystems, and components identified in DoDD 5160.65. The JOCG will function as a joint service munitions strategic planning cell identifying programs and projects for joint sponsorship or management and implementation, those in which a common need exists, where differing requirements can be reconciled, or where economies and/or improvements can be identified. When all of the preceding criteria cannot be satisfied, the JOCG will not recommend joint program operation, but will ensure that inter-service coordination and exchange of information is optimized and duplication of effort is minimized.

b. The JOCG will develop uniform and standard conventional ammunition policies and procedures for the missions, functions, and responsibilities assigned to the SMCA and Military Services in DoDD 5160.65 and DoDI 5160.68. The JOCG is the approval authority for all Joint Conventional Ammunition Policy and Procedures (JCAPPs) and will coordinate and take action on matters pertaining to the operations of the SMCA. The JOCG will develop and provide to the Joint Logistics Commanders (JLC) standardized practices of munitions management for the services adoption, as they deem appropriate.

(1) In January 2006, the Joint Ordnance Commanders Group (JOCG), and the Joint Conventional Ammunition Policies and Procedures (JCAPPs), were approved by the Office of the Under Secretary of Defense (Acquisition, Technology and Logistics) as an alternative to the corresponding chapters of the DoD 5160.65-M, Single Manager for Conventional Ammunition (Implementing Joint Conventional Ammunition

Policies and Procedures). Approved JCAPPs are available on the JOCG website.

c. The JOCG will coordinate activities with other JLC groups, as appropriate.

d. The JOCG, as directed by the JLC will assume responsibility for the operation of certain JLC panels and coordinating groups. The JOCG will manage these subgroups and take appropriate action to disestablish subgroup(s) or place continuing tasks on a staff-to-staff basis. The JOCG may also charter groups and panels as necessary to execute its mission.

e. The JOCG may enter into Memoranda of Agreement with Non-JLC chartered groups and panels, where appropriate, to support assigned munitions related activities.

1.2.3.4 Membership. The principal JOCG members are the Commanders or their designated representative of the following:

a. Army.

(1) Commander, U.S. Army Joint Munitions Command.

(2) Program Executive Officer for Ammunition (PEO-Ammo).

b. Marine Corps.

(1) Commanding General, Marine Corps Systems Command.

c. Navy.

(1) Director, Supply, Ordnance and Logistics Division, Chief of Naval Operations (Logistics).

(2) Deputy Commander, Warfare Engineering, Naval Sea Systems Command.

d. Air Force.

(1) Commander, Air Armament Center, Air Force Material Command.

1.2.3.5 U.S. Army Project Manager (PM) for Joint Services. Staff to the SMCA Executor, U.S. Army PEO-Ammo, PM Joint Services is the principal customer advocate between the SMCA FOA (Joint Munitions Command (JMC)) and the Military Ser-

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vices. His/her direct interfaces include JMC Deputy for Support Operations (G-3) and Chief, Bombs and Energetics. Other direct interface's include the EDCA, PM Demil, Business Management and the Military Service Liaison positions located at the JMC. PM Joint Services also performs duties as the JOCG Executive Committee Secretariat.

1.2.3.6 Organizational Structure. The organizational structure of the JOCG including subgroups and adhoc groups is shown in Figure 1-2-1.

1.2.4 Department of Defense Explosive Safety Board (DDESB).

1.2.4.1 Background. The U.S. Congress appointed a joint Army-Navy Ammunition Storage Board by the First Deficiency Act of December 22, 1927. The Board was directed to survey the storage of Army and Navy supplies of non-nuclear ordnance and components. There was a special reference to those supplies located near populated communities and industrial areas that could constitute a menace to life and property. As the basic standards of safety, the board adopted the laws of the State of New Jersey that incorporate the American Table of Distances. When these laws were insufficient, the board adopted safety standards developed independently by the Army and the Navy. The survey results were submitted to Congress in a report dated March 3, 1928. Congress ordered the report printed on March 12, 1928, as House of Representatives Document (H. Doc.) No. 199, 70th Congress. The Second Deficiency Act of May 29, 1928, approved the board's report and appropriated funds for the correc-

tion of deficiencies that presented hazards at various locations. In addition, Congress established the Joint Army/Navy Ammunition Storage Board as a permanent organization to keep the Secretaries of the Army and Navy advised of non-nuclear ordnance storage and to prevent hazardous conditions associated with this storage from endangering life and property inside as well as outside of the storage reservations. After creation of the Department of Defense, the board was renamed the Army/Navy Explosives Safety Board and it became the Armed Services Explosives Safety Board. With inclusion of the Defense Agencies within the board's scope, it has been designated the Department of Defense Explosive Safety Board (DDESB), its present name.

1.2.4.2 Purpose. The purpose of the DDESB is to establish and recommend safety standards. These standards are designed to prevent or correct hazardous conditions associated with non-nuclear ordnance and explosives manufacture, test, handling, rework, transportation, storage, and disposal. These safety standards are the basis for Navy safety policy. Responsibilities of the DDESB have been developed under the policy direction and program guidance of the Under Secretary of Defense for Acquisition and Technology (USD, AT&L) and in agreement with other DoD policies and directives. The DDESB responsibilities and DoD explosives safety standards are contained in DoDD 6055.9 of 29 July 1996. The Navy and Marine Corps have amplified these standards into NAVSEA OP 4 and OP 5. Navy and Marine Corps activities shall operate under the criteria of the NAVSEA standards, this document, and OPNAV instructions addressing explosives safety.

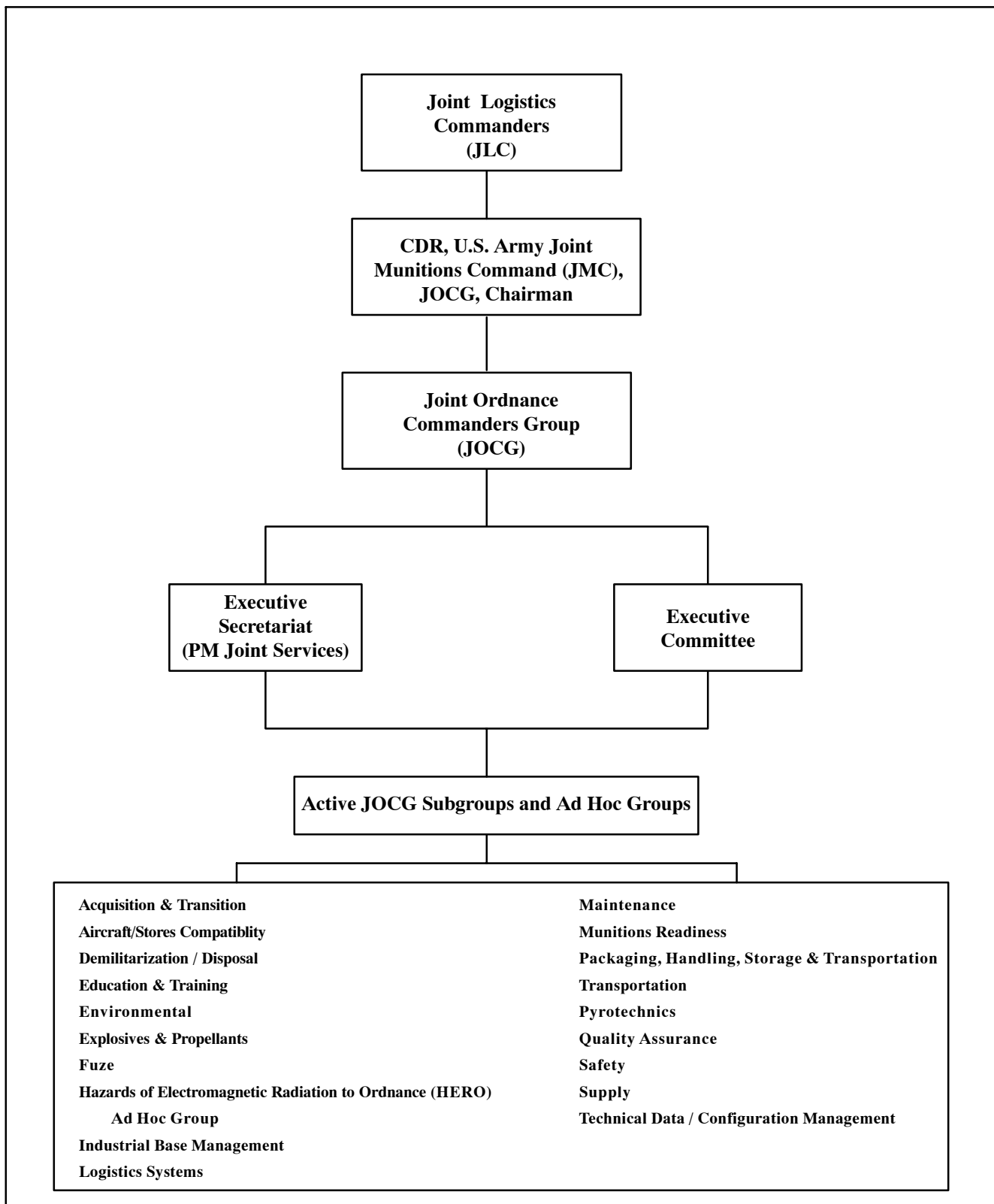


Figure 1-2-1. JOCG Organizational Structure

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1.2.4.3 Authority. The jurisdiction of the DDESB extends to facilities where explosives are manufactured, tested, handled, reworked, transported, stored, or disposed of. These facilities may be Army, Navy, Marine Corps, and Air Force. They may be within the United States, its territories and possessions, or within areas where the United States has long term rights or as specifically designated by the Secretaries of the Military Departments in areas occupied by the armed forces.

1.2.4.4 Membership. The chair of the DDESB is a military 06 position which rotates among the Military Services. The chair reports to the USD AT&L and has a management staff which is responsible for maintenance of the DoD explosive safety standards and conducting explosives safety inspections. The actual board is comprised of the DDESB chair and a representative from each of the Military Services. The Navy representative on the board is the incumbent of OPNAV N411.

1.2.4.5 DDESB Surveys. The DDESB surveys, on an annual or biennial basis, military shore activities that are involved in any way with handling, processing, or storing of explosives. Normally, the Commanding Officer of an activity is notified in writing by the DDESB from 2 to 4 weeks prior to the scheduled time of inspection. The responsibilities of the activities with respect to these surveys are described in OPNAVINST 8020.14/MCO P8020.11 and are briefly described in the following:

a. When advised of a forthcoming DDESB survey, the Commanding Officer of an activity shall make arrangements for all necessary assistance to DDESB survey personnel. Arrangements will include providing station maps, population data, and non-nuclear ordnance handling and storage data. Station maps will include a copy of the general development map for the activity, appropriately marked with explosive safety distance arcs.

b. The DDESB survey personnel shall be given complete cooperation in the performance of their duties.

c. The Commanding Officer shall be present, or be represented, at the inspection debriefing.

d. Immediate action shall be taken to correct obvious and readily correctable violations of existing regulations and directives that have been detected by DDESB inspection personnel. Action shall be taken to terminate operations identified as unacceptable hazards and immediately report issues and circumstances to the appropriate chain of command and the CNO. Action on all other recommendations shall be held in abeyance pending review and approval, through the chain of command, by CNO.

e. Upon receipt of the DDESB Survey Report, USN activities submit to CNO, via the appropriate chain of command (copy to NOSSA, if not in the chain of command), a brief report defining what local corrective action was or will be taken to correct the deficiencies. Negative reports are not required if no deficiencies were cited. This report will be forwarded within 10 working days after receipt of the DDESB report.

1.2.4.6 Communication with the DDESB.

a. All written communications intended for the DDESB shall be routed via the chain of command and NOSSA to CNO. Direct correspondence with the DDESB is not authorized unless previously directed by CNO. Written communication initiated by the DDESB, except explosives safety survey notifications, citing CNO as "copy to" addresses, and addressed to any DON command, shall be immediately re-addressed to CNO.

b. Direct communication by telephone, facsimile or email with DDESB staff members is not authorized unless initiated by a DDESB staff member or it is effected with the approval of, and preferably by, the USN member or alternate member of the DDESB. No DON presentation, however rough or informal, is to be made to the chairperson, staff members or the DDESB without prior approval of a DON member/alternate member. All such presentations will be attended by one of these officials unless attendance is specifically declined.

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CHAPTER 1.3

Management Information System Links

1.3.1 Ordnance Information System (OIS).

1.3.1.1 General. As discussed in NAVSUP Pub P-724, the OIS is an integration of ordnance logistics systems used by Navy and Marine Corps for ordnance asset management and accountability. The OIS is comprised of integrated applications and distributed databases providing controlled global access, wherein a single action results in system-wide update. OIS is managed by Naval Operational Logistics Support Center (NOLSC-AMMO).

1.3.1.2 Ordnance Information System-Wholesale (OIS-W). Classified OIS-W is the single repository for worldwide status of Navy expendable non-nuclear ordnance requirements, assets, production, expenditures, costs, and technical inventory management data, regardless of inventory management or ownership responsibilities. OIS-W supports the ammunition management information needs of the stockpile managers, Acquisition/Program Managers, Chief of Naval Operations (OPNAV), Systems Commands (SYSCOMS), Marine Corps (Aviation), Fleet Commanders (FLTCOMs), Type Commanders (TYCOMs), and other major claimants

1.3.1.3 OIS-W provides the capabilities to:

- a. Maintain a central record of stock status information (including serviceable and non-serviceable assets) updated daily by transaction reports from all holders of Navy owned assets.
- b. Maintain a central record of worldwide asset positions and expenditures updated at appropriate intervals in accordance with current requirements.
- c. Maintain a central record of material in-transit between contractors and Naval activities, and in-transit among Naval activities, updated daily.
- d. Maintain a central record of material in production, procurement, or under renovation, updated daily.
- e. Maintain a central technical data file for inventory management functions as a source for Navy Stock Lists; change notice cards; packaging, safety and

transportation management publications; and for use in stratification, budgeting, readiness determinations, and component requirement computations, and as a basis for selection or recommending substitutions or alternate items for requisitioning, stratification, or budgeting process.

f. Maintain a central record of ammunition storage capabilities for use in measuring storage capabilities against requirements.

g. Maintain a central record of actual and potential production capabilities of Navy and selected commercial producers.

h. Provide for adequate protection of data against such contingencies as fire, inadvertent file destruction, loss of power, etc.

1.3.1.4 Information available in OIS-W:

a. New stock number, Navy Ammunition Logistics Code (NALC) and Department of Defense Identification Code (DODIC) assignments, Change Notice Bulletins, and technical characteristics.

b. Quantity on hand, location (including in-transit) due-in, condition, receipts, issues, serial number and configuration data for serialized weapons/components, reservations, or restrictions, etc.

c. Tracking of due-ins based on scheduled delivery dates, generates Prepositioned Material Receipt Cards, processes shipment/performance notification, and computes administrative and production lead-time.

d. Tracking of requisitions, modifications, referrals, follow-ups, shipping status, issues, receipts, cancellations, Material Release Orders (MROs), and results of the cross-decking of assets.

e. Financial inventory accounting and billing functions.

f. Receipt transactions from commercial procurement, receipt from storage locations, issue of material from stock, increase/decrease adjustments, dual adjustments transactions, re-identification of stock, asset status cards, for further transfer, material.

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g. History of items, segments or lots of explosive, ordnance/material declared as a safety hazard, unsuitable for use or suspended for any reason.

h. Identification and document transfer of unserviceable or excess/surplus material from inventory to disposal account.

i. Identification and tracking ammunition loads to support ship and organizational mission.

j. Distribution of major CONUS assets based on requirements and the assets held by the Major Commands.

k. Monthly reporting of OIS-W assets by Lot Number.

l. Tracks and budgets Outside Continental United States (OCONUS) transportation requirements/shipments.

m. Comparison of ammunition to inventory assets requirements to determine excess inventory.

n. Provides for the processing, monitoring, reconciliation and generation of physical inventory transactions for current stock records.

o. Tracks requirements and allows users to group similar Navy Ammunition Logistics Codes (NALCs) for asset and expenditure retrievals/reports through control number processing.

p. Tracks training requirements, allocations and expenditures.

1.3.2 OIS-W Links. OIS-W, as the central, single-point reference for Navy ordnance, is the major automated system linking all of the other automated systems being used by the Navy for ordnance management functions. The other automated systems and their type of link to OIS-W is identified in Figure 1-3-1.

a. When available, Retail Ordnance Logistics Management System (ROLMS) is the method to link

with OIS-W for all ship and shore activity asset management and reporting requirements. Reporting activities can also link with OIS-W by transmission of data via Naval Message from local communications centers through the Defense Automatic Addressing System (DAAS) <https://www.daas.dla.mil/daashome/>. DAAS acts as a redirector for non-ROLMS activity message Ammunition Transaction Reports (ATRs), sending them to their appropriate destination(s). DAAS receives other message ordnance data (i.e. requisitions), processes them, and then forwards them to the appropriate destination(s) as well. ROLMS equipped activities can process either Transaction Item Reports (TIRs) or ATRs. The status of MILSTRIP requisitions that have been processed through DAAS can additionally be tracked using a web-based tool developed by the Defense Automated Addressing System Center (DAASC). Contact DAAS to determine the best account for your activity.

b. Most activities have transitioned to the Defense Messaging System (DMS). NAVSUP Pub 724 includes guidance regarding interface with DMS.

1.3.2.1 OIS-W System Interfaces. OIS-W interfaces with other information systems to receive and exchange inventory and technical data and related information. These systems are:

- a. Distribution Standard System (DSS).
- b. Federal Logistics Information System (FLIS).
- c. U.S. Army Commodity Command Standard System (CCSS).
- d. U.S. Army Standard Depot System (SDS).
- e. Retail Ordnance Logistics Management System (ROLMS).
- f. Marine Corps Ammunition Accounting/Reporting System (MAARS II).
- g. Explosive Safety Technical Manual System (ESTMS).
- h. MAGTF Data Library (MDL).

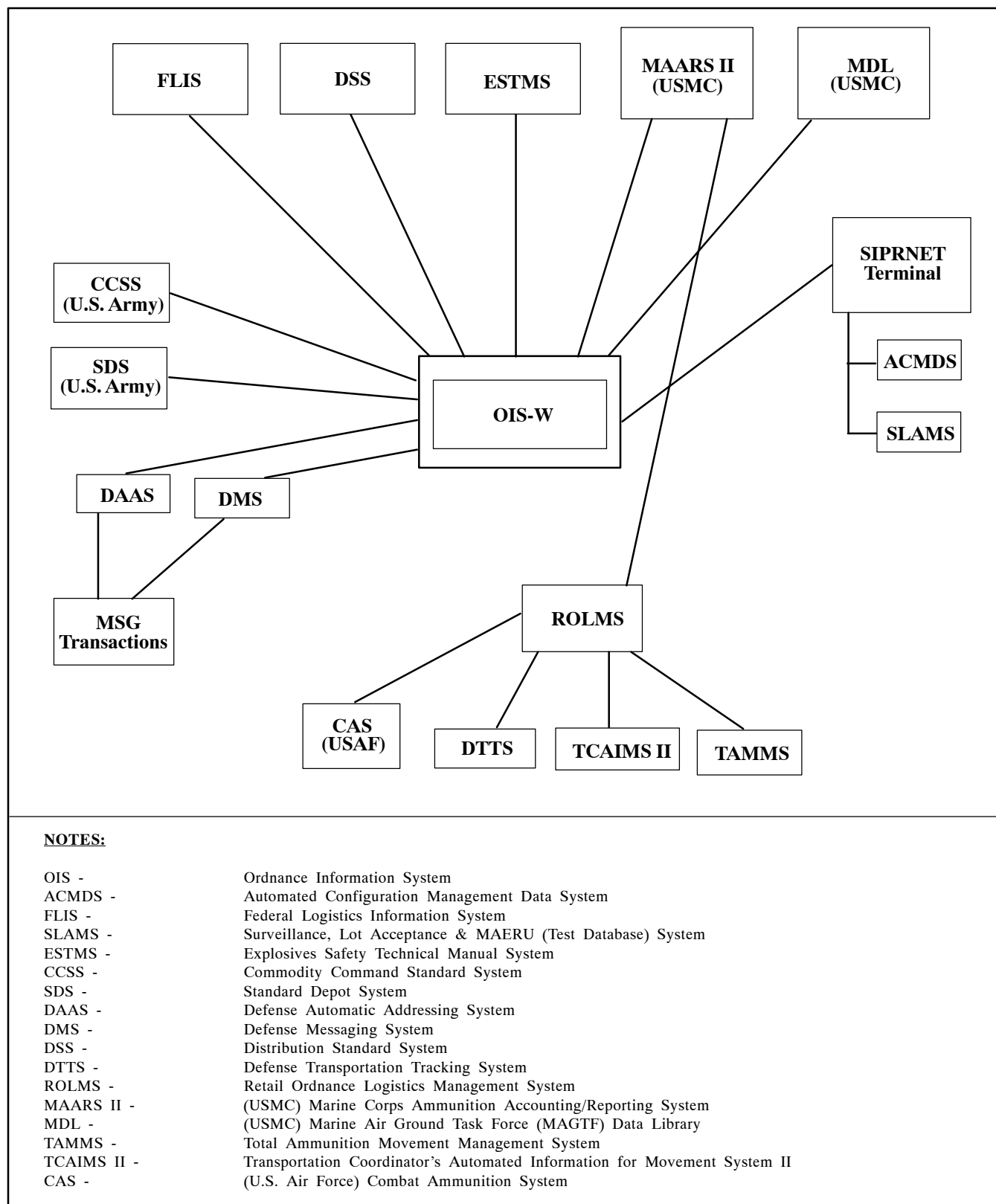


Figure 1-3-1. Naval Ordnance Logistics Support Center (NOLSC-AMMO) Ordnance Information System-Wholesale (OIS-W) Links

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CHAPTER 2.1**General****Table of Contents**

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CHAPTER 2.1

General

2.1.1 Perspective. There are many facets to managing the ammunition program for the Navy. Each of the following Chapters in this manual covers a different facet of ammunition management (acquisition, maintenance, logistics, disposal, etc.). This Chapter on program management is the aggregation of the financial management portion of each of the different facets. The primary focus of program management is to define a balanced program of acquisition, maintenance, and expenditure for each assigned ammunition item. The personnel responsible for program management are responsible for supporting the defined program through the levels of budget reviews resulting in annual Congressional authorization and appropriation acts.

2.1.1.1 Regulation. The Financial Management Regulation DoD 7000.14-R is the governing regulation for all financial management policies and procedures. The DoD regulation should be referred to for clarification and ensuring you have the latest guidance and requirements. The following are general policies and excerpts from this regulation for information purposes.

2.1.1.2 Program Issues. Many issues are faced by those responsible for program management, some of which are outside their scope of control. The defined program must be continually adjusted from year to year to compensate for these external issues. The biggest issues faced on a recurring basis include the following:

a. **Undistributed Budget Cuts.** A program's share of an undistributed budget cut passed down from the Navy's Financial Manager must be absorbed and changes made to the program in the out years to make up for the cut.

b. **Congressional Budget Changes.** A program is often changed by Congressional action for reasons other than those used to determine program requirements. Programs must be adjusted to account for these pluses or minuses, or shifts from one part of the program to another.

c. **Production Problems.** Funds budgeted for procurement of an item, which is in production and

experiencing problems affecting the delivery schedule, are usually cut or deferred to later years during the budget review process. The managers get the opportunity to reclaim these cuts or deferments. If they are not successful in getting the funds restored, they must adjust their defined program accordingly.

2.1.1.3 Issue Impact. These issues listed above, and many more which happen on occasion, greatly impact the Program Manager's (PM) ability to prudently manage the assigned program. The impact of these changes is often the inability to achieve or maintain a defined inventory objective to support Fleet requirements.

2.1.2 Public Laws. New laws and requirements have been passed by the U.S. Congress affecting accounting and financial management practices. The following Acts have a direct bearing on the processes used in ordnance program management:

2.1.2.1 Federal Managers Financial Integrity Act of 1982 (FMFIA). The FMFIA requires that each Executive Agency conduct annual evaluations to determine the adequacy of its systems of internal accounting and administrative controls.

2.1.2.2 Chief Financial Officers Act of 1990 (CFO Act). The CFO Act focuses attention on the need for a strong financial management function. The Department of the Navy (DoN) is required to prepare financial statements for its trust and revolving funds according to generally accepted accounting principles established by the Federal Accounting Standards Advisory Board.

2.1.2.3 Government Performance and Results Act of 1993 (GPRA). The GPRA requires the systematic identification of output and outcome measurement in budget formulation and management. It also requires Federal agencies to set performance goals and to relate those goals to budget requests and to actual results.

2.1.3 Organizational Relationships. The organizations involved in program management are somewhat static from year to year. However, many of the personnel involved in the funding chain processes in the Comptroller and Congressional offices have

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changed from year to year. This continual turnover of personnel provides a significant challenge to the PM. The PM must ensure that the surface ammunition programs are adequately defined to preclude changes during the review process, based on a lack of understanding. Figure 2-1-1 identifies the organizations involved in the program management processes and their relationship to each other. The following sections will describe the program management processes and identify the organizational responsibilities for those processes.

2.1.4 Types and Purposes of Appropriations. The Navy receives appropriations included in the DoD Appropriations Act. These appropriations are either annual, multiple year, or no-year. The language of each appropriation has evolved over the years to express precisely the purposes for which the funds are legally available, in accordance with the intent of Congress regarding the use of appropriated funds. Despite the wide variety of naval programs, the text for each appropriation is relatively brief. Such brevity is possible due to the statutory references to basic authorizing legislation and because of the cumulative history of legal interpretation of the words and phrases. The ordnance programs are programmed, budgeted, and executed within the structure of the following appropriations as defined by Congress.

2.1.4.1 Research, Development, Test, and Evaluation, Navy (RDT&E,N). The term “Research and Development (R&D)” is intended broadly to include the work performed by a government agency or by private individuals or organizations under a contractual or grant arrangement with the government.

a. Research is systematic study directed toward fuller scientific knowledge or understanding of the subject studied.

b. Development is the systematic use of the knowledge and understanding gained from research, for the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes. RDT&E,N appropriation is defined as follows:

NOTE

“RDT&E will finance research, development, test and evaluation efforts performed by contractors and government installations, including procure-

ment of end items, weapons, equipment, components, materials and services required for development of equipment or material.”

c. Time Limitations.

<u>Approp</u>	<u>Years For</u> <u>Obligation</u>		
	New	Adjust &	Closed End
	Obligation	Disburse.	of Year
	<u>Unexpired</u>	<u>Expired</u>	<u>Cancelled</u>
RDT&E	2	3 to 7	7

d. Funding Coverage. Funding under the RDT&E,N appropriation is required for developing new ordnance items or components which are not currently in the programmed procurement plan.

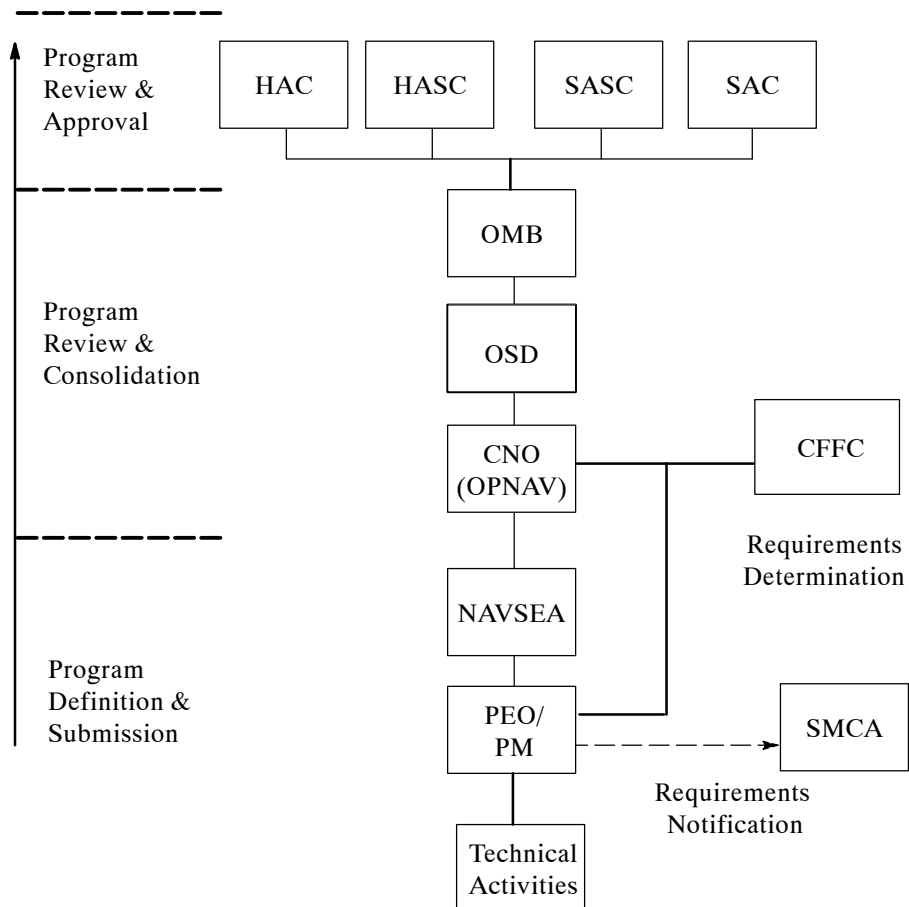
2.1.4.2 Procurement, Ammunition Navy, Marine Corps (PAN-MC). The DoD Appropriation Act provides language for the PAN-MC appropriation commencing in FY 95. Per DoD Financial Management Regulation, the criteria for cost definitions consider the intrinsic or innate qualities of the item such as durability in the case of an investment cost. Investments are the costs that result in the acquisition of, or addition to end items. These costs benefit future periods and generally are of a long-term character. Investments are costs to acquire capital assets. All items of equipment, including assemblies, ammunition and explosives are classified as investments. The PAN-MC appropriation is used for ammunition procurement.

a. Time Limitations:

<u>Approp</u>	<u>Years For</u> <u>Obligation</u>		
	New	Adjust &	Closed End
	Obligation	Disburse.	of Year
	<u>Unexpired</u>	<u>Expired</u>	<u>Cancelled</u>
PAN-MC	3	4 to 8	8

b. Funding Coverage. Funding under the PAN-MC appropriation covers the following ammunition management areas.

- (1) Ammunition Procurement.
- (2) Related Support Equipment Procurement.

**NOTES:**

HAC - (Congressional) House Appropriations Committee
 HASC - (Congressional) House Armed Services Committee
 SASC - (Congressional) Senate Armed Services Committee
 SAC - (Congressional) Senate Appropriations Committee
 OMB - (Executive) Office of Management and Budget
 OSD - Office of the Secretary of Defense
 CNO - Chief of Naval Operations
 CFFC - Commander, Fleet Forces Command
 NAVSEA - Naval Sea Systems Command
 PEO/PM - Program Executive Officer/Program Manager
 SMCA - Single Manager for Conventional Ammunition

Figure 2-1-1. Program Management Organizational Relationships

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(3) Acquisition Engineering.

(4) Product Improvement Programs.

2.1.4.3 Operation and Maintenance, Navy (O&MN) appropriation. The criteria for cost definitions consider the intrinsic or innate qualities of the item such as consumability in the case of an operating cost. Expenses Expenses are the costs incurred to operate and maintain the organization, such as personal services, supplies, and utilities. Expenses are costs of resources consumed in operating and maintaining the Department of Defense. The following guidelines shall used to determine expense costs:

(1) Food, clothing and fuel.

(2) Maintenance, repair, overhaul, rework of equipment.

a. Time Limitations:

	<u>Years For</u>		
	<u>Obligation</u>		
	New	Adjust &	Closed End
	Obligation	Disburse.	of Year
<u>Approp</u>	<u>Unexpired</u>	<u>Expired</u>	<u>Cancelled</u>
O&MN	1	2 to 6	6

b. Funding Coverage. Funding under the O&MN appropriation Budget Activity 7 covers the following ammunition management areas.

(1) Ordnance In-Service Management.

(2) Ordnance Inventory Management.

(3) Ordnance Logistics Management Support.

(4) Surface Wide Transportation (SWT).

(5) Ordnance Demilitarization/Disposal Management.

(6) Training.

2.1.5 Direct and Reimbursable Budget Plans.

2.1.5.1 Direct Budget Plan. Per DoD Financial Management Regulation this plan includes those items of material to be purchased for delivery to service inventory and those procurement programs that support the acquisition of material for U.S. Forces. Financing

for the direct budget plan is derived from: new budget authority provided by the Congress, the transfer of resources from other appropriations, and reimbursements. When dealing with reimbursements involving the sale of material, three situations can arise.

a. Replacement-in-Kind. In this situation an item of material is sold and will require replacement with an item of the identical type, model, and series or modified version of the same basic model. In this situation the reimbursement from the sale will be included in reimburseable financing and the buy-back of the item in the reimbursable program. There will be no reflection of this transaction in the Direct Budget Plan. For an ammunition item, the replacement-in-kind policy permits replacement of a round with any round that provides the same warfighting mission capability, providing the round to be purchased has been previously approved by the Congress for procurement, and the inventory objective presented to the Congress is not exceeded.

b. Replacement. In this situation an item of material is sold and will require replacement with an item of the identical type, model, and series or modified version of the same basic model. In this situation the reimbursement from the sale will be included in reimbursable financing and the buy-back of the item in the reimbursable program. There will be no reflection of this transaction in the Direct Budget Plan. For an ammunition item, the replacement-in-kind policy permits replacement of a round with any round that provides the same warfighting mission capability, providing the round to be purchased has been previously approved by the Congress for procurement, and the inventory objective presented to the Congress is not exceeded.

(1) Items sold from inventory with a unit cost less than \$5000 will be treated as a replacement-in-kind if an improved model of the same end item is being procured, it provides the same warfighting capability, and the inventory objective being presented to Congress is not exceeded.

(2) If an item is eligible for replacement or replacement-in-kind and is not replaced, the reimbursement should be treated as a "free asset."

c. Free Assets. In this situation an item of material is sold and will not require replacement. All free assets from Foreign Military Sales (FMS) transactions are required to be deposited into the Miscellaneous Receipts of the U.S. Treasury in accordance with 10 U.S.C. 114(c)(2).

2.1.5.2 Reimbursable Budget Plan. Per the DoD financial Management Regulation, this plan includes those items of material to be purchased for delivery to and use by customers. Financing for the reimbursable budget plan is derived from:

a. Anticipated reimbursement based upon customer orders received for items (not stocked by or purchased for procuring service use) to be purchased for direct delivery to a customer. (Direct citation of customer funds for procurement against this type of order is encouraged where common components and/or common assemble with service production of similar items are not involved).

b. Anticipated reimbursement based upon customer orders received or to be received for items common to the procuring service and customer, for direct delivery to the customer.

c. Where the material item is to be made available from on-order quantities under an existing contract, the sales transactions will be reflected as reimbursable transactions. The quantities and costs of the replacement procurement will be included in the reimbursable program.

d. Where the material item is to be made available directly from a contract awarded after the date of the sales agreement and the contract included a particular quantity of the item to fulfill the sales agreement, the transaction will be reflected as a direct cite transaction.

e. In replacement-in-kind situations, the proceeds from the sale will be included under reimbursable financing and the buy-back program will be included in the Reimbursable Budget Plan.

f. In "replacement" situations, the proceeds from the sale will be included under reimbursable financing but the buy-back program will be included under the Direct Budget Plan (not the Reimbursable Budget Plan).

2.1.5.3 Funding Coverage. Funding under the Reimbursable program covers the following ammunition management areas

a. Security Assistance Program.

b. Other service use of Navy ordnance during joint exercises.

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CHAPTER 2.2

The Planning, Programming, Budgeting and Execution System (PPBES)

2.2.1 General.

2.2.1.1 Purpose. Per DoD 7000.14R the PPBES is a cyclic process containing 3 distinct but interrelated phases: planning, programming, and budgeting. In addition to establishing the framework and process for decision making on future programs, the process permits prior decisions to be examined and analyzed from the viewpoint of the current environment (threat, political, economic, technological, and resources) and for the time period being addressed. The decisions are based on and consistent with a set of objectives, policies, priorities, and strategies derived from National Security Decision Directives. The ultimate objective of the PPBES is to provide the operational commanders the best mix of forces, equipment, and support attainable within fiscal constraints. Throughout the PPBES, the Secretary of Defense (SECDEF) provides centralized policy direction while placing program execution authority and responsibilities with the DoD Components. The DoD Components provide advice and information as requested by the Secretary of Defense and his staff so that execution and accountability may be assessed properly. The purpose of the PPBES is to produce a plan, a program, and finally, a budget for the Department of Defense. The budget is forwarded in summary to the President for his approval. The President's budget is then submitted to Congress for authorization and appropriation.

2.2.1.2 Instructions. DoDI 7045.7 describes the DoD Planning, Programming, Budgeting System (PPBS) in detail.

2.2.1.3 Cyclical Process. The DoD internal 2-year Planning, Programming, Budgeting, and Execution (PPBE) process will guide the Department's strategy development, identification of needs for military capabilities, program planning, resource estimation and allocation, acquisition, and other decision processes. The Quadrennial Defense Review (QDR) will continue to serve as the department's major statement of defense strategy and business policy. It also will continue to be the single link throughout DoD that integrates and influences all internal decision processes.

a. The first year of the 2-year cycle will include the Strategic Planning Guidance (SPG), a Joint Programming Guidance (JPG), a Program Objective Memorandum (POM), and a Budget Estimate Submission (BES). Program Decision Memoranda (PDM) will implement POM decisions; Program Budget Decisions (PBDs) will implement BES decisions.

b. The second year of the internal Defense Department 2-year cycle, or the off-year, will include an SPG, if the Secretary of Defense decides an SPG is necessary. If an off-year SPG is issued, it will not introduce major changes to the defense program, except as specifically directed by the Secretary or Deputy Secretary of Defense. Rather than a POM during the off-year, the Components will submit Program Change Proposals (PCPs) to accommodate real world changes, and as part of the continuing need to align the defense program with the defense strategy. The Components will submit Budget Change Proposals (BCPs) instead of a BES during the off-year. BCPs will accommodate fact-of-life changes resulting from confessional actions. The off-year also includes execution reviews that will provide the opportunity to make assessments concerning current and previous resource allocations and whether the Department achieved its planned performance goals. Performance metrics will be the analytical underpinning to ascertain whether an appropriate allocation of resources exists in current budgets.

2.2.1.4 Publication. Timely publication of the PPBS documents is critical since they represent a coordinated effort among many participants within the Services. To achieve timeliness, the Defense Resources Board (DRB) annually develops and issues a schedule of significant events for the upcoming calendar year. The DRB schedule specifies the time for the following:

- a. Submission by the Joint Chiefs of Staff (JCS) of a recommended national military policy and related military advice.
- b. Submission and review of the POM.
- c. Issuance of the Defense Planning Guidance (DPG).

- d. Submission by the JCS of the Joint Program Assessment Memorandum (JPAM).
- e. Development and processing of Issue Books (IBs).
- f. Issuance of the SECDEF PDMs.
- g. Budget estimates.
- h. PBDs.
- i. Management Initiative Decision (MID).

2.2.1.5 PPBS Process. Figure 2-2-1 illustrates the sequence of the three PPBS phases.

2.2.2 Planning Phase. The planning phase of the PPBS is primarily an Office of the Secretary of Defense (OSD) level evolution with inputs from the JCS, the Joint Commands, and the Military Departments. The Defense planning process starts with the Joint Strategic Planning Document (JSPD) which is developed from the Joint Long Range Strategic Appraisal (JLRSA). The OSD staff takes the JSPD and inputs from the Commander's, PACFLT/LANTFLT and Military Departments and develops the Defense Guidance (DG). The JCS strategic planning process is unconstrained by resources, and develops minimum risk force levels. OSD attempts to define a fiscally attainable planning force in the DG.

2.2.2.1 Joint Long Range Strategic Appraisal (JLRSA). The JLRSA is prepared by the JCS to provide transition from long-range to mid-range strategic planning and to stimulate focus on strategic studies. Additionally the JLRSA influences the development of the JSPD.

2.2.2.2 Joint Strategic Planning Document (JSPD). The JSPD is submitted by the JCS to SECDEF. It is the product of inter-Service coordination and contains the military strategic concepts and recommendations of the Military Services for attaining the national security objectives. It includes a summary of the JCS planning force levels required to execute the approved national military strategy with a reasonable assurance of success. It also contains views on the attainability of these forces in consideration of fiscal responsibility, manpower resources, material availability, technology, industrial capacity, and interoperability in joint and cross-Service programs. The JSPD shall also provide an appraisal of the capabilities and risks associated with the programmed force levels. Recommended changes to current force planning and program guidance are included. The JSPD is the basic statement

that provides a vehicle for an exchange of views on defense policy among the President, SECDEF, JCS, and the National Security Council.

2.2.2.3 Defense Planning Guidance (DPG). After consideration of the views and recommendations expressed in the JLRSA and JSPD, a draft DPG is issued to solicit comments of all DoD Components, including the Commander's, PACFLT/LANTFLT, on the major issues, problems, and resource constraints in developing and programming forces to execute the policy, strategy, and management direction. The approved version of the DPG is subsequently promulgated and constitutes the authoritative statement directing defense fiscal and planning guidance for development of the Program Objectives Memorandum (POM). The DPG will consist of the following elements:

- a. Near and long-term threat assessment and opportunities.
- b. Policy and strategy guidance.
- c. Force planning guidance.
- d. Resource planning guidance.
- e. Fiscal guidance.
- f. Unresolved issues requiring further study.

2.2.3 Programming Phase. During the PPBS programming phase, DoN assesses the status of its programs as they evolved from the previous cycle of PPBS, identifies unresolved issues, and translates the DPG into achievable packages recognizing fiscal and resource constraints. The product of the DoN programming process is the DoN POM. The POM is a comprehensive and detailed expression of the total requirements affordable within fiscal constraints associated with the mission and commitments of the DON. The POM is presented as changes to the President's Budget to update the OSD FYDP database.

2.2.3.1 Integrated Warfare Architectures (IWARS):

- a. Background: The IWARS process starts the Navy programming cycle and serves as a road map to identify alternative paths to achieve warfare and support area objectives based on cost versus capability analysis of options. IWARS focuses on capabilities vice systems and provides linkage between the Navy's strategic vision, threat assessment, and guidance for the acquisition community.

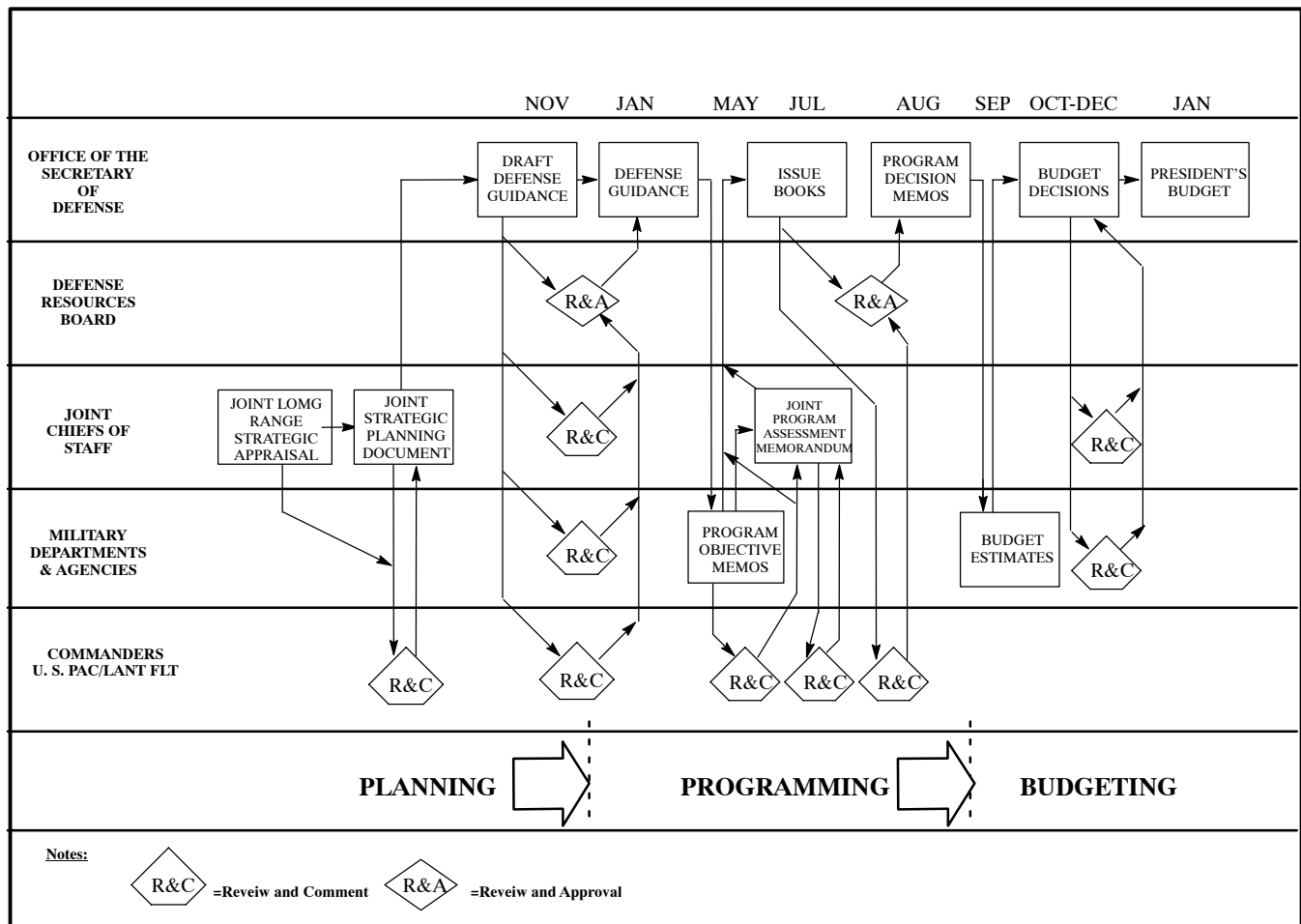


Figure 2-2-1. The PPBES Process

OPNAVINST 8000.16C VOLUME III 1 SEPTEMBER 2006**b. Description:**

(1) The IWARS is a capabilities-based statement of Navy status and needs by functional area based on architectural plans. The architecture is designed to integrate warfare capabilities and resources across specific platforms and support areas. Analysis is intended to provide warfare focus across capability elements (end-to-end), link to other warfighting and support IWARS, and provide synchronization across the IWARS functional areas.

(2) The IWARS process replaced the Investment Balance Review and Joint Mission Area studies of the past. IWARS teams are chaired by OPNAV and composed of representatives from the Secretary of the Navy's Office, Commander's, PACFLT/LANTFLT, CNO, resource sponsors, acquisition community, Naval Warfare Development Command (NWDC), Joint Warfare Capability Assessment (JWCA) teams, and the Marine Corps. The IWARS teams use data from Congressional Guidance, current POM, Studies and Analysis War Games, DoN Chief Information Officer (CIO), Threat Assessments, Defense Planning Guidance, Chairman of the Joint Chiefs of Staff Program Recommendation (CPR)/Program Assessment (CPA), and other IWARS Teams. The intent is to look at capabilities 10 to 15 years in the future from a Program Manager (PM) and industry perspective.

(3) The goal of the IWARS process is to provide an analytic basis for programmatic decisions. Each IWARS team will identify shortfalls and redundancies, integrate and synchronize issues, and identify cost alternatives and options at system, engagement, and campaign levels. The end product of each IWARS team is a CNO Program Analysis Memorandum (CPAM), which balances programs across capability areas. The CPAM describes the impact on warfare capability, assesses current programs, and recommends trade-offs to link the Navy's strategic vision, threat assessment, and programs to maintain a balance between warfare capability and current FYDP programs within the overall Navy funding limitations. This leads to a summary CPAM, the formal recommendation for programming and fiscal guidance for resource Sponsor Program Proposals (SPPs).

c. The 12 IWARS functional areas are:

(1) Maritime Dominance includes undersea warfare superiority, anti-submarine warfare, mine warfare and surface warfare superiority.

(2) Deterrence includes strategic deterrence, counter weapons of mass destruction forward presence and engagement.

(3) Power Projection includes strike warfare, littoral/expeditionary warfare, and naval fire support and USMC ship-to-objective maneuver.

(4) Air Dominance includes air superiority, theater ballistic missile defense and cruise missile defense.

(5) Information Superiority/Sensors includes command, control, communications, computers, intelligence, surveillance, and reconnaissance. Also includes information processing exploitation and dissemination and information warfare/information management.

(6) Sustainment includes Combat Logistics Force (CLF), Military Sealift Command (MSC), and Service Wide Transportation (SWT).

(7) Infrastructure includes base operations support, force protection, MILCON, environment, base realignment and closure and administrative support.

(8) Manpower and Personnel includes military pay, Navy, quality of life, recruiting, manpower support and health affairs.

(9) Readiness includes operations tempo, maintenance, spares, operational & training support.

(10) Training and Education includes individual training, ranges and targets, and Naval Post Graduate school.

(11) Technology includes research, development, test, and evaluation.

(12) Force Structure includes ship procurement Navy, aircraft procurement Navy and associated RDT&E.

2.2.3.2 OPNAVINST 3050.23 explains alignment and responsibility of Navy requirements generation and resource planning, modifying the Department of the Navy's Programming, Planning and Budgeting System (PPBS) to focus on capability-driven warfighting requirements to include:

a. Increased emphasis on capabilities required for delivery on a Battle Force vice platform level.

b. Enhanced ability to better communicate a long-term warfighting vision with attendant procure-

ment, force structure, and capability to counter threats and achieve mission success via application of analysis both within and beyond programming Fiscal Year Defense Plans (FYDPs).

c. Establishing the Battle Force Capability Assessment and Programming Process (BCAPP) (formerly referred to as the “Mission Capability Packages Process”) as the tool to accomplish the modification and purpose as described.

d. Establishing the need for the development of an affordable long range naval warfare Integrated Strategic Capability Plan (ISCP) (formerly referred to as the “ISBP”) and an INtegrated Sponsor’s Program Proposal (ISPP) for warfare systems that meet Commander’s PACFLT/LANTFLT requirements.

e. Establishing Capability Sponsors (CS) within the Office of the CNO responsible for developing Mission Capability Packages (MCPs) within designated domains and coordinating these packages with the Resource Sponsors, Commander’s PACFLT/LANTFLT, and acquisition community.

f. Implementation. Programs will be defined in terms of application to mission capabilities and grouped into associated MCPs. MCPs will:

(1) Serve as the primary mechanism used to identify the current baseline of capabilities and to accurately forecast capability evolution based on defined assumption.

(2) Constitute the elements to assist in planning and programming integrated systems capabilities as identified in Joint and Navy strategies.

(3) Fuse validated and approved architectures and interoperability requirements per CJCSI 3170.01 and DoD 5000.2-R and reflect milestones and program decisions.

g. Integration across MCPs will be assessed through the development of an ISCP that will become Navy’s “warefare investment strategy” for programming operational capabilities.

h. The product of the ISCP and resource sponsor programming, input and analysis will be an ISPP. It will be approved and presented as a consolidated programming proposal that will integrate all warfare areas within a specific Program Review (PR) or POM built

with with incorporation of guidance issued and balanced within controls.

2.2.3.3 Program Objective Memoranda (POM). Annually, each service submits to SECDEF a POM or Program Review (PR) that is consistent with the strategy and guidance, both programmatic and fiscal, as stated in the DPG. The POM is associated with the even years and a PR with the odd years. PRs are minor adjustments to the prior POM NNOR database and cover the same fiscal years. Major issues that are required to be resolved during the year of submission must be identified in the POM. The programs presented reflect an analysis of the missions to be achieved, the alternatives to accomplish them, and the required resources. In addition to the budget year, the program period is 4 years beyond the budget year for costs and manpower and 7 years beyond the budget year for forces. The POM represents the recommended changes to the current FYDP and specifies, by program element, the Navy’s force requirements, manpower costs, material recommendations, and the rationale for the proposed changes to the FYDP base. Backup documents are included with the POM for new procurements. As directed by the annual schedule disseminated by the DRB, the Navy initiates and submits its POM to SECDEF for approval. Generally, the Navy’s POM cycle commences 3 years prior to program execution and is successively reviewed and changed during the course of the budget cycle. The POM that was formulated in October of the current even FY covers the planned requirements from the FY thru FY +7 of the FY +2 POM. In October of the following year (odd year), FY +1, the PR cycle begins and it covers the same years as the prior year POM. Components of the Navy’s POM and the supporting documents for surface ordnance are initiated by the PEOs, DRPMs, and Logistics Commands and submitted to COMNAVSEASYS COM for review, consolidation, and forwarding through the review process. Figure 2-2-2 illustrates the multiple budget databases that are maintained during a calendar year.

2.2.3.4 Integrated Readiness Capability Assessment (IRCA). Ordnance logistics is within current readiness, one of the CNO’s Top Five Priorities to increase the operational availability of our forces. That requires OPNAV N411 to determine, accurately articulate, and validate Navy ordnance readiness requirements to optimize operational ordnance logistics support capabilities and to find the right balance between future and current ordnance readiness.

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a. Responsibilities:

(1) Naval Operational Logistics Support Center (NOLSC)-AMMO provide baseline inventory data to OPNAV N411.

(2) Naval Air Systems Command and Naval Sea Systems Command (NAVAIR/NAVSEA) Ordnance Program Managers provide procurement and maintenance funding data and inventory gain/loss data for each weapon/ordnance item under their cognizance to OPNAV N411.

(3) Commander, Fleet Forces Command (CFFC) will provide to OPNAV N411:

a. The Fleet Response Plan (FRP) ordnance requirements methodology for naval ordnance that will be used to determine required FRP inventory levels.

b. Funding requirements and supporting rationale for Fleet ordnance support.

(4) Naval Ordnance Safety and Security Activity (NOSSA) provides funding requirements and supporting rationale for Explosive Safety Programs.

2.2.3.5 Joint Program Assessment Memorandum (JPAM). The JPAM is submitted by the JCS to SECDEF to facilitate OSD decisions relative to the POM submittal. The JPAM provides a risk assessment based on the composite of the POM force recommendations. It also includes the views of the JCS as to the balance and capabilities of the overall POM force and support levels. In conjunction with the POM, the JPAM provides the basis for issue by the SECDBF of the Issue Books (IBs) and Program Decision Memoranda (PDMs).

2.2.3.6 Issue Books (IB). Based on review of the POM in relation to the JPAM and the DPG, OSD prepares IBs on matters having broad policy, program, or resource implications. These IBs address broad categories and constitute an evaluation of how well the POMs reflect the strategy, and the risks and shortcomings involved. The IBs are reviewed by the Services, the Office of Management and Budget (OMB), and finally, by the DRB. The major issues that are raised during the program review will be measured against the DPG, available budgetary resources, and the management initiatives. These reviews should produce a program that demonstrates a maximum degree of policy implementation consistent with national re-

source limitations. There are eight IBs with the following titles:

a. Book 1: Policy and Risk Assessment Book. Focuses attention on broad DoD-wide policy, strategy and resource allocation issues, and estimates the risk associated with the proposed programs submitted by the DoD components.

b. Book 2: Nuclear Force Book. Focuses on both strategic and theater nuclear force issues.

c. Book 3: Conventional Force Book. Focuses on general purpose force issues.

d. Book 4: Modernization and Investment Book. Focuses on all issues which are predominantly of a modernization and investment nature that are not appropriate to include in the nuclear and conventional force books.

e. Book 5: Readiness and Other Logistics Book. Focuses on readiness and logistics issues.

f. Book 6: Manpower Book. Focuses on manpower related issues.

g. Book 7: Intelligence Book. Focuses on defense elements of the National Foreign Intelligence Program, the Defense Reconnaissance Support Program, and other compartmented tactical intelligence and related activities.

h. Book 8: Management Initiatives Book. Reviews the application in the POMs of the principles enunciated in the acquisition management initiatives, and reviews and summarizes the economies and efficiencies in the submissions.

2.2.3.7 Program Decision Memoranda (PDM). DRB program review decisions are recorded in a set of PDMs signed by SECDEF and distributed to the services and OMB. The PDMs conclude the programming phase of the PPBS and represent the basis for the budget submissions.

2.2.4 Budgeting Phase. During the budgeting phase of PPBS, DoN prepares budget estimates and submits them to OSD for review. DoN starts with the first year of the POM FYDP, as modified by the PDM, as a baseline and reviews all aspects of the program in detail. The review is conducted through the Assistant Secretary of the Navy (ASN) Financial Management and Comptroller (FM&C) budget process. The PM is required to submit a program budget to the ASN FM&C through the chain of command in accordance with the current ASN FM&C guidance. This is done

to ensure that the program is both executable and properly priced. It also ensures reflection of congressional actions, late arriving policy guidance, or other data affecting program composition. The resulting budget estimates are forwarded to OSD/OBM as the DoN budget request supported by a large variety of summary and detailed budget exhibits. The estimates include the following budget documents:

a. Exhibit P-1. Procurement Program. A five year summary by budget project/activity will be prepared for each appropriation, showing the amount for each project/activity and total program for each appropriation. The detail of the consolidated line items in this entry should be available upon request. There should be no consolidation into a less than \$2 million line item for any line item requiring specific quantity authorization and for any Code B item.

b. Exhibit P-1R. Procurement Program Reserve Components. Provides two sub-line items for each line item listed on the P-1. One is for the National Guard and one is for the Reserve. The total for the Reserve components cannot exceed the amount of funding included in the P-1 line item.

c. Exhibit P-5. Cost Analysis. Provides detailed cost information in support of Exhibit P-1 line items. It is essential that this exhibit be complete and accurate as it is the most important exhibit in the backup book. The budget estimate submission will include P-5 exhibits containing information for all fiscal years from prior years through to complete years for all Acquisition Category 1 (ACAT 1) programs, and through Budget Year (BY) 2 for all other programs.

d. Exhibit P-5a. Procurement History and Planning. Provides detailed information on the P-5 entries regarding all prior years having contracts with undelivered assets, Current Year (CY), BY1 and BY2.

e. Exhibit P-20. Requirements Study. Provides detailed information with regard to the determination of asset availability and requirements. A P-20 will be prepared for all items being procured, even if the Item is included in a rolled, aggregated P-1 item, such as "items less than \$2 million".

f. Exhibit P-21. Production Schedule. Provides detailed information with regard to the monthly production of all applicable items.

g. Exhibit P-32. Procurement Purchases from Defense Business Operations Fund (DBOF). Estimates the amount of new orders planned to be sent to the DBOF business areas.

h. Exhibit P-40. Budget Item Justification. Provides overall narrative justification covering each P-1 item including all advance procurement and spare and repair part P-1 lines.

i. Exhibit P-40a. Budget Item Justification for Aggregated Items. Provides the quantities and funding covering the procurement programs included in rolled P-1 line items.

2.2.4.1 Budget Estimates. With the establishment of program levels in the POM, as modified by PDMs, the budgeting phase begins with the military services developing detailed estimates for the budget year of the approved program. Annually, the Navy submits its budget estimate to SECDEF in accordance with DoD 7000.14-R. The budget estimates include the prior, current, and budget fiscal years. The estimates are prepared and submitted based on the program approved in the PDMs. Modifications may be necessary to remain consistent with changes in national policy.

2.2.4.2 Budget Decisions. After initial review of the budget estimates submitted by the services to OSD, draft PBD's are distributed. The budget estimates and draft PBDs are reviewed jointly by OSD and OMB with participation and input by the services. This review is iterative and decisions are made which include the current year, budget year, and the authorization year (budget year plus one), including an estimate of the resource impact on the three succeeding program years. Budget estimate and change decisions are reflected in final SECDEF approved and published PBDs. PBDs that are approved by the Secretary or Deputy Secretary of Defense are translated into the automated budget review system to reflect changes in the submissions. Periodic summary status reports will be provided by the ASD(C) to the Secretary and Deputy Secretary, the OSD managers and staff, OMB, and the submitting DoD components. Status will be in terms of total obligational authority, budget authority, outlays, and military/civilian end-strengths. After review of the Budget Decisions, DoD components may identify issues that warrant a major issue meeting with the SECDEF. Later decisions made by the Secretary are announced in revisions to issued PBDs.

2.2.4.3 President's Budget. The end result of each PPBS cycle is the President's budget which is sent to Congress along with appropriate OSD justification exhibits for use during the Congressional authorization and appropriation processes.

2.2.5 Future Years Defense Plan (FYDP).

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2.2.5.1 General. The FYDP, DoD 7045.7-H, is the official document which summarizes for each of the services, the force and resource requirements associated with the programs approved by SECDEF in PDMs, program change decisions, and budget decisions. The FYDP is composed of 11 major defense programs. In its first dimension, it is used as a basis for internal DoD program review. In its second dimension, by the input-oriented appropriation structure, it is used by Congress in reviewing budget requests and enacting appropriations. Hence, it serves a purpose of cross-walking the internal review structure with the congressional review structure. This two-dimensional structure and attendant review methodology provides a comprehensive approach to accounting for, estimating, identifying, and allocating resources to individual or logical groups of organizational entities, major combat force or support programs referred to as program elements.

2.2.5.2 FYDP Defense Programs. To make meaningful decisions, provisions for accumulating and controlling information, for planning and programming, and in execution, categories called programs are used. The 11 programs used by the military services are as follows.

- a. Program I: Strategic Forces.*
- b. Program II: General Purpose Forces.*
- c. Program III: Command, Communications, Intelligence and Space.*
- d. Program IV: Mobility Forces.*
- e. Program V: Guard and Reserve Forces.*
- f. Program VI: Research and Development, Test and Evaluation.
- g. Program VII: Central Supply and Maintenance.
- h. Program VIII: Training, Medical, and Other General Personnel Activities.
- i. Program IX: Administration and Associated Activities.
- j. Program X: Support of Other Nations.
- k. Program XI: Special Operations Forces.

*Combat Forces Programs.

2.2.5.3 Program Elements. Each of the 11 FYDP programs are divided into program elements. All Navy departmental organizations, field activities, and operating forces are assigned to one or more program elements. The account structure of program elements within the FYDP programs is designed to display total costs in two formats:

- a. Organizational. Oriented for management use.
- b. Mission. Oriented for planning and programming use.

2.2.5.4 FYDP Publication. The FYDP is published three times a year (excluding the historical FYDP which is published following the POM update). It reflects the total resources programmed by DoD by fiscal year. Force structures are presented in the FYDP for the prior fiscal year, current fiscal year, budget year, and the seven succeeding years. Cost and manpower data are shown for the prior fiscal year, current fiscal year, budget year, and the four succeeding years. DoD 7045.7 provides specific guidance and procedures for processing changes or adding new programs to the FYDP.

2.2.5.5 New Approved Program Base. During the budget process, the receipt of PDM, PBD, or SECDEF memoranda reflecting the decisions of SECDEF constitutes a new approved program base when entered into the FYDP by the Navy.

2.2.6 Budget Execution. Budget execution is that phase of the budget process which encompasses all the actions required to accomplish effectively, efficiently, and economically the programs for which funds were requested and approved by competent authority. The budget execution phase overlaps the PPBS budgeting phase and continues throughout the period of availability of the appropriations for obligation or expenditure. Effective budget execution requires procedures for control and evaluation which will ensure compliance with regulations and limitations established by Congress, the General Accounting Office (GAO), the Treasury Department, OMB, and SECDEF, as well as by all echelons of responsibility and command within the DoN.

2.2.6.1 Appropriation Enactment. Provisions of the Congressional Budget and Impoundment Control Act of 1974 (P.L. 94-344) require Congress to pass the DoD Appropriations Act by 1 October of each year. In the event the Act has not been passed by this time, Congress provides funding authority through a Continuing Resolution Authority (CRA) making interim

appropriations available. The intent of the CRA is to provide funds to maintain operations at a rate necessary for the orderly continuation of activities until regular appropriations are enacted. The CRA language normally provides for the amounts Congress deems necessary to continue operations in support of projects or activities until appropriation bills can be enacted. Based on the CRA and the DoN request, the Treasury Department prepares temporary appropriation warrants which, after being counter-signed by the GAO, are forwarded to the DoN as certification that the specified amounts are available for commitment, obligation, and expenditure against the direct budget programs.

2.2.6.2 Apportionment. After Congressional enactment of the budget into authorization and appropriation acts, the services are responsible for accountability and execution. Obtaining appropriated funds is the initial step in the budget execution phase. Funds are annually apportioned to the services after review of resource requirements. Apportionment is defined in DoD 7000.14-R as "A distribution by the Office of Management and Budget of amounts available for obligation in appropriation or fund accounts of the Executive Branch. The distribution makes amounts available on the basis of specified time periods, programs, activities, projects, or combinations thereof. The apportionment system is intended to achieve an effective and orderly use of funds. The amounts so apportioned limit the obligations that may be incurred."

2.2.6.3 Allocation. An allocation is an authorization by a designated official of a DoD component, which makes funds available to an operating agency. DoN allocations are made by the ASN FM&C to the head of the responsible office for the appropriation or, if the Financial Manager is the responsible office, to the head of the administering office. A sub-allocation is a transfer or delegation to the head of another office, bureau, or command of some portion of the authorization granted to an allocation holder. When the administration of an appropriation is divided, the allocation holder sub-allocates the entire amount of a budget activity, or other subdivision of the appropriation to the head of another office, bureau, or command when that organization has been designated as administering office for the budget activity. The sub-allocation document states that all financial control of jurisdiction of and responsibility for, and amounts allocated are passed to the recipient. Generally, sub-allocation is made to an official who exercises overall administrative responsibility for the execution of the programs funded by the applicable subdivision. The sub-alloca-

tion holder issues allotments to the official who exercises immediate supervision of the specified portion of the program. Sub-allocations are used only in the instances of appropriations which are not administered under the Resource Management Systems (RMS) concept of operating budgets.

a. Purpose. Allocations establish responsibility for fund administration and ensure compliance with Congressional intent and OSD constraints in the use of funds for programs below the appropriation level. The amounts allocated, within the program/budget distributions applicable to each appropriation, provide dollar limitations for use in administration, accounting, and control. They are subject to reprogramming limitations established by OSD and the ASD FM.

b. Documentation. The document used to convey authority from the ASN FM&C to the head of the responsible office is the Program/Fund Allocation Form ASN FM&C 2058. These allocations establish availability based on the budget as submitted to Congress and modified by Congressional action on the budget request, by apportionment action of OMB and OSD, and by approved reprogramming actions. Prior to enactment of the annual Appropriations Act, the Form ASN FM&C 2058 establishes the level of programs authorized under the continuing resolution and provides interim funding for DoN general fund appropriations. Amounts are established within the authority of the restrictive limitations as stated on the ASN FM&C memorandum appropriations; RDT&E Program/Fund Authorization Form (SD 440); Procurement Program/Fund Approval for Direct Obligation Form (SD 487); and other schedules issued by OSD in the fund authorization process. Upon enactment of the appropriations, amounts established as limitations subject to 31 U.S. Code 1512 through the interim funding procedures are rescinded and replaced by the amounts newly authorized. Distribution of availability within an appropriation is made by budget activity, procurement line item, construction category, program element or other program category as appropriate.

c. Scope. The allocation includes both appropriated funds and anticipated reimbursements, other than those for work and service orders which are subject to automatic apportionment, and therefore, automatically increase the allocation. It specifies the amounts that are available for obligation and the amounts that are not available for obligation. The amounts not available for obligation are categorized by OMB, OSD, and the Office of ASN FM&C. Statutory or other limitations are indicated by footnotes. The amount of reimbursable work or service orders received

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and accepted is automatically allocated when apportionment is enacted and as a result is not part of the amount allocated on the ASN FM&C Form 2058. However, in the second and subsequent years of availability, the unobligated balance apportioned reflects the unobligated balance of reimbursable work and service orders from the prior year, and becomes a part of the allocated amount. While operating under the authority of a continuing resolution, a reserve is established in Section IA and II of the ASN FM&C Form 2058 to balance authorized program amounts with financial resources contained in temporary warrants. Obligations and commitments may be incurred by procurement line item or other appropriation subdivision in the program amounts indicated on the ASN FM&C Form 2058, provided that the appropriation level limitations are not exceeded.

d. **Preparation and Approval.** The ASN FM&C Forms 2058 and 2058-CT are prepared and approved by the Office of Budget and Reports, on behalf of the ASN FM. After approval, they are forwarded to the responsible office for the appropriation for implementation.

e. **Constraints.** Generally, the ASN FM&C Form 2058 establishes distributions for each program/budget category as applicable and indicates, by footnotes, the quarterly limitations at the overall appropriation level for quarterly apportionments. The recipient is responsible for distributing the quarterly limitations as appropriate below the appropriation level, ensuring that the cumulative total of quarterly limitations does not exceed the quarterly apportionment. The recipient is also responsible for establishing controls to ensure that any further subdivisions of allocated funds, as well as allotments, commitments, obligations, and expenditures, do not exceed the quarterly and annual limitations established by the ASN FM&C Form 2058. Subsidiary constraints are shown as footnotes to the ASN FM&C Form 2058 to reflect statutory and/or administrative requirements. Administration of these constraints is the allocation recipient's responsibility.

2.2.6.4 Allotment. An allotment is an authorization granted within and pursuant to an allocation or sub-allocation for the purpose of incurring commitments, obligations, and expenditures. An allotment may be made to a subordinate of a headquarters component by name or to the Commanding Officer of a shore activity by title. Allotments are used only for appropriations which are not administered under the RMS concept of operating budgets. Sub-allotments may be issued by an allotment holder to transfer responsibility for administration of some portion of the funds to another activity. In such cases, the sub-

allotment is in a fixed amount and carries the same responsibility for administrative control as a primary allotment.

a. **General.** Allotments convey the authority to incur commitments and obligations and to make expenditures from the allocation or sub-allocation holder to an official who is charged with a specific function or mission. The allotment, prepared on the Allotment/Sub-allotment Authorization ASN FM&C Form 372, provides the basis for establishment of the accounts against which obligation and expenditure documents are charged.

b. **Limitations.** Since an allotment is an administrative subdivision of funds, the total amount is limited by 31 U.S. Code 1512. However, in the case of allotments from appropriations for which OMB has granted automatic apportionment of anticipated reimbursements for work or service orders accepted, such orders provide an automatic increase to the allotment. Although an allottee is issued only one allotment from a given budget activity, the allotment may provide information as to further subdivisions at lower levels with stated degrees of flexibility as to adjustments between those subdivisions.

c. **Centrally Managed Allotments.** A centrally managed allotment is a specific amount made available by the holder of an allocation or sub-allocation for charges for specified purposes by designated officials, without specific limitations as to any individual official. Such allotments are established subject to the approval of the Comptroller when regular allotments are impractical. Charges to the centrally managed allotments must be limited to those for the specific functions for which the allotment is designated and must be restricted to transactions which fall within one budget activity. An allocation or sub-allocation holder may establish no more than one centrally managed allotment under a given budget activity. Adequate systems of control must be employed to prevent over obligation or over expenditure. If absolute controls are not available, there must be a system of frequent accounting and reporting that will provide sufficient notice of the need for increasing the allotment or for imposing restrictions.

2.2.6.5 Reprogramming. Reprogramming encompasses changes in the application of financial resources from the purposes originally contemplated and budgeted for. The term "reprogramming," however, has been extended to include actions at any level within DoD to reallocate or redistribute resources among program/budget categories. These reprogramming deci-

sions are subject to constraints involving thresholds which establish the level of approval according to the scope of the proposed change. Limitations were imposed on the authority granted to DoD for reprogramming funds, effective with the FY 74 DoD Appropriations Act. Two general provisions of the 1974 and subsequent Appropriations Acts have had an impact on the reprogramming of funds. The first states that "No part of the funds in this Act shall be available to prepare or present a request to the Committees on Appropriations for the reprogramming of funds, unless for higher priority items, based on unforeseen military requirements, than those for which originally appropriated and in no case where the item for which reprogramming is requested has been denied by the Congress." Under the general provision covering the transfer authority granted to SECDEF there is also a provision... "that such authority may not be used unless for higher priority items, based on unforeseen military requirements, than those for which originally appropriated and in no case where the items for which funds are requested has been denied by the Congress..." As an outgrowth of these provisions, DoD modified the formal system governing reprogramming of funds after consultation with the Congressional committees.

2.2.7 Standard Accounting and Reporting System (STARS).

2.2.7.1 General. STARS is used to classify and record financial transactions from the Chart of Accounts through the allocation, distribution, initiation, commitment, and obligation stages. The Commander, Naval Supply Systems Command (COMNAVSUPSYSCOM) has the responsibility for the overall maintenance of the STARS in accordance with the Memorandum of Understanding (MOU) of 1 May 1985. The management of STARS is accomplished by the STARS Steering Committee under the MOU guidelines. The Steering Committee is composed of all principal STARS user Commands.

2.2.7.2 STARS Users. Users are responsible for performing the following:

a. Classifying and recording financial transactions into STARS, including reimbursable transactions, from the Chart of Accounts through the allocation, distribution of funds, commitment, and obligation stages.

b. Controlling and monitoring all input data to the various dictionaries and Chart of Accounts.

c. Monitoring the correction of undistributed disbursements.

2.2.7.3 STARS Teleprocessing System. Certain management and accounting decisions require real time data entry and/or retrieval. The teleprocessing portion of STARS provides the capability to meet this demand. System users may perform queries, request special reports, and update planning data over remote terminals. Each transaction is subjected to security and validation checks. If valid, it is processed and a response is output on the user's terminal. If an error is detected during validation or processing, the transaction is immediately canceled and an appropriate error message is written. STARS teleprocessing programs are designed to enhance entry and retrieval of data from the STARS database. To best fulfill management needs, an on-line processing capability is supplied for reports (queries) and planning updates that appear to be most suitable for teleprocessing. These include low-volume, high-frequency reports and those planning updates which do not affect fund availability, but which aid the managers in financial decisions. Accounting documents which establish and reduce fund availability are entered by the user community, and procedures that address these updates are provided in the Fleet Material Support Office Document No. P-104, UM-02. STARS query programs provide real time retrieval of current information. This capability ensures the accuracy of reports and the ability for system users to make decisions with speed and confidence. In most cases, users are able to employ the entire range of queries to extract all types of data. The following are general descriptions of groups of queries to provide an overview of the information available:

a. Status of Funds Queries. The Status of Funds Query Program provides various methods of accessing the Major Claimant, Appropriation, Subhead Requiring/Financial Manager, Branch/Program Manager, Cognizant Manager, Participating Manager, Job Order, Project Directive Line Item (PDLI), Task, PDLI Suffix and Accounts Payable Code Levels of the STARS General Ledger Database. In addition, it allows access to the Document Status Database records related to a given PDLI, or Task and PDLI Suffix, or Accounts Payable Code. These queries provide managers with a rapid response to queries concerning the status of those funds for which they have been assigned responsibility.

b. Gross Obligation Planning Queries. These queries access a Special Planning Segment of the General Ledger Database and provide the user with a com-

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parison of planned versus actual gross obligations for a specific subhead.

c. Document Status Queries. These queries provide current status of a total document or of an individual line of accounting within a document. It can be accessed rapidly with various methods.

d. Transaction History Queries. These queries provide users with the capability of obtaining current month transaction change information subsequent to the last month-end report. Each amount that is output by the History Queries is identified by an Amount Type Code.

e. Reimbursable Queries. These queries give the manager the capability to monitor the entire reimbursable program from orders received to collection. The program provides various outputs summarized by Major Claimant, Appropriation, Subhead, Project Unit/Research/CAN/POM-SLI and Reimbursable Source Code.

f. Trial Balance Queries. These queries provide the users with cumulative general ledger balances for Major Claimant, Appropriation, and Subhead Levels.

g. Dictionary Table and Chart of Accounts Queries. These queries access the Dictionary Table and Chart of Accounts Database and provide the user with formatted responses from the particular database and segments requested.

h. Foreign Military Sales (FMS) Dictionary Queries. These queries access the FMS segments of the Dictionary Database and provide the user with case management information.

i. Trial Balance Queries. These queries access the right side of the General Ledger Database and provide the user with a trial balance of general ledger accounts at various levels.

j. Payroll/Cost Accounting Dictionary Database Queries. These queries access the STARS Payroll or Cost Accounting Dictionary databases to provide the user with formatted responses illustrating the contents of the selected database.

k. 2199 Transaction Queries. These queries display transactions from the Transaction Database by line item/input type of the entire operating budget.

l. Status of Funds for Budget Activity Queries. Status of Funds Queries access the General Ledger Database and provide the user with the current status of a specified Budget Activity.

m. Billing Queries. These queries access the Invoice/Billing Segments and the Billing/Collections Segments of the Table Database and are intended to aid managers in determining the status of those bills for which they are responsible.

n. Miscellaneous Queries. Queries in this subsection access the various STARS databases. However, they cannot be categorized in one of the subsections above, inasmuch as they are not consistent with the other programs available.

o. Special Request Reports. Various report programs permit the users to request hard copy reports via terminal during regular working hours. All requests are placed on the database and processed at night. The report will be distributed the following morning to the requester.

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Calendar Year (Odd Year)	Current FY	FY + 1 Budget Year	FY + 2 Budget Year + 1	FY + 3 Budget Year + 2
January	● Current Execution	● Prepare Tentative Technical Operating Budget ▲ Prepare President's Budget	■ issue paper continuance	
February	● Mid-Year Review Guidance ● Submit Mid-Year Review ● Current Execution	▲ Submit President's Budget ● Apportionment Review Guidance ● Submit Apportionment Review		
March	● N)AVSEA Mid-Year Review Questions ● Current Execution	▲ Congressional Hearings	■ PR Update Guidance Submit PR Update	
April	● Current Execution	▲ Congressional Hearings		■ POM Baseline Updates
May	● Current Execution		▶ NAVCOMPT Guidance	
June	● Current Execution		▶ Submit NAVCOMPT Budget	■ POM DBF Review
July	● Current Execution		▶ NAVCOMPT Hearings ▶ NAVCOMPT Mark-up ▶ Submit RECLAMA	
August	● Current Execution		◀ OSD/OMB Guidance	■ Initial POM Review
September	● Balance Spending Authorization / Plan ● Preparation for Funding Closeout ● Current Execution	▲ Congress Submit Approved Appropriation Bills to President for Signature	◀ Submit OSD/OMB Budget	■ OPNAV Program Review Guidance ■ Submit Program Review Briefs
October		● Execute Budget ● Current Execution	◀ Draft PBD/MID ◀ Submit RECLAMA ◀ OSD/OMB Hearing ◀ Final PBD/MID	■ POM Guidance ■ Submit POM ■ NAVSEA POM Review
November		● Current Execution		■ CNO Issue Paper Guidance ■ Submit Issue Papers
December		● Current Execution	▲ Congressional Guidance for Presidents Budget	■ POM Assessment Guidance ■ Submit POM Assessment
NOTES: ● = Execution ▶ = NAVCOMPT ◀ = OSD/OMB ▲ = Congressional ■ = POM / PR				

Figure 2-2-2. PPBES Calendar

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CHAPTER 2.3

Requirements Determination

2.3.1 General.

2.3.1.1 Characteristics and Principles. The Requirements Determination process is separate from the Planning, Programming, Budgeting and Execution System (PPBES) process, yet directly linked to the programming phase of the PPBES. To better understand the requirements determination process for non-nuclear ordnance, it is useful to bear in mind the following distinguishing characteristics and principles.

a. As the customer, the Chief of Naval Operations (CNO) and the Fleet define their respective needs in terms of the specific items, their quantities, the time frame they are needed, and their general distribution. As producers, the Program Executive Officer (PEO) and Program Manager (PM) respond by providing the required items in a timely manner and ensuring their suitability and reliability for meeting intended needs. In this relationship, “service to the customer” and “support of the Fleet” are synonymous. To carry the analogy a step further, a service warranty exists between producer and user, in that the former maintains continuing responsibility for reliability, configuration control, and maintenance.

b. Requirements for surface ordnance are calculated on a principal-item basis. Threat and Level-Of-Effort (LOE) war reserve material munitions requirements shall be computed to achieve targeting, kill, and post combat posture objectives approved in the Secretary of Defense (SECDEF) Defense Planning Guidance (DPG), as directed in DoDD 3110.6. This is in contrast to the requirements computation in other commodity areas where support levels are not directly prescribed. Other commodity requirements are computed by an Inventory Control Point (ICP) on a secondary item basis considering past demand, or the relationship of the support item to the end-item program data. In surface ordnance it is the user who specifies the requirement.

c. Programming, budgeting, and procurement requirements are calculated in terms of principal line items which are organized and summarized under control numbers (see Chapter 6.3), grouping interchangeable Department of Defense Identification Codes

(DoDICs) or Navy Ammunition Logistics Codes (NALCs). Secondary item requirements (related subassemblies, components, etc.) are aggregated and included in the requirement for the principal item to which they relate.

d. Unlike other commodity areas, stratification does not have a significant role in computing individual item requirements for surface ordnance. Its primary use is to compare assets to requirements in order to isolate candidates for disposal. The stratification process is described in Chapter 6.7 of this volume.

2.3.2 Non-Nuclear Ordnance Requirements (NNOR) Process.

2.3.2.1 Development. The Navy’s NNOR process implements the DoD Munitions Requirements Process (DoD MRP) described in DoDI 3000.4. The NNOR is developed in accordance with OPNAVINST 8011.9A. The DoD MRP is initiated when Defense Intelligence Agency (DIA) publishes the Threat Reports (TRs) for the operations specified in the current Defense Planning Guidance (DPG) and Contingency Planning Guidance (CPG). The Navy’s Non-Nuclear Ordnance Requirements Study (NNORS) is developed by CNO, and coordinated with the operational plans of the respective Commander’s, PACFLT/LANTFLT and with the ordnance PEOs and DRPMs. The NNOR, when approved and issued by CNO, is the Navy’s basic planning guidance for developing the Program Objective Memorandum (POM) and for programming the planned support requirements. The NNOR displays by geographic area the forces, planning factors, and requirements for selected items.

2.3.2.2 Alterations. Requirements determination is a dynamic on-going process, complicated by the incidence of changes inherent in the PPBS. Consequently, the Navy must frequently recalculate and adjust its program requirements. These alterations involve changes in forces, factors, asset and procurement status, guidance, etc., or are incurred by the introduction of special projects. This state of flux begins with the generation of the POM and continues through the apportionment review, 15 to 18 months in the future.

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2.3.2.3 DoD Munitions Requirement Process (MRP). Per DoDI 3000.4 of October 23, 2003, the Secretary of the Navy will:

a. collaborate with other Military Department Secretaries to develop standard target templates. Provide the target templates to DIA prior to the release of the CPG.

b. Review the TRs for completeness and accuracy of the near- and out-year threat data, including both quantitative and qualitative capabilities for each theater, and provide comments to the DIA..

c. Review the Combatant Commanders' near-year Phased Threat Distribution (PTDs) to ensure that they are aligned with the Operations Plan (OPLAN) concept (e.g. whether PTD percentages match operations concept).

d. Review the Chairman of the Joint Chiefs of Staff's out-year PTDs to ensure that the out-year PTD is aligned with Navy modernization requirements.

e. Work directly with OPNAV and the Combatant Commands to develop near- and out-year munitions requirements according to current DPG, CPG and the PTDs.

f. Provide near-year munitions requirements data according to prescribed formats, and a detailed description of the methodology used to compute those requirements, to the Chairman of the Joint Chiefs of Staff, the Combatant Commanders, and OPNAV by March 15, annually. Total munitions inventory shall be included.

g. Provide out-year munitions requirements data according to prescribed formats and a detailed description of the methodology used to compute those requirements to the USD (AT&L), and D, PA&E, by March 15, annually. Total munitions inventory shall be included.

h. Use out-year munitions requirements as input to Navy POM munition investments.

i. Conduct a two-phase assessment of risk to overall warfighting success due to any differences between computed requirements and both current and programmed munition inventories. Use the risk assessment measures of effectiveness.

j. Provide munitions inventory projections to the Chairman of the Joint Chiefs of Staff and USD (AT&L) 30 days after the POM is submitted.

2.3.2.4 Objectives. The objectives of the NNOR process are to determine ordnance requirements for combat and noncombat expenditures, and to provide for the allocation and positioning of assets in accordance with Fleet plans. The objectives include the following concepts:

a. The DPG directs implementation of this process.

b. The NNOR process allows Navy planners to base munitions requirements on the following concepts:

(1) A given force structure, armed to its designed military capability.

(2) The estimated quantity of munitions to defeat a specified threat with that force structure.

(3) The program and planning objectives, for threat ordnance combat requirements, are the war reserve requirements.

(4) The program and planning objectives, for Level Of Effort (LOE) ordnance combat requirements, are the war reserve requirements. LOE ordnance computations sustain a specific number of Days Of Combat (DOC) as defined in Defense Planning Guidance. LOE ordnance computations take into consideration shipping losses.

c. These concepts are consistent with the national military strategy of flexible and selective engagement to protect U. S. interest through out the world and to help meet the security needs of the U.S. partners in key regions. This strategy requires a ready U.S. military force capable of responding quickly and decisively to protect U.S. security. The NNOR process addresses the following key issues.

(1) Involves the Combatant Commander's early in the process and ensures operational flexibility in their theater.

(2) Establishes a common estimate of outyear enemy capabilities.

(3) Offers a common architecture to describe munitions requirements.

(4) Recognizes Navy-unique perspectives.

(5) Facilitates readiness and sustainability of a decisive naval force.

(6) Ensures coordination between Combatant Commander's and POE/PM different perspective on requirements.

2.3.2.5 Non-Nuclear Ordnance Requirements (NNOR) Process.

a. Combat requirements for those weapons included in the NNOR process are computed annually, based upon inputs from the Navy and Marine Corps Headquarters and field staffs.

b. Non-combat requirements are computed by the Non-Combat Expenditure Requirements (NCER) process.

c. The OPNAVINST 8011.9A applies to the computation of combat (i.e. war reserve) requirements for selected Threat and Level-of-Effort (LOE) non-nuclear ordnance under the purview of the NNOR process. Only Department of the Navy Threat and LOE ordnance, which the Non-Nuclear Ordnance Planning (NNOP) Board has agreed to include in the NNOR process, are within the scope of this instruction. The membership of the NNOP is detailed in the instruction.

(1) Threat ordnance is used against a finite enemy target base or enemy targets not easily reconstituted. The combat requirement (program and planning objectives) is based on the percentage of targets that must be destroyed.

(2) LOE ordnance is composed of air-delivered ordnance used against unlimited enemy targets such as personnel, bridges, factories and tanks. LOE ordnance is also composed of ship gun ammunition, countermeasures devices and sonobuoys which are used according to a specified expenditure rate. LOE ordnance currently includes 5-inch ship gun ammunition. The combat requirement is based on either the physical ability to deliver the weapons (number of aircraft sorties) or an expenditure rate (rounds per day).

(3) The NNOR process does not currently compute a combat requirement for small arms ammunition currently excluded from the NNOR ordnance list together with ship gun ammunition under 5-inches. OPNAVINST 3591.1C governs how small arms re-

quirements for training and qualification are developed.

d. Combat Requirements. The determinations of quantities of Threat and LOE ordnance is based on the combat requirements, which is defined as the war reserve inventory necessary to achieve the objectives established by Defense Planning Guidance.

e. Annual NNOR update. The purpose of the NNOR process is to establish combat requirements of designated ordnance for use in the POM development. This is accomplished through a family of computer models utilizing and approved database. The key milestones are amplified below:

(1) Database update. The annual NNOR process is initiated with the issuance, for update, of the approved database. Participants submit revised data, for their area of responsibility, under flag, Division Director, or Commanding Officer signature.

(2) Issue submission. During the call for the database update, any participant may submit issues relating to any aspect of the update. Issues should reflect an adequate discussion of concerns, together with suggested alternatives and impacts and, whenever possible, a specific recommendation to correct the problem or deficiency identified in the issue paper.

(3) NNOR Working Group. The NNOR working group reviews the database update and all proposed issues and formulates a staff program proposal for presentation to the NNOP Board Review Group. All significant issues in the database update cycle are presented to the NNOP Board Review Group.

(4) Database validation and approval. Changes proposed to the database must be consistent with programmatic data and related warfighting data. The NNOP Board Review Group may validate and approve all changes and revise combat requirements proposed during the update cycle. Issues that cannot be resolved by the NNOP Board Review Group will be forwarded to the NNOP board for final determination. If data is not changed during the update cycle the current data will be used for model computations.

(5) Model computations and evaluation. After the database is revised, requirements are computed and compared with both the predicted results and previous computation.

(6) Output approval. Revised requirements, computed from the updated database, are subject to the

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approval of the NNOR Board Review Group. The NNOR Board Review Group may validate and approve NNOP output data. Those issues which the NNOP Board for final determination.

(7) Unusual circumstances. Under very unusual conditions the NNOP Board may override model computations.

(8) Requirements documentation. The approved requirements will be promulgated for use in the Department of the Navy budget cycle development.

f. Addition/Deletion of Ordnance:

(1) The NNOR process encompasses a variety of ordnance. Theoretically any item of non-nuclear ordnance can be introduced into the NNOR process. Historically ordnance has been included to focus attention on high unit cost, to ensure maximum readiness and sustainability of its in-service life and due to Department of the Navy, Office of the Secretary of Defense, or Congressional interest. Other critical warfighting factors, are considered by the NNOP Board when an issue to add a weapon to the process is deliberated. Proposals to introduce in-service weapons to the NNOR process should be forwarded (as issues) during the database update cycle.

(2) New ordnance may be proposed for inclusion in the NNOR process when it has an approved Operational Requirement (OR) and an Initial Operating Capability (IOC) within the Six-Year Defense Program (SYDP). The addition of a new weapon is initiated by the appropriate resource sponsor during the data update phase. In addition to the above criteria, new ordnance proposals must contain information on platforms, ship-fills, effectiveness and utilization. The NNOR will compute a combat requirement for a new weapon only when the NNOP Board (or the NNOP Board Review Group acting within its charter) approves the new weapon for inclusion in the process.

(3) The list of weapons for which the NNOR process computes a combat requirement will be reviewed and validated annually. A weapon is normally deleted from the NNOR process when it is superseded by a more current weapon. However, an issue to delete a weapon may be initiated at any time during the data update cycle.

2.3.3 Requirements Determination Responsibilities.

2.3.3.1 Requirements development for Navy surface ordnance requires interaction and coordination across the echelons of CNO, Commander, Fleet Forces Command (CFFC), other major claimants, and COMNAVSEASYS COM. A general summation of the responsibilities specified in OPNAVINST 8010.12F follows.

2.3.3.2 CNO.

a. Provides ordnance logistics guidance and policy to CFFC in support of the respective Unified Commander's during the deliberated planning process (N4).

b. Coordinate with CFFC and other major claimants to obtain accurate inputs to the NNOR and ensure Training, Testing, and Current Operational Requirements (TTCOR) are submitted.

c. Pass TTCOR inputs to Naval Operational Logistics Support Center (NOLSC-AMMO) and resource sponsors for development of the CNO approved Non-Combat Expenditure Allocation (NCEA).

d. Annually approve and promulgates NCEA to the CFFC and other major claimants for further distribution to the Naval Forces (N411).

e. In the event of crisis, stand-up the Crisis Response Center and publish the Letter Of Instruction (LOI).

2.3.3.3 CFFC and MARFORs.

a. Participate in annual Global Naval Ordnance Positioning Plan (GNOPP) update conferences to:

(1) Coordinate within the GNOPP charter and with NOLSC-AMMO to develop positioning actions to meet OPLAN requirements, minimize risks associated with ordnance shortfalls, and facilitate Time Phased Force and Deployment Data (TPFDD) execution.

(2) Develop, or revise as necessary, business rules for the GNOPP based on precise planning factors including: shipfill, OPLAN, and training requirements; storage activities and capacity; and resupply lead times.

(3) Resolve deliberate planning, crisis action planning, positioning plan development, load planning

and ordnance positioning strategy issues. If unable to do so, address problem areas to CNO/CMC for resolution.

b. Obtain validated OPLAN ordnance requirements from the respective service components. Coordinate with service components and NOLSC-AMMO regarding ammunition sourcing, identification of shortfalls, and completion of the TPFDD during the deliberate planning process.

c. Conduct periodic assessments of Unified Commanders, CFFC requirements support of Major Theater War (MTW), Small Scale Conflict (SSC) and Military Operations Other Than War (MOOTW).

d. Submit to the Commanding Officer, NOLSC-AMMO:

(1) Space Utilization and Storage of Explosive/Inert Ammunition Report and Magazine Hazard Class Capacity Report to support new production and rework allocations (including NCEA stocks).

(2) Propose changes to 30,000 series allowance list for shipfill, mission loads, and cargo loads based upon CNO approved combat requirements, with a copy to CNO (N815).

(3) Inputs (revisions to business rules/planning factors) for the GNOPP in support of Unified Commander and CFFC OPLANS/CONPLANS and other contingency requirements. Submit copies to NOLSC-AMMO via CNO (N411).

e. Develop tailored allowance lists from which afloat activities will submit requisitions to meet Unified Commander's and CFFC requirements.

f. Submit training requirement component of the TTCOR to CNO (N70M10) by 1 October each year for development of the NCEA.

g. Manage load plans for all storage activities in respective Area Of Responsibility (AOR) and coordinate replenishment/redistribution required to correct load plan deficiencies (shortages/excess) with NOLSC-AMMO.

h. Coordinate with NOLSC-AMMO when attempting to satisfy U.S. Marine Corps naval ammunition shortfalls that cannot be filled from assets held at primary or secondary naval stock-point within the AOR.

2.3.3.4 Commander, NOLSC-AMMO.

a. Develop, update and manage the GNOPP model utilizing inputs from CFFC. Identify ordnance requiring positioning and publish a 2-year positioning plan. The plan will be updated annually when changes are identified via positioning conferences and the GNOPP Memorandum Of Agreement (MOA).

b. Compute and publish load plans for all naval ammunition storage activities.

c. Publish and issue shipfill, mission and cargo allowance lists.

d. Schedule and coordinate annual GNOPP update conferences.

e. Coordinate and assist CFFC and Major Claimants in developing 30,000 series allowance lists.

f. Coordinate development of ordnance distribution plans, based on GNOPP positioning/load plans, with CFFC. Identify ordnance positioned in support of GNOPP by specific mission and priority.

g. Develop metrics to measure ordnance distribution compliance relative to the GNOPP allocation and magazine utilization. Incorporate metrics into the NOLSC-AMMO Ordnance Assessment Profile (OAP).

h. Incorporate ordnance inventory readiness metrics into the NOLSC-AMMO OAP based on standardized readiness definitions and assumptions provided by CFFC and coordinated/reviewed by the Naval Ordnance Readiness Improvement Program (NORIP).

i. Assist CFFC in the management of load plans by coordinating the ordnance replenishment and redistribution.

j. Act as Department of the Navy single point of contact for coordination with the Joint Munitions Transportation Coordinating Agency (JMTCA) for the Single manager of Conventional Ammunition (SMCA) and non-SMCA common-user ammunition movement requirements other than Class V (W) (USMC) ground ammunition. Provide data required to complete deliberate planning, crisis actions planning used to facilitate United States Transportation Command (USTRANSCOM) feasibility analyses

k. Coordinate sourcing for SMCA held assets.

l. Advise CNO (N411) of changes or impending changes in ashore ordnance storage capabilities.

m. Provide new production and rework schedules and allocation summaries to CFFC. Provide a copy to CNO (N411).

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n. Ensure ordnance automated management systems are kept current with industry technology standards and are able to accommodate changes in a timely manner.

o. When directed, stand up a Crisis Response Center to enable timely sourcing, distribution and accurate expenditure reporting of naval ordnance.

2.3.3.5 Commandant of the Marine Corps.

a. Provide ordnance and policy to MARFORs in support of the respective Unified Commanders and CFFC during the deliberate planning process.

b. Coordinates with MARFORs to obtain accurate input to NNOR and ensure TTCOR are submitted.

c. Pass TTCOR inputs to NOLSC for development of the CMC-approved NCEA.

d. Annually approve and promulgate NCEA to the MARFORs.

e. Resolve U.S. Marine Corps material shortfalls identified during the deliberate planning process.

2.3.4 Program Development.

2.3.4.1 Procurement and Maintenance Requirements. The PEOs and PMs translate the Total Munitions Requirements into specific principal item procurement and maintenance requirements for the POM presentation and budget submittal. The programming of these requirements considers many variables. These include asset inventories, expenditures, due-ins, allowances, ship offloads, SMCA and Navy maintenance capabilities, production data, pricing data, numbers and types of missile launchers/gun barrels not listed in the NNOR, research and development requirements, etc. These variables are analyzed, interpreted, and used to develop a procurement plan. The presentation is formally structured by the PMs to produce documents such as the Material Planning Studies (MPS), Budget Exhibits, and Munitions Procurements and Inventories Studies (MP&IS). Collectively, these documents enable analysis and assessment of current and projected levels of the total munitions requirements asset readiness, help identify assets and deficiencies, provide detailed backup documentation for POM and budget submittals, and present information useful to management and higher level planning and funding authorities. Program execution is constrained by factors such as asset availability, production shortfalls, changes in force levels and priorities, and resource and fiscal limitations. The DPG and supporting NNOR define the total

threat, allocate the Navy's share of targets, and compute the level of ordnance required to eliminate these threats. The PEO's and PM's role is to interpret and translate this guidance into specific requirements, develop the POM, formulate the budget, and monitor the allocation of material resources.

2.3.4.2 Material Planning Studies (MPS). An MPS identified to each principal item is initiated annually with the approved POM and is revised with each subsequent budget cycle (NAVCOMPT, OSD, and President's). The MPS, required by NAVSUP-P-485, provides budget and program backup data, specifies inventory objectives, serves as a basis for detailed procurement and production analysis and planning, provides a means of exchanging requirements and production information within the Navy, and generally prints a detailed overview of an item's readiness posture. The MPS covers the prior budget year, the current budget year, and five succeeding fiscal years (a time span that corresponds to the mid-range time period covered by the programming system). The MPS tabulates and summarizes the following:

- a. Item identification using DoDIC and nomenclature.
- b. Logistics factors such as unit of issue, unit cost, procurement objective by budget year.
- c. Procurement lead time.
- d. Programming objective for the item by budget year through lead time.
- e. Gains and losses.
- f. Item production costs for each budget year.
- g. Current and forecasted material status by fiscal year.
- h. Programming objectives by fiscal year.
- i. Actual assets of the item on-hand and asset location including in-transit, serviceable, and repairable.
- j. Material status in terms of budget and funding periods.
- k. Stock experience (usage) for past two years - an inventory summary taking into consideration gains and losses by reason.
- l. Item retention level.

2.3.4.3 Inventory status of stocks and inventory gains and losses are incorporated into the MPS from

monthly Worldwide Asset and Expenditure Reports compiled by NOLSC-AMMO. Information and status concerning deliveries and forecasted receipts from contractors is obtained by the PEOs and PMs from the Production Delivery Schedules received from the Producers, or from the SMCA for a SMCA procurement.

2.3.4.4 Budget Exhibit. The Exhibit P-20 (Requirement Study) is prepared in connection with each budget submission to show the program procurement quantities for the fiscal year. Each exhibit is organized for selected DoDICs and displays the following:

- a. Assets on hand.
- b. Assets due-in from previous fiscal year funds.
- c. Projected usage based on NCEA allocation reports and letters.
- d. Acquisition objective.
- e. Budget fiscal year procurement quantities.

f. Programming objective by element (Shipfill, combat consumption, pipelines, etc.).

g. Historical usage reports.

h. Procurement lead time.

The budget exhibit computations also provide input to portions of the MPS and the MP&IS.

2.3.4.5 Munitions Procurement and Inventories Study. The MP&IS is developed to outline the planning and programming objective and extend the coverage contained in the budget exhibit through the POM period (e.g., for POM 04, this would encompass fiscal years 2005-2011). The MP&IS procurement projections display alternative buy programs as well as the current approved FYDP procurement. These alternatives do not represent constraints based on dollars or priorities, but reflect what is required to reach stated objectives within a given time frame. In addition to its primary use to assist the Resource Sponsors in development of the Sponsor's Proposed Program (SPP) and Assessment Sponsors in program assessment, the MP&IS provides major input to the procurement shopping list portion of the POM.

CHAPTER 2.4**Industrial Preparedness Planning (IPP)****Table of Contents**

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CHAPTER 2.4

Industrial Preparedness Planning (IPP)

2.4.1 Responsibilities. Per DoDI 5160.68 of December 22, 2003:

a. The Single Manager Conventional Ammunition (SMCA):

(1) Is responsible to take the lead in development and publication of an overarching conventional ammunition industrial base strategic plan that supports the Military Services conventional ammunition requirements.

(2) Will manage and invest in a production base that supports SMCA assigned conventional ammunition and components to:

(a) Ensure an adequate production base to meet the Military Services conventional requirements.

(b) Identify and incorporate new and more efficient production technologies.

(c) Conduct industrial preparedness planning and biennially report production base information and results to the Military Services.

(d) Coordinate with the Military Services on the status of the production base as significant changes are planned or occur.

(e) Maintain an industry advisory panel in accordance with the Federal Advisory Committee Act, consisting of conventional ammunition producers and the Military Services.

(f) Serve as a technical advisor to the Joint Material Priorities and Allocation Board on matters related to assigned conventional ammunition.

b. The Military Services will:

(1) Retain responsibility for determination of Future Years Defense Plan (FYDP) conventional ammunition requirements, and ensure such requirements are conveyed to the SMCA. The requirements should include, non-SMCA-managed items using the same industrial capabilities as SMCA items.

(2) Provide necessary industrial preparedness planning information to the SMCA relative to facilities retained by the Military Services for ensuring that the SMCA has adequate data upon seeking the best balance and assisting in the conduct of industrial preparedness planning and developing an overarching industrial base strategic plan.

(3) Use facilities within the SMCA production base when they meet the Military Services requirements.

(4) Provide support in development of the overarching conventional ammunition industrial base strategic plan.

2.4.2 Purpose and Scope. Chapter 3 of DOD5160.65M of 1 April 1989 contains joint policies and procedures for the SMCA IPP program in detail. The purpose of the joint policies and procedures is to provide the principles of IPP and the aggregation of replenishment requirements for ammunition. Industrial preparedness planning and aggregation of the replenishment production needs of all DoD Components for ammunition assigned to the SMCA shall be integrated with the overall acquisition strategy of ammunition programs. The Secretary of Defense (SECDEF) outlines the goals and objectives of the industrial preparedness program through material support planning guidance and other related DoD policy guidance. From the Navy surface ammunition perspective, IPP is a product of the requirements determination process which is provided to the SMCA, not part of the requirements determination process itself. Since the majority of surface ammunition items are acquired by the SMCA, only the SMCA IPP process will be discussed.

2.4.3 Industrial Preparedness Planning (IPP) Concepts.

a. The SMCA IPP planners need enough information from the Services to accomplish meaningful planning of the industrial base to support replenishment. To fill this need, the Services shall provide valid near-year information and realistic out-year projections to the SMCA. This information will be used

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to determine the production capacity required to establish and maintain the production base, or dispose of capacity no longer required.

b. Industrial preparedness planning shall be limited to military end items or components essential to operational effectiveness under combat or combat training conditions, or for the safety and survival of personnel; and meet at least one of the following criteria:

(1) Requires a long lead-time.

(2) Requires development of, or additional, capacity to meet replenishment production needs.

(3) Require continuous surveillance to ensure preservation of an adequate base to support replenishment production needs.

(4) Required critical skills and/or specialized, unique and/or critical production equipment or facilities.

c. Items shall not be selected for planning if they:

(1) Are solely for comfort, convenience, or morale.

(2) Will become obsolete within 12 months.

(3) Can normally be acquired from commercial sources in enough quantities in sufficient time for Major Regional Conflict (MRC) replenishment requirements.

d. The following assumptions will be used for planning the industrial base to support replenishment:

(1) Replenishment will be done in peacetime conditions. Replenishment will be in addition to the ongoing FYDP production. Environmental and safety restraints will be in effect.

(2) The existing provisions of the Defense Production Act (SOAppUSC Section 2077) will be strictly enforced and used to direct increased output of current production and to resolve/alleviate material conflicts between civilian and military and production through use of the Defense Priorities and Allocation System (DPAS) Regulation.

(3) Distribution from the strategic stockpile will be available based upon sufficient justification and DoD and federal priorities.

(4) Production equipment, identified and available in the unassigned DoD industrial reserve, will be provided to the requiring activity for installation based on priority of need.

(5) The U.S. industrial base is undamaged.

(6) Foreign producers (other than Canadian) will not be considered as a source of supply.

(7) Usable Foreign Military Sales (FMS) items under U.S. control will be diverted to U.S. Forces.

e. If the SMCA determines that an item does not require formal detail planning due to asset posture, insignificant quantities or commercial availability, the requiring Service will be advised prior to finalization of planning.

f. The Services and the SMCA shall plan for transition of items according to Chapter 2 of DoD 5160.65-M.

g. Special actions may be needed to qualify or preserve the industrial base for items from foreign sources. In cases where dependency on foreign sources exist, the SMCA and the Services shall take alternative industrial preparedness measures as appropriate, including the qualifying of standby domestic production capability.

h. The true production capability of planned producers must be ascertained by the SMCA. To do so, SMCA review teams will make periodic on-site reviews of selected industrial base activities.

(1) A schedule of visits to planned producers shall be prepared and provided annually by the industrial preparedness activities of the SMCA. Changes and results from the survey are then used to update the SMCA Production Base Plan (PBP) database and subsequently support the Armament Systems Automated Production Plan (ASAPP).

(2) The SMCA review team coordinates the on-site review with the Industrial Analysis Support (IAS) Manager. The IAS Manager is the DoD designee within the Defense Logistics Agency (DLA), responsible for performing IPP in plants under his or her cognizance. The Industrial Operations Command (IOC)

Deputy Chief of Staff (DCS) for Industrial Readiness serves as the IAS manager for the organic ammunition production base. This includes the Government-Owned, Contractor-Operated (GOCO) and Government-Owned, Government-Operated (GOGO) plants.

(3) The IAS Manager becomes a member of the team and, as such, should advise the team leader of any shortfalls experienced by the contractors prior to the inspections of their plants.

(4) After review and evaluation, the SMCA review team shall determine the reliability of the overall planned producers production capability.

(5) In case of capacity differences or shortages to meet total Service requirements, the findings shall be reviewed by the SMCA IPP Activity for resolution and corrective action.

(6) The SMCA shall provide the highest caliber of industrial expertise consisting of design, production, and scheduling experience.

2.4.4 Single Manager Conventional Ammunition (SMCA) Responsibilities. The SMCA shall perform the following functions:

a. Aggregate DoD component replenishment requirements as described in Chapter 3 of DoD 5160.65-M.

b. Establish and maintain production capability under current DoD instructions to supplement private capacity enough to support demand rates. Justify exceptions on a case-by-case basis.

c. Fund for base retention costs, including lay-away and maintenance. Relate these costs to the levels of readiness needed for replenishment.

d. Ensure that all SMCA replenishment requirements are planned against the production base. Before making major changes in requirements or production base capability, promptly notify the concerned Service(s).

e. Ensure full munitions support for the Military Services and selected allied forces to support replenishment by:

(1) Establishing and maintaining a conventional ammunition production base that meets assigned peacetime and replenishment needs.

(2) Establishing and maintaining enough storage and handling capability to meet assigned replenishment requirements.

f. Improve planning with contractors, including separate funding and planning to the second and third tiers when necessary. Develop industrial preparedness plans for replenishment by one of several methods:

(1) Using the DD 2575, "DoD Industrial Preparedness Program Production Planning Schedule," (or approved replacement form) under which the contractor takes part voluntarily.

(2) Using contract clauses or similar methods. These methods may be used when funding is available.

g. Retain conventional ammunition capacity in the highest possible state of readiness commensurate with DoD policy and the economic tradeoff between maintenance and item inventory.

h. When appropriate, recommend that peacetime contracts be negotiated with planned producers for acquisition of planned items under Federal Acquisition Regulation (FAR) Section 6.302-3 to encourage more active and effective industry participation in IPP.

i. Provide data back to the Military Services concerning the status of IPP for SMCA items by means of the SMCA Production Base Plan (PBP) and other reports. Such data and reports shall be based on an all-up-round analysis.

2.4.5 Section 806.

a. Section 806 of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 states that the official designated as the SMCA in the Department of Defense shall limit a specific procurement of ammunition to sources within the national technology and industrial base in accordance with Section 2304(c)(3) of Title 10, United States Code (U.S.C), if that manager determines that such limitation is necessary to maintain a facility, producer, manufacturer, or other supplier available for furnishing an essential item of ammunition or ammunition component in cases of national emergency or to achieve industrial mobilization. Section 806 specifies that the term conventional ammunition has the meaning given that term in DoDD 5160.65, dated 14 April 2004.

(1) The SMCA, U.S. Army, Program Executive Officer for Ammunition (PEO-AMMO), is responsible for annually publishing the "Conventional Ammunition End Item/Component at Risk List." This list will identify ammunition or components that potentially qualify for restricted competition. DoD 5000.60-H of 1 April 1996, Assessing Defense Industrial Capabilities, provides guidance in preparing the list.

(2) The SMCA (PEO-AMMO) will receive all acquisition plans and strategies that include "Conventional Ammunition" prior to approval. The purpose of the review is to determine if the planned approach to competition is consistent with retaining the national technology and industrial base capabilities required for national security, considering all risk factors.

(3) If the SMCA agrees with the competitive approach, that official signs the "Section 806 Determination."

(4) If the SMCA agrees with the competitive approach, the program manager and the DCS for Ammo will need to work together to resolve the differences.

b. The Defense Federal Acquisition Regulations Supplement (DFARS) SubPart 207.1, Acquisition Plans, contains guidance regarding acquisition plans and their review by the SMCA.

2.4.6 Program Executive Officer for Integrated Warfare Systems, Naval Gunnery Project Office (PEO-IWS3C) Conventional Ammunition Program Office Responsibilities. As the Navy's surface ammunitions representative in the IPP process, the PM will perform the following:

a. Provide replenishment requirements to the SMCA based on force structure, weapons systems, and common scenario latest planning guidance.

(1) Replenishment requirements. Focuses on replacing losses of the most demanding of two nearly simultaneous MRCs.

(2) Asset Posture. This information is requested to allow the SMCA to determine base retention and sizing requirements.

(3) Critical Items List (CIL). A CIL of replenishment items.

(4) Other Contingencies. Requirements for other contingencies as they become known.

b. Coordinate with the SMCA to ensure that adequate Ammunition Data Lists (ADLs)/Technical Data Packages (TDPs) are available for IPP.

c. Use Navy procedures for item selection and requirements determination.

d. Coordinate with SMCA IPP planners to ensure that production base planning is accomplished early in the life cycle of items still in Research and Development (R&D) and not yet transitioned.

e. Provide Service requirements for common components of threat-oriented and other non-SMCA items so that they can be reviewed jointly with other replenishment needs.

f. Is responsible for developing written acquisition plans and strategies for their commodities, to at least the ammunition family/caliber level. The acquisition plan must be submitted to the SMCA for a Section 806 review and approval, prior to issuance of a solicitation. This requirement is applicable for all new purchases of conventional ammunition including new procurements of conventional ammunition covered by previously approved acquisition plans.

2.4.7 Integrating Industrial Preparedness Planning (IPP) with Current Procurement. To ensure maximum coordination between the planning process and current procurement plan, integration must take place early in the procurement plans. Planners shall make optimum use of the Federal Acquisition Regulations (FARs) and DoD directives to keep the production base in a high state of readiness while meeting planning requirements and objectives. The Data Item Description (DID) is a contractual document that may be included in solicitations and contracts for selected systems and items designated for the IPP. The acquisition activity may conduct IPP by direct discussion with a selected prime contractor. The appropriate IAS Manager will be notified of the "direct planning" choice and be invited to participate. In certain instances, the acquisition activity may award a special study contract to a contractor to accomplish planning. IAS Managers will be kept informed of all special studies that may affect their function. Whichever of these planning alternatives is used by the acquisition activity, close coordination must be accomplished between the Industrial Preparedness Planner, the Procurement Planner, and the IAS Manager.

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CHAPTER 2.5

Non-Combat Expenditure Program

2.5.1 Non-Combat Expenditure Requirements.

2.5.1.1 General. Non-Combat expenditure is the term for all expenditures of ordnance other than for use in combat operations. Testing, Training and Current Operational Requirements (TTCOR) serves as the baseline for the development of Non-Combat Expenditure Allocation (NCEA). NCEA supports the following:

a. Training/Exercises afloat and ashore to maintain a proficiency level of readiness for combat.

b. Test expenditures including Research, Development, Test and Evaluation (RDT&E) for out of production ordnance items, ordnance evaluation and structural firings.

c. Current Operational Requirements (COR) is defined as the quantity of munitions encompassing peacetime operational requirements and supports the following:

(1) Natural Disasters.

(2) Riot Control.

(3) Saluting Rounds.

(4) Explosive Ordnance Disposal.

(5) Operations Other than War.

(6) Competitive Marksmanship Training and Competitions.

(7) Force Protection and Physical Security.

(8) Requirements for small scale contingencies are not to be COR.

2.5.1.2 Projection Source. Generally, requirements for a and b are predictable and can be projected for the upcoming fiscal year and nine outyears. For the other expenditures, prior year actual expenditure data should be analyzed to provide the basis for projecting outyear requirements.

2.5.1.3 TTCOR Major Claimants. Activity requirements are submitted via the chain of command by 1 October. Those requirements are consolidated by major claimants for submission to the Chief of Naval Operations (CNO) (due on 1 January annually for the upcoming fiscal year and two outyears). The major claimants are listed in the current NAVSUP P-724, along with their authorized sub-claimants.

2.5.2 Non-Combat Expenditure Allocation (NCEA).

2.5.2.1 Naval Operational Logistics Support Center (NOLSC-AMMO) develops a proposed NCEA based on an assessment of the TTCOR, the NNOR, past expenditures, current inventory posture, projected deliveries, maintain requirements and acquisition/program managers inputs. The proposed allocations are submitted to CNO (N7) resource sponsors for concurrence/revision.

a. NOLSC-AMMO consolidates and distributes the proposed NCEA to major claimants for review prior to the annual NCEA conference. The NCEA conference is the forum for major claimants and CNO (N7) resource sponsors to have the opportunity to discuss current issues, concerns and readiness impacts of the proposed allocations. Revisions to the proposed allocations can only be authorized by the CNO resource sponsors.

b. The annual NCEA forum results in finalization of the next year initial allocations which NOLSC-AMMO forwards, with the promulgation letter, to the NCEA policy sponsor CNO (N411) for approval.

c. Major claimants are notified by NOLSC-AMMO when the approved NCEA has been loaded into Ordnance Information System-Wholesale (OIS-W) for their subsequent sub-allocations by Naval message. The NCEA is effective 1 October annually.

2.5.2.2 Sub-Allocation. Upon receipt of their annual total NCEA, major claimants sub-allocate ordnance to their authorized subordinate commands and activities to meet their submitted requirements. Major claimants establish and maintain sub-allocations in OIS-W.

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OIS-W registration provides a means for verifying NCEA requisitions and monitoring over-expenditures versus allocations. Only major claimants and Type Commanders (TYCOMs) are authorized to make sub-allocations to their sub-claimants.

2.5.3 Testing, Training, and Current Operational Requirements (TTCOR)/Non-Combat Expenditure Allocation (NCEA) Processes.

2.5.3.1 NCEA Augment Procedures.

a. All augment requests originated from subordinate commands shall be submitted via the chain of command to the major claimant. Prior to submitting an augment request to the next higher headquarters in the chain of command, every effort should be made to reallocate assets from within at each command level. If reallocation is not possible, and the augment request reaches the major claimant, the major claimant shall first attempt to reallocate from within. If sufficient assets are not available, the major claimant should coordinate with other major claimants for possible reallocation. If this option is not feasible either, the major claimant may submit an augment request to NOLSC-AMMO.

b. When new requirements, or additional justification on original requirements, are identified, major claimants can submit augment/decrement request to NOLSC-AMMO. See NAVSUP P-724 for guidance in submitting.

c. NOLSC-AMMO assesses the inventory posture to determine asset availability for augment approval and obtains CNO (N7) resource sponsor concurrence. NOLSC-AMMO processes augments to the NCEA and updates OIS-W with changes.

d. Major claimants conduct an annual mid-year review by 15 May of year-to-date NCEA expenditures and anticipated expenditures for the balance of the fiscal year. This review will assess NCEA posture and form the basis for augment/excess turn-in requests.

2.5.3.2 Sub-allocation Process. Commands under TYCOM level, on a case-by-case basis, may obtain authorization for sub-allocation to their sub-claimants via the TYCOM and major claimants. Under major claimant approval, the duty appointed command must notify NOLSC-AMMO, for further instruction on becoming an authorized sub-allocator in OIS-W.

2.5.3.3 User Activity Processing. Once the user activities receive their allocation letter, they prepare their TTCOR submission in accordance with CNO NNOR, and training and readiness requirements listed in applicable instructions. The resulting TTCOR submissions are submitted back up the TTCOR chain of command, being consolidated at each level, reaching NOLSC-AMMO, by the 1 October deadline.

2.5.3.4 Requisition Submittals. Once each level down to the end user has entered their suballocation into OIS-W, the using activities can submit requisitions against their NCEA for the current FY. Any requisitions submitted prior to the allocation being registered in OIS-W will be back ordered.

2.5.4 Testing, Training, and Current Operational Requirements (TTCOR)/Non-Combat Expenditure Allocation (NCEA) Control.

2.5.4.1 CNO and Major Claimants. It is the responsibility of each major claimant to ensure that all subordinate commands and using activities are aware that non-combat requirement submissions must be timely and contain valid/credible requirements for the ordnance needed during the upcoming year and outyears. Expenditures of allocated quantities are closely monitored by CNO, PMs, and NOLSC-AMMO, not only as a check for over expenditure, but also for chronic overestimation of requirements. As each annual submission is prepared, previous outyear projected requirements should be adjusted to reflect real world environments for annual usage. Since unexpended annual allocations are not authorized for carry-over beyond 30 September, justification or rationale for major increases over prior year expenditures should be annotated on requirement submissions.

2.5.4.2 User Registration. End user registration in OIS-W provides a means for verifying NCEA requisitions and monitoring expenditures versus allocation data. To avoid delays in obtaining required ordnance and to enhance justification for future allocations it is essential that:

a. End user NCEA registration in OIS-W be accurate and timely.

b. Changes in allocations and reallocations be registered.

c. End user Unit Identification Codes (UICs) be specified as the second UIC in requisitions requiring For Further Transfer (FFT) via shore activity or Mobile Logistics Support Fleet (MLSF) ship, and in reporting on Ammunition Transaction Reports (ATRs).

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CHAPTER 3.1

Introduction

3.1.1 Scope. DoD 5000 directives describe the acquisition policy process and requirements. No attempt will be made to restate those program or acquisition requirements up to Milestone C in this document. Some references will be made to Research, Development, Test & Evaluation (RDT&E) to describe relationships, but the emphasis and of this Volume is to define life cycle management of an ammunition item after successful passage through acquisition Milestone C.

3.1.2 Perspective. The primary focus of acquisition management is to manage the acquisition of those ammunition items identified in the Congressionally approved program within the funded delivery period. Many acquisition issues are being addressed concurrently with program issues which have significant impact on each other. For surface ammunition, the personnel addressing the acquisition issues within the Program Office are the same personnel addressing the related program issues.

3.1.3 Organizational Relationships. The organizations involved in acquisition management are predominantly spread throughout the NAVSEA, SMCA, and contractor organizational structures. Figure 3-1-1 identifies the organizations involved in the acquisition processes and their relationships to each other. The following Sections in this Chapter will describe the acquisition processes and identify the organizational responsibilities for those processes.

3.1.4 Secretary of the Navy Support. The Navy's Acquisition Executive, Assistant Secretary of the Navy (Research, Development and Acquisition) (ASN-RDA) has provided SECNAV Instruction 5000.2C of November 19, 2004, Subj: Implementation and Operation of the Defense Acquisition System and the Joint Capabilities, to issue mandatory procedures for DoN implementation of Department of Defense acquisition guidance and Chairman of the Joint Chiefs of Staff Joint Capabilities Integration and Development System.

a. An organization chart of the Office ASN-RDA is provided as Figure 3-1-2.

b. A comprehensive DoN acquisition support website titled "ASN(RDA) Information System is available. Users must be military or government civilian and request an account for access.

3.1.5 Acquisition Reform. Secretary of Defense (SECDEF) Policy memorandum of 29 Jun 1994, promulgated principals of specification and standards reform. An assistant Secretary of the Navy (RD&A) memorandum dated 27 July 1994, implemented the above SECDEF Policy memorandum. The initiatives of acquisition reform that apply to ordnance acquisition include:

a. **Performance Based Business Environment.** Performance specifications shall be used for the acquisition of all new systems, major modifications, upgrades to current systems, and non-developmental and commercial items, for programs in any acquisition category. Performance or performance-based specifications are those specifications that define equipment or systems in terms of observable and measureable operational and support characteristics and interfaces that allow the product to effectively and efficiently perform its mission. In cases where a performance specification is not practical, a non-government standard shall be used (non-government standards are those which are industry standards developed to fulfill other than a military need). The use of military specifications and standards is authorized as a last resort, with an appropriate waiver. Considerable progress has been accomplished in reducing the reliance on military specification and standards since the initiation of acquisition reform.

b. **Contracting.** All solicitations for \$100,000 or greater shall contain language encouraging contractors to submit alternatives to specifications and standards cited in the solicitations. Only those data requirements which are required by law or add value shall be included in a contract. Program Managers (PMs) shall have final responsibility for the data required by the program.

c. **Configuration Management.** To the extent practical, PMs shall maintain configuration control of functional and performance requirements only, giving contractors responsibility for the detailed design. Configuration requirements shall be prudently tailored to the material item being procured, whether it is developed at government expense or privately developed and offered for government use. Such requirements will be used to control form, fit, and functional

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characteristics while minimizing design constraints on the contractor.

d. Single Process Initiative. Because it is generally not efficient to operate multiple, government-unique management and manufacturing systems within a given facility, there is an urgent need to shift to facility-wide common systems on existing contracts.

The single point of contact for this effort will be the Administrative Contracting Officer (ACO) assigned to a facility. ACOs are directed to encourage contractors to prepare and submit concept papers describing practices that will permit uniform, efficient facility-wide management and manufacturing systems and a method for moving such systems.

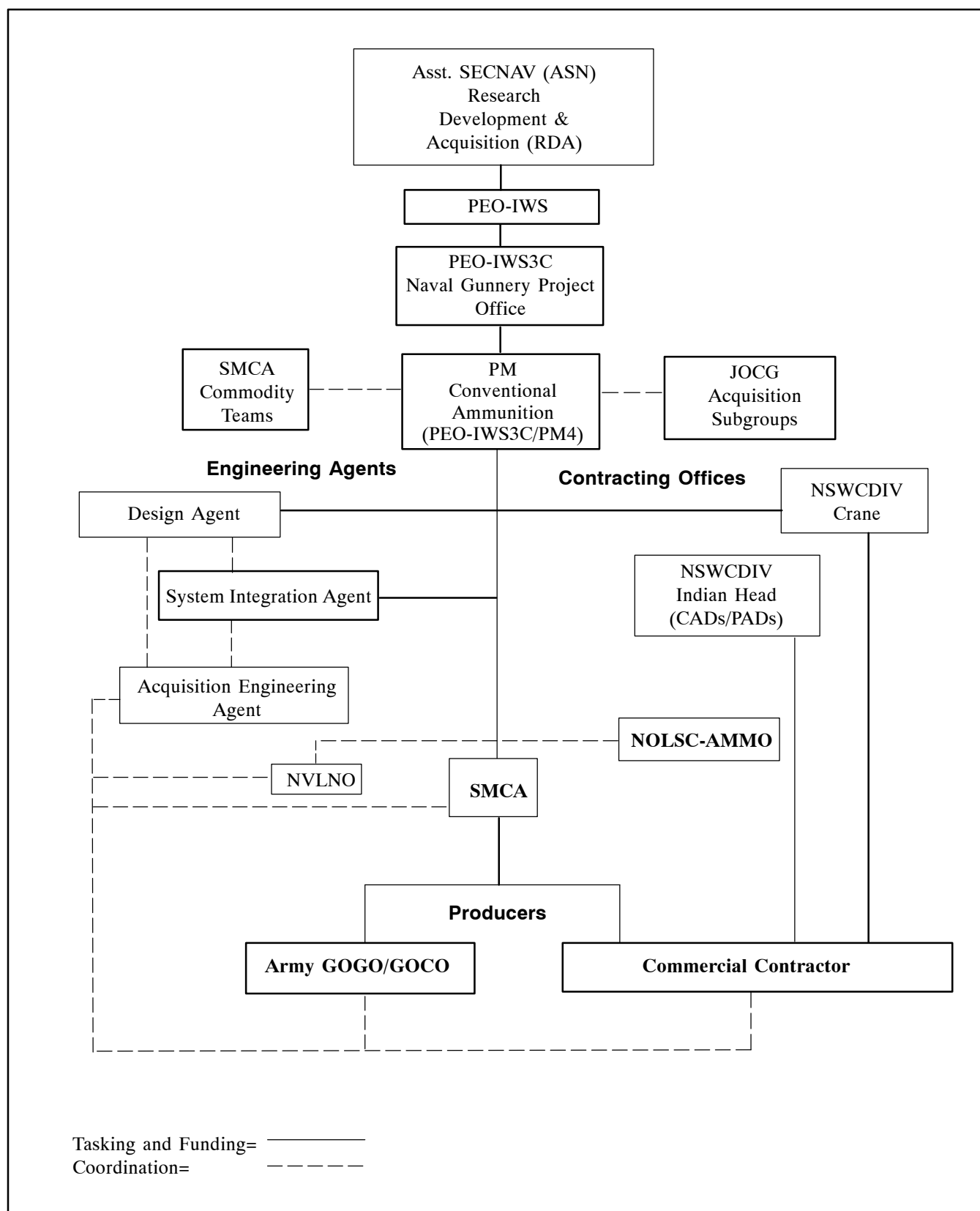
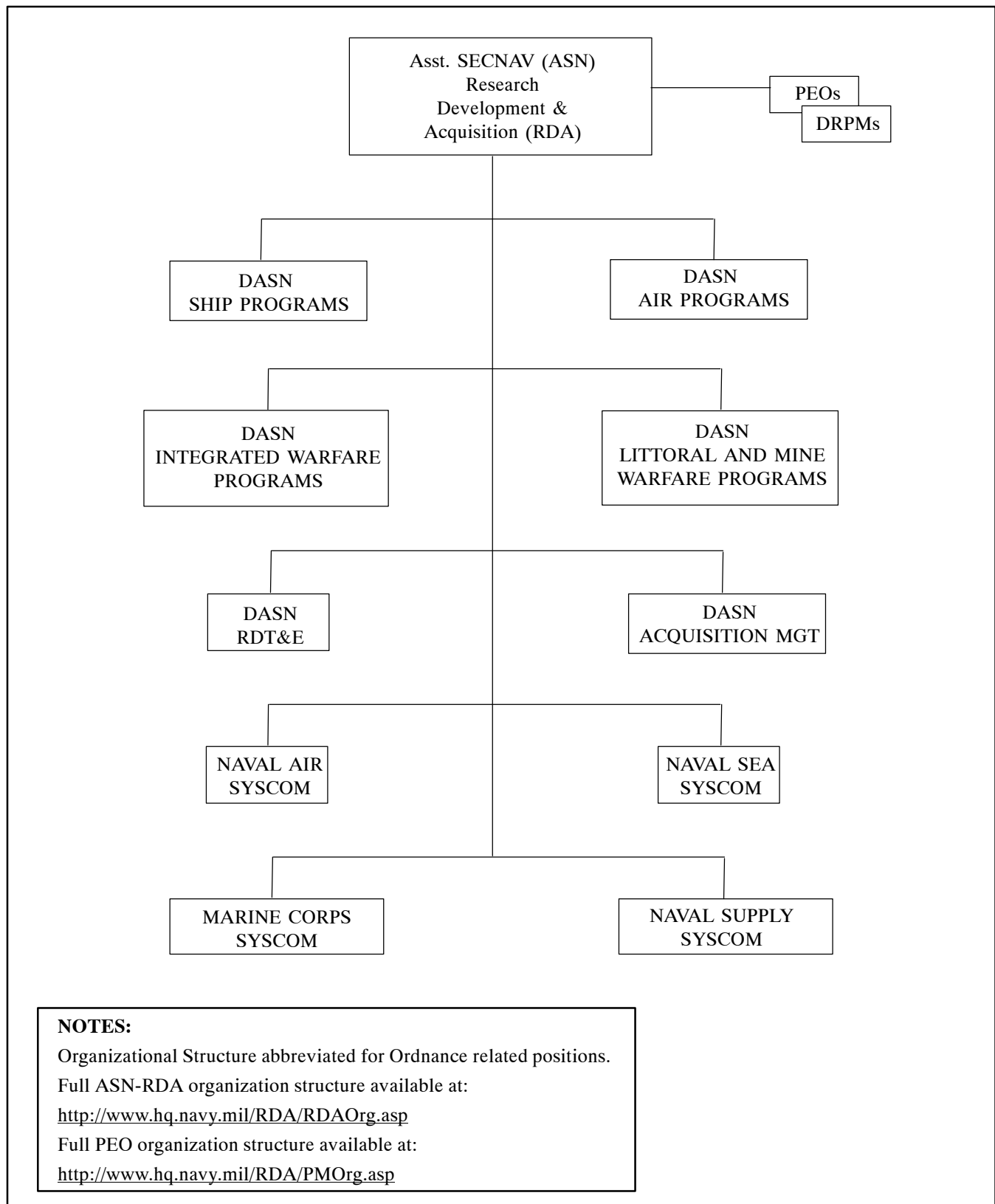


Figure 3-1-1. Acquisition Management Organizational Relationships



**Figure 3-1-2. Office of the Assistant Secretary of the Navy
(Research, Development and Acquisition)**

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Acquisition Management

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Acquisition Management

3.2.1 Acquisition Engineering.

3.2.1.1 General. The origin of an ordnance item begins with adapting a basic research breakthrough to an application that meets a military requirement or by a state-of-the-art development that enhances or fulfills a military requirement. An ordnance subsystem concept is prototyped by the fabrication of test models. If tests are successful, models are refined to achieve maximum effectiveness and are stabilized for pilot plant production. Pilot plant production provides sufficient quantities for Technical Evaluation (TECHEVAL) and Operational Evaluation (OPEVAL) under all possible conditions. Upon completion of such evaluations, and upon demonstration that operational safety and general performance parameters have been met, the configuration is Approved for Limited Production (ALP) or Approved for Full Production (AFP). Follow-on Low Rate Initial Production (LRIP) serves to prove out the production capability. Under certain circumstances, when safety is not a factor and only minor design improvements are necessary, LRIP may be initiated and AFP granted during or upon completion of LRIP. When a military requirement is established for a new ordnance subsystem concept, the Commander, NAVSEA assigns functions and responsibilities to managers and agents as described in NAVSEAINST 5400.57. The engineering assignments fall under the following titles.

a. Technical Direction Agent (TDA). A Naval activity responsible for direction and development during the conceptual phase and the advanced development stage.

b. Design Agent (DA). Usually the same activity as the TDA, responsible for the final development of a configuration for prototype, LRIP, and full production.

c. Acquisition Engineering Agent (AEA). A Naval activity responsible for technical and engineering support during development, initial production, and production after AFP.

d. System Integration Agent (SIA). A Naval activity responsible for systems interface compatibility matters.

Since the TDA and DA assignments are usually to the same activity, combined TDA and DA functions and responsibilities are discussed in this section under the inclusive term of DA.

3.2.2 Engineering Responsibilities. Annually the Program Manager (PM) assigns engineering responsibilities for specific ammunition items to specific commands in a Tasking Statement. Within the Naval Sea Systems community these Tasking Statement are called SEA TASKS. This Tasking Statement accompanies the annual funding document specifying the authorized use(s) of the funds being provided. Recurring engineering responsibilities are listed under the appropriate title as follows:

3.2.2.1 Design Agent (DA).

a. DAs are responsible for all aspects of development from the conceptual phase to ALP or AFP. During production, DAs assist in production and testing problem areas and participate in production audits, surveys, and conferences. During the in-service and operational phases, DAs review Fleet performance and quality evaluation feedback reports to verify reliability, performance, effectiveness, and maintainability of the original design. DA engineering support responsibilities for the basic design continue throughout the life cycle.

b. In addition to having primary responsibility for development of an ordnance item, DAs are responsible for performance of the basic design throughout the remaining life cycle, including effectiveness upon expenditure. Upon receipt of negative findings to the basic design, the DA is responsible for corrective redesign of existing and future configurations of the item.

c. DAs are generally responsible for product improvement or value engineering design changes, either corrective in nature, or as a result of state-of-the-art advancements.

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d. U.S. Naval ammunition is designed to be as safe and reliable as possible. Many items contain “fail-safe” or redundant safety features and backup functioning systems. Prior to AFP, extensive tests are conducted at all stages of development and Fleet evaluation. In spite of safety features and extensive testing, ammunition is inherently dangerous and is capable of major malfunctions under certain conditions. Major malfunctions which result in, or have potential for, causing injury to personnel or damage to equipment are a primary concern to all engineering support activities.

e. The DAs objectives are to attain a zero incidence of major malfunctions. Incidents that occur must be investigated and the cause(s) isolated beyond doubt as not attributable to a defective basic design.

f. Specific DA Engineering Responsibilities:

(1) Design ammunition items or components as directed by the Program/Project Manager (PM) to take advantage of new technologies or meet new threats assigned to surface ammunition.

(2) Prepare and update Technical Data Packages (TDPs) for the configuration identification of all assigned ordnance items.

(3) Review and make technical recommendations on producer requested deviations.

(4) Review engineering change proposals incident to production or procurement.

(5) Participate in pre-award surveys, post-award conferences, and product-oriented surveys.

(6) Participate in production line assessment at the producer’s plant.

(7) Develop standard test procedures applicable to first article and acceptance tests.

(8) Participate in analysis and investigations of malfunctions as directed by the PM, and recommend corrective actions.

(9) Develop Product Improvement Programs (PIPs) as directed by the PM to correct design deficiencies or reduce cost for ammunition items contained in the procurement plan.

(10) Develop appropriate disposal procedures for ammunition items under their development and for assigned ammunition items in the inventory whose presently documented disposal procedure is no longer environmentally acceptable.

(11) DAs are expected to update the Item Qualification database with documentation associated with cataloging, final type qualification, Insensitive Munitions, and other Safety/Environmental documents. Access to the Item Qualification database is available thru the Conventional Ordnance Resource Portal (CORP) website.

g. DA Budgeting and Funding.

(1) Budgeted and funded by the PM for production engineering and for product improvement support. Procurement of Ammunition Navy and Marine Corps (PAN-MC) funds are programmed annually for production engineering for each type subhead scheduled for procurement. Product improvement funds are included only for specific items as appropriate (e.g. 5”/54 ammunition). Upon Congressional budget approval, funds are allocated by the PM to each DA on Work Request (WR) documents.

(2) Budgeted and funded by the PM for malfunction investigations, including the costs of special tests for determination of failure modes. O&MN funds under the budget line entitled ISEA Support are budgeted annually based on PM projected requirements/historical cost. Upon Congressional budget approval, funds are allocated by the PM to each DA on work request documents.

(3) Research and development functions of DAs for ammunition prior to ALP/AFP are budgeted and funded by the PM using RDT&E funds.

3.2.2.2 Acquisition Engineering Agent (AEA).

a. Upon AFP, engineering responsibility shifts from the DA to the AEA. AEAs provide configuration control and production engineering support for manufacturing, loading, and assembly.

b. The AEA is the primary engineering activity for ammunition after AFP. General responsibilities include identifying and controlling ammunition item configuration, and maintaining safety and quality during production.

c. Specific AEA Engineering Responsibilities.

(1) Maintain current technical data for the configuration identification of all assigned ammunition items in the Automated Configuration Management Data System (ACMDS) described in Section 3-4 of this volume.

(2) Act as the focal point for coordinating and negotiating with regard to production engineering, product assurance, and configuration management.

(3) Prepare and issue Automated Data Lists (ADLs) for items requiring procurement.

(4) Review and approve, based on DA concurrence, contractor-requested minor deviations.

(5) Refer major and critical deviations to the PM and maintain a record of all deviations for assigned ammunition.

(6) Develop a TDP priority list for DA preparation, and review TDPs prepared by the DA.

(7) Review and record engineering change proposals incident to production or procurement.

(8) Participate in production line assessment at the producer's plant.

(9) Help develop and coordinate standard test procedures applicable to first article and acceptance tests.

(10) Coordinate the development of the schedule identifying the planned procurement of items for Navy and FMS which will require DA design and engineering support in the out years.

(11) Approve and assign numbers to DA prepared Hazardous Component Safety Data Statements (HCSDS) relating to new items.

(12) Provide operations research and statistical analysis services including requirements determination, to support the PM's acquisition process.

(13) Furnish the Contracting Office with accurate and current data required for the preparation of procurement documents.

(14) Review all procurement technical data from DAs for uniformity, adequacy, completeness, and continuity.

(15) Provide engineering services incident to production, including preproduction design review for producibility, value engineering studies, and technical guidance on pilot production design validation.

(16) Provide Procurement Data Packages (PDPs) to the Contracting Office for component procurement.

(17) Develop the Configuration Identification Procurement Planning Sheets (CIPPS).

(18) Perform configuration audits of items under procurement.

(19) Prepare listings of equipment used during acceptance inspections and review gage designs for accuracy in accordance with internal requirements.

(20) Manage configuration control of new items in the low rate initial production program in order to validate accuracy of technical data prior to full production.

(21) Participate in pre-award surveys, post-award conferences, and product oriented surveys.

(22) Participate with the DAs in analyses and investigations of major malfunctions, and recommend corrective actions to the PM.

(23) Manage and maintain the ordnance gage program.

(24) Ensure that MIL-STD-1168B standards are complied with in ammunition lot numbering and in preparation of ADCs by all activities engaged in future acquisition and maintenance of surface ammunition.

(25) Provide detailed instructions for the correct use of interfix numbers, sizes of ammunition lots, data card content, and distribution to all activities concerned for new procurement and maintenance of surface ammunition.

d. AEA Budgeting and Funding.

(1) Budget and funded by the PM for production engineering. PAN-MC funds are programmed annually for production engineering for each type subhead scheduled for procurement. Upon Congressional budget approval, funds are allocated by the PM to the AEA on Work Request documents.

(2) Budgeted and funded by the PM for malfunction investigations. O&MN funds under the

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budget line entitled Maintenance Support are budgeted annually based on AEA-projected requirements. Upon Congressional approval, funds are allocated by the PM to the AEA on Work Request documents.

3.2.2.3 Systems Integration Agent (SIA).

a. The SIA is the primary engineering activity responsible for coordinating the engineering efforts in one area with the other two, to ensure compatibility and interoperability. The three areas are:

(1) Gun ammunition.

(2) Gun systems, including ammunition handling system.

(3) Fire control systems.

b. Specific SIA Engineering Responsibilities:

(1) Identify and ensure ballistic compatibility between ammunition sub-assemblies.

(2) Determine interface requirements to provide ballistic compatibility between the ammunition, gun, and fire control systems.

(3) Advise the PMs of interface problems and recommend solutions.

(4) Review all gun ammunition lot acceptance and First Article Tests (FAT) to quantify the contribution of ammunition related errors to total gun weapons system performance.

(5) Review gun ammunition deviations, and engineering change proposals for their impact on ballistic compatibility and system performance.

c. SIA Budgeting and Funding. Budgeted and funded by the PM for production engineering and for product improvement support. PAN-MC funds are programmed annually for production engineering for each type subhead scheduled for procurement. Product improvement funds are included only for specific items as appropriate (e.g. 5"/54 ammunition). Upon Congressional budget approval, funds are allocated by the PM to the SIA on Work Request documents.

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CHAPTER 3.3

Procurement

3.3.1 Procurement.

3.3.1.1 General. Procurement is under the management control and policy guidance of the Program Managers (PMs), and is the product of the planning, programming and budgeting cycle, and the requirements determination process.

3.3.1.2 Line Item Requirements. The surface ammunition line item requirements incorporated into the Program Objective Memorandum (POM)/Program Review (PR) process and into the subsequent phases of the budget evolve from the acquisition objectives mandated by the annual Office of the Secretary of Defense (OSD) and Chief of Naval (CNO) guidance. These requirements are qualified by constraints in funding, production capabilities, altered priorities, or other changes. Also, the computed buy quantities are sometimes spread over a longer period of time than initially planned in order to maintain a "warm production base." They may also be deferred to take advantage of economical buy opportunities through consolidation of procurements. Because of these and other inhibitors, a variance often exists between the acquisition objectives and the objectives resulting from the budget cycle for which funding ultimately is approved and allocated.

3.3.1.3 Programmed Procurement. The programmed procurement is the "buy" quantity of items required to:

- a. Introduce new or replacement items.
- b. Fill combat material requirements in support of mobilization scenarios in the Secretary of Defense (SECDEF) guidance.
- c. Secure component support of end item maintenance.
- d. Support the major claimants projected peacetime expenditures.

3.3.1.4 Buy Quantity Resolution. During the period from POM initiation through Congressional approval and the final allocation of funds, funding requirements for material support undergo changes before the

procurement buy quantity is resolved. The approved and funded procurement quantity represents that portion of the total item requirement which cannot be satisfied from existing assets by maintenance actions or reclamation.

3.3.2 Procurement Responsibilities.

3.3.2.1 Resource Sponsor.

- a. Provides resource management, policy, overall monitoring, and direction for the use of funds in procuring ammunition.
- b. Provides coordination with other resource sponsors in developing a consolidated budget submittal to best meet the needs of the Fleet.
- c. Oversees the development, coordination, and justification of the requirements stated in the POM and budget submittals.

3.3.2.2 Program/Project Manager (PM).

- a. Provides program management, policy, overall monitoring, and direction for the procurement of ammunition.
- b. Develops, coordinates, and justifies the requirements stated in the POM and budget submittals.
- c. Provides peacetime, surge, and mobilization requirements and priorities to the Single Manager for Conventional Ammunitions (SMCA).
- d. Approves and submits to the SMCA, the Navy's Conventional Ammunition Plan (CAP) three times (May, August, December) annually for SMCA-assigned items, to coincide with the Services and SMCA budget development. Also submits an updated execution year requirements for generation of a one-year execution price list (September). Due to the length of time required for the SMCA to process a CAP submit and return an updated price list the CAP submits are actually used for the following budget. For example, the May CAP submit is about the same time the Program Office is preparing the Navy Comp-

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troller (NAVCOMPT) (Services) Budget. However, the prices used are from the CAP submitted in the previous December because the May CAP prices won't arrive until after the NAVCOMPT budget is due. The CAP prices are actually used for the Budget Estimate Submission (BES) (also known as the OSD Budget) in the September time frame. Similarly, the July CAP submit results in prices that will be used for the President's budget.

e. Develops a procurement shopping list based on requirements and asset data.

f. Allocates, as appropriate, Procurement of Ammunition Navy and Marine Corps (PAN-MC) funding for procurement and production.

g. Provides funds by Military Interdepartmental Purchase Request (MIPR) to support requirements for supply, purchase, production, and first destination transportation of ammunition.

h. Allocates, as appropriate, Operations and Maintenance, Navy (O&MN) funding and work request orders to accomplish engineering functions incident to procurement.

i. Reviews, and when appropriate, approves contractor requested or recommended deviations which are classified as major or critical.

j. Makes decisions as to procurement of economical buy quantities.

k. Provides guidance to the Acquisition Engineering Agent (AEA) and Design Agents (DAs) concerning their engineering responsibility for production items.

l. Arbitrates and resolves engineering and technical disagreements between the AEA and the cognizant DA.

m. Reviews critical or interfacing Engineering Change Proposals (ECPs) affecting items in production.

n. Initiates Low Rate Initial Production (LRIP) buys for new or improved ammunition prior to full production procurement.

o. Procures some Navy developed items such as specialized small arms ammunition on commercial contracts through Naval Surface Warfare Center Divi-

sion (NSWCDIV) Crane or elsewhere within the Navy.

3.3.2.3 Design Agent (DA). DAs are assigned engineering and design responsibilities. This includes development and maintenance of design documentation for new or modified ammunition items (including support equipment) under their respective cognizances. Specific responsibilities and assignments are in Section 3-2 of this Volume.

3.3.2.4 Acquisition Engineering Agent (AEA). The AEA is assigned engineering responsibilities for procurement and production. Specific responsibilities and assignments are in Section 3-2 of this Volume.

3.3.2.5 Systems Integration Agent (SIA). The SIA is assigned engineering compatibility responsibilities. Specific responsibilities and assignments are in Section 3-2 of this Volume.

3.3.2.6 Naval Operational Logistics Support Center-AMMO (NOLSC-AMMO), Mechanicsburg, PA.

a. Upon request from the PM provides destinations and MILSTRIPs for PM MIPRs to the SMCA.

b. Collects, records, and maintains the supply data essential to the procurement process.

c. Tracks and monitors procurement deliveries to inventory in Ordnance Information System-Wholesale (OIS-W) Procurement, Renovation, and Production (PRP) module.

d. Generates MILSTRIP prepositioned material receipt cards to alert consignee activities of shipments due-in from military and contractor production facilities.

3.3.3 Full Scale Production/Limited Production.

3.3.3.1 Transition to the SMCA. Much of the Navy's ordnance is developed by the Navy and procured by the SMCA. Because of the user/SMCA relationship, DoD 5160.68 of 22 December 2003, requires close collaboration between the PM and the SMCA throughout the development stages of an ammunition item. The purpose of such collaboration is to establish the groundwork for the transitioning of the item to SMCA for full scale production after development and completion of Technical Evaluation (TECHEVAL) and Operational Evaluation (OPEVAL). Transition Plans are developed in accordance with DoD 5160.65-M of 1

April 1989. New items which achieve baseline stability and which can be supported by fully developed technical and configuration documentation are certified by Milestone Decision Authority (MDA) as Approval for Full Production (AFP). AFP is provisionally assigned as a means of obtaining an approval for a limited quantity of items when all operational or performance requirements have not yet been achieved. Pending such, these items are not transitioned to the SMCA. In some instances after AFP, the PM may elect for technical reasons, or in consideration of budget constraints, not to enter immediately into full scale production. In such cases the item is procured on a Low Rate Initial Production (LRIP) basis to verify producibility. LRIP can be initiated either prior to or after transition to the Single Manager, based on PM judgement. When the new item is transferred and SMCA institutes LRIP on behalf of the Navy, close collaboration between the SMCA and Navy is maintained.

3.3.3.2 Other Procurement Sources. Although procurement of the Navy's ammunition needs for SMCA-assigned items is the responsibility of the SMCA, the PM will arrange for procurement of limited quantities of Navy developed items at Navy activities on occasion. This usually occurs in cases where small quantity procurement by SMCA is not cost effective. These procurements will be executed by a NSWCDIV Crane or other Navy activity commercial contract as directed by the PM.

3.3.4 Procurement Plan.

3.3.4.1 Conventional Ammunition Plan (CAP). The Navy must provide the SMCA their planned requirements for the Future Years Defense Program (FYDP) and their updated execution year requirements for generation of the one-year Execution Price List. This planning information will be submitted by the PM via the Joint Munitions Command (JMC). Requirements include prior year, current year budget year one, budget year two and the following four years.

3.3.4.1.1 Timing of Conventional Ammunition Plan (CAP) Submission. CAP submissions for all FYs are provided three times annually. The Navy's requirements information (other than execution requirements) will agree with their budget line submissions to OSD Comptroller (OSD (C)). Since there is a two-year budget cycle or biennial budget, the FYs to be entered changes with every other May submission. In order to avoid confusion, for each cycle a call letter will be disseminated to the Services, with guidance showing the cycle name, the fiscal years for

which planned requirements are needed and the due date of the Services requirements. The Navy must also provide an updated execution year requirements in September for development of the one-year Execution Price List.

a. The May submission reflects the Services initial requirements for the next budget year. The prices received from this submit will be applied to the BES (Aug/Sep timeframe).

b. The July submission reflects changes to the Services budget requirements and is the basis for preparation of the President's Budget (PRESBUD) in the December/January timeframe which is forwarded to Congress.

c. The September submission. Reflects updated one-year requirements for the upcoming execution year. These requirements are the basis for the Execution Price List, which is used in the generation of funded requirements forwarded to the JMC.

d. The December Submission reflects changes to the Services budget after OSD review. These changes will be included in the PRESBUD submission in January/February timeframe. The results of this submission are used as part of the President's Budget Back-up Book, which is forwarded to Congress.

3.3.4.2 Procurement Planning Meeting. Typically in April each year, prior to the May CAP submittal, the AEA convenes a procurement planning meeting with the SMCA PM, and NOLSC-AMMO. The purpose of this meeting is to review and analyze each line item projected for procurement, define the technical data required, identify potential problem areas, develop and finalize the Configuration Identification Procurement Planning Sheet (CIPPS), and achieve consensus on procurement strategy. In times of declining numbers of procurements, this process has been completed by exchanging and commenting on the CIPPS rather than holding a formal meeting.

3.3.4.3 Funding Risk Assessment. The PM's submittal of the May CAP represents the programmed quantities currently identified in the POM or PR. It reflects the pricing information and other data provided earlier to the PM by the SMCA or obtained during the procurement planning meeting. The May CAP also indicates by item the level of risk associated with the funding proposed for the budget and following two fiscal years. These levels are:

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a. Low risk - the item is a requirement for which there is little or no doubt funding will be received.

b. Moderate risk - the item is a requirement for which there is an even chance of receiving funds.

c. High risk - the item is a requirement for which there is doubt that funding will be received.

3.3.4.4 CAP Supplemental Documents. Two important documents are provided to the SMCA to supplement the information in the May CAP: the CIPPS for end item related components, and the Procurement Data Package (PDP). Both the CIPPS and PDP are submitted to the SMCA early in the procurement process to enable timely solicitation, leading to formal award of contract the following fiscal year.

3.3.4.5 SMCA CAP Response. The May submission requires all pricing information and support cost requirements and the CAP from the customer. The August Submission requires the CAP from the customer and the call letter. The September submission requires an updated CAP from the customer or direction to use the August submission as a baseline. The December submission requires the CAP from the customer, the call letter and incorporates directed Program Budget Decisions (PBDs) to include inflation indices. The SMCA response includes:

a. Aggregating all Service Requirements. A consolidated price list will show levels of risk assigned by the Services, the prices for the current fiscal year, budget year one and budget year two. A price list will be published each cycle. The price list will also reflect dollars for support cost only requirements.

b. Customer Impacts. Provide in writing as soon as possible, any information that may impact the PM's planned acquisitions or deliveries. Examples of these impacts include: production problems affecting deliveries; product improvement programs that may cause delays; development of a backlog in deliveries that could prevent delivery within the funded delivery period; decisions affecting the production base, such as closing a line or one time or final buy of components; or any other situation that impacts the customer's delivery dates, funding or budgeting.

c. Budget Support Documents. Develop budget support documents (P-5, P-5a, and P21) and furnish them to the customer via the internet protocol using

the NIPRnet or electronically, within 30 days of the date all required information is received. The customer should expect delivery as shown on the P-21 delivery schedule. If this is unsatisfactory, the customer can request a change by separate correspondence.

3.3.4.6 Production Schedule (P-21). This exhibit is produced by the JMC. Primary point of contact is the production manager for the commodity team in the JMC. The P-21 is published on a password protected website. It displays the monthly delivery schedule for all undelivered prior year orders, and current year, budget year and first program year orders. Also shown are procurement lead times and manufacturer's data. Lead times vary from item to item and are based on the developing contractor, engineering, like item procurement, history and expected date of funding (normally 1 October of the fiscal year). The delivery order schedule is normally based on the component having the longest procurement lead time. This item is called the pacing component. The manufacturer's data includes the name, location and production rates for current and planned manufactures.

3.3.4.7 Procurement History and Planning (P-5a). Input for this exhibit is provided by the production manager and completed by the pricing analysis in the commodity teams. It is checked and published on a password protected website by the Operations and Assessment Team of the JMC. The Procurement History and Planning breakout is modeled after the Four Year Ammunition Cost Analysis and requires the prior year (or last actual procurement year), current year, biennial budget year one and biennial budget year two data. The prior year can differ between the Ammunition Cost Analysis and the Procurement History and Planning. If there is no requirement for the prior year on the Ammunition Cost Analysis, that column will be blank. If the column is blank, the prior year on the Procurement History and Planning may reflect a previous year's program information not to exceed three years prior.

3.3.4.8 Cost Analyses (P-5). This exhibit displays the program cost breakdown and is submitted to the Services. It is also published on the same password protected website as the P-21 and P-5a. It consists of a local use cost analysis worksheet and a four year cost analysis. The local use worksheet provides a cost analysis for all elements of the end item for the eight year period shown in blocks a-h of the CAP form. The cost categories on the Ammunition Cost Analysis exhibit represent a number of elements that must be tailored to adequately depict the ammunition item. The

categories include hardware, production support, and nonrecurring costs. From the worksheet, a four year Ammunition Cost Analysis is produced and sent to the customer. The four year cost analysis provides all element costs of the end item for prior year, current year, budget year one, and budget year two as shown in blocks a-d of the CAP form.

3.3.4.9 Integrated Conventional Ammunition Procurement Plan (ICAPP). The ICAPP displays all the Services current and planned buys through the Future Year Defense Plan (FYDP) along with information on the status of undelivered orders, production rates and planned mode of acquisition. The ICAPP database will include information about all conventional ammunition assigned to the SMCA by DoDD 5160.65 of 14 April 2004, (including non-transitioned items) which are procured by the Army. The Services and the OSD budget analyst use this information in their resource planning and allocation processes. A complete ICAPP, based on the President's Budget, is published via compact disk (CD-ROM), in February/March and is used to begin the next planning cycle, which reflects the president's Budget. This analysis is used to begin the next planning cycle. Updated ammunition requirements summaries (partial interim ICAPPs) are provided for the POM (Service Budgets) and the BES submissions, also on CD-ROMs. An ICAPP, based on the President's budget, which includes budget years only, is published in February/March, via the NIPRnet.

3.3.5 Military Inter-Departmental Purchase Requests (MIPRs).

3.3.5.1 Funded Procurement MIPRs. After the PPBS stages, the actual procurement of ordnance begins with Congressional approval of the budget and subsequent allocation of funds to NAVSEA by the Comptroller, DoN. After receiving funding through STARS, the PM prepares a MIPR for submission to SMCA which cites the signal and fund codes and the appropriation. The SMCA does not commit, obligate, or expend funds against any MIPR that exceeds the total funds committed on the MIPR. Further, the SMCA accepts only those MIPRs whose funds can be obligated within the life of the appropriation.

3.3.5.2 MIPR Acceptance/Rejection. Within 30 days after receipt of a funded MIPR, the SMCA formally indicates acceptance or rejection by execution of a DD 448-2, Acceptance of MIPR. If it becomes known after notification of acceptance that the price may not be maintained, the SMCA will resolve the price differential with the PM.

3.3.6 Procurement Ammunition Army (PAA) Appropriation. Per PBD 432, FY 99 and later customer orders are to be processed through the PAA appropriation on a reimbursable basis. Orders are priced at actual procurement cost.

3.3.6.1 Funded Reimbursable Authority (FRA). Based on the President's Budget Submission of requirements, the JMC requests FRA to cover all non-Army requirements. During the April/May timeframe, JMC revalidates the customer's requirements and requests the appropriate level of FRA from higher headquarters.

3.3.6.2 Obligation of Orders. No procurement can be made in advance of a funded order. Customer funds are obligated upon acceptance as reimbursable Economy Act Orders; however, obligation is limited by the life of the customer funds. In either case the JMC must provide or enter into contract to provide the requested goods or services before the obligation life expires. At the end of the appropriation life (three years for procurement appropriations) funds are adjusted down to match actual obligations and unobligated funds are returned to the customer. Disbursements may not be made after the appropriations close (8 years for procurement appropriations).

3.3.7 Contract Award.

3.3.7.1 Pre-award Survey. Based on the advanced planning data contained in the CAP, PDPs, and other documentation, JMC prepares bid packages and initiates contract solicitation. After receiving the funded MIPRs JMC proceeds to award of contract. If on-site inspection of prospective contractors is necessary, the PCO may arrange a pre-award survey of the contractor's facilities and equipment. The Navy AEA and DA (or other Service representative if the Navy is not the developing Service) will assist and advise the PCO as to the technical capability of the contractor.

3.3.7.2 Post-Award Conference. The PCO, the Contract Administration Officer (CAO), the contractor, or the PM/AEA may request and participate in post-award for first time award to a contractor. This may be requested if difficulties were experienced in previous procurements of the item, or there exists a high risk of failure due to item complexity, urgent delivery schedule, or technological considerations.

3.3.7.3 Quality Assurance Letter of Instruction (QALI). After contract award, the PCO invites the requiring Service and CAO to participate in quality

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assurance conferences. Prior to production, the AEA has responsibility for ensuring that the contractor and CAO understand and are capable of complying with the requirements for quality assurance and on-line inspections. To ensure this understanding, the AEA prepares and submits to the JMC the Quality Assurance Requirements (QAR) applicable to the procurement article. From this document, the JMC prepares the QALI. The requirements in the QALI are for guidance of the CAO and specify mandatory sampling inspection and test instructions. In-conference orientation and familiarization instructions regarding the quality control requirements of the contract are provided to CAO personnel having on-site review authority. This meeting provides opportunity for exchanging information regarding existing or anticipated problems.

3.3.7.4 Government Load, Assemble, and Pack (LAP). Explosive, incendiary, and dangerous ammunition items are usually not delivered by the contractor fully loaded or assembled except for small arms ammunition and some pyrotechnic/demolition items. JMC contracts for the various components that constitute the end item and arranges for their explosive LAP at specified Army Ammunition Plants or JMC activities such as Crane, or McAlester.

3.3.8 Procurement Status.

3.3.8.1 Procurement Cancellation. When all or any part of the quantity requested in a MIPR is to be canceled, the PM, will notify the JMC who advises concerning termination charges. If, after examining the charges, the PM determines that termination action is to be pursued, the PM will submit an amendment to the MIPR directing termination.

3.3.8.2 MIPR Reviews. In accordance with a mutually agreeable schedule, JMC and the PM conduct periodic MIPR reviews. These reviews address, but are not limited to, funding, delivery, production, scheduling, price changes, billing and payments, lead time, program projections, and processing methods. Billings for both advance and progress payment requests are submitted by JMC on SF 1080. All significant changes that affect the contents of a MIPR must be processed by the PM as formal MIPR amendments (DD Form 448). These include changes in quantity, prices, funds, National Stock Number (NSN), part or drawing number, specification, delivery schedules, and engineering changes. No formal MIPR amendments are required for nontechnical, minor, or administrative changes such as shipping or destination, or clarification of item description or component entities. These

are communicated to the JMC by mutually acceptable means.

3.3.8.3 Procurement/Renovation/Production (PRP) File. As Inventory Manager (IM), NOLSC-AMMO maintains in OIS-W a central PRP status file for ordnance items. This file provides a mechanized record of internal and external procurement and maintenance actions from the time a MIPR or procurement document is issued until material delivery has been completed. For external procurements, NOLSC-AMMO relies on the PM to provide procurement action status as it occurs to maintain an accurate and complete database. The file record's item nomenclature, DODIC/stock number, applicable funding and MILSTRIP numbers, applicable procurement document numbers, and delivery schedules are loaded in the file when MIPRs are accepted and when contracts are awarded. NOLSC-AMMO therefore has document tracking capability which enables it to keep up-to-date status on each procurement delivery, in OIS-W.

3.3.8.4 Procurement and Production Status (PPS) File. The Navy AEA maintains a status file which receives information from the PRP file at NOLSC-AMMO, as well as additional information entered by the AEA personnel on production actions and problems. This file provides more detailed information on production status for the PM and AEA to properly manage their procurement programs.

3.3.8.5 SOSMA Form 38s. DoD 5160.65-M requires JMC to furnish monthly delivery status reports on SOSMA Form 38s to the requiring Service. These reports show the progress of items being acquired or produced by the SMCA. These reports contain the requirements schedule, current forecast schedule, quantity currently available, and the cause of delay or slippages. These forms are sent by the supply personnel in the JMC to NOLSC-AMMO and AEA for entry into the PSS.

3.3.8.6 Prepositioned Material Receipt Cards (PMRCs). NOLSC-AMMO's loading of delivery schedules from the Form 38s into the OIS-W procurement files enables the establishment of due-ins and the generation of PMRCs to prospective receiving field activities. For items not being delivered by the SMCA, NOLSC-AMMO relies on the activity assigned by the PM to provide the required delivery schedules for entry into OIS-W. New PMRCs are forwarded whenever delivery schedules are changed or updated. This is often the only advanced notice of incoming assets

that an activity gets for receipt and storage personnel workload planning.

3.3.8.7 SOSMA Form 45s. The JMC also utilizes SOSMA Form 45s. This form shows the actual production schedules at the JMC and contractor facilities. These forms are available to the Navy Liaison Office (NVLNO) at Rock Island, IL, Navy PM, and AEA to obtain additional information not contained on the SOSMA Form 38.

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CHAPTER 3.4

Configuration Management

3.4.1 General.

3.4.1.1 Configuration Management. Historically DoD has had a military standard addressing the requirements for configuration management. The latest configuration management directions were consolidated in MIL-STD-973. With the philosophy of acquisition reform to reduce the level of prescription on how things should be accomplished, this standard has been cancelled without replacement. DoD has adopted ANSI/EIA-649 and has published MIL-HDBK-61 as guidance for configuration management. The program office has issued a 2T ammunition specific, configuration management plan. Configuration management remains an all-important discipline in the era of acquisition reform.

a. It integrates the engineering technical and administrative actions required to identify, document, maintain, and monitor the functional and physical characteristics of an item during its life cycle.

b. It controls and records the status of all changes proposed to Configuration Items (CIs) and their related documentation.

c. It facilitates continuity and direction during design, production, operation, and maintenance to ensure that the item is what it was meant to be throughout its life cycle, and that all supporting technical documentation represents that item.

3.4.1.2 Configuration Evolution. The configuration of an ammunition end item is determined during design, derived and proven during development, established during production, and maintained during operation and support. The concept is simple; implementation is time-consuming, complex, and iterative. The evolution of a typical CI usually involves the following repetitive sequence of events:

- a. Identify what is to be produced.
- b. Operate and test.
- c. Control changes.

d. Re-identify.

e. Produce.

f. Control changes.

g. Re-identify and modify.

h. Operate and test.

i. Control changes.

j. Re-identify and modify.

k. Operate and maintain concurrently with follow-on production to end of life cycle.

3.4.1.3 Configuration Regulation. The basic guidance for configuration identification and management in the Navy is contained in MIL-HDBK-61. Configuration control of in-service ammunition items, although discussed in Section 4 of this volume, predominantly refers back to this Chapter. The steps of configuration management will be covered starting with those involved in item identification, then item control, item status accounting, and item audit.

3.4.2 Configuration Identification. The purpose of configuration identification shall be to incrementally establish and maintain a definitive basis for control and status accounting for a CI throughout its life cycle. Item identification begins with the generation of the components of the Procurement Data package (PDP).

3.4.2.1 Procurement Data Package (PDP). The PDP is the technical documentation submitted to the Joint Munitions Command (JMC) or other procuring office for use by the Procuring Contract Officer (PCO). Other procuring offices utilized include Naval Surface Warfare Center Division (NSWC DIV) Crane, Naval Operational Logistics Support Center (NOLSC-AMMO), and Army Research, Development and Engineering Command (ARDEC). The PDP components are as follows:

a. Technical Data Package (TDP). All documents prepared by the Design Agent (DA) necessary

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to identify the technical aspects of the product. These documents include required drawings, performance specifications and Military, Federal, and Joint Service specifications and standards, etc. It also includes an Automated Data List (ADL), a top level document which list all applicable documents, exceptions to these documents and additional requirements.

b. **Contract Data Requirements List (CDRL).** The CDRL is a listing prepared by the Acquisition Engineering Agent (AEA) and/or procuring office to identify the required data item deliverables from the contractor.

c. **Quality Assurance (QA) Provisions.** These provisions identify the requirements for a quality program, statistical process control, supplemental quality assurance provisions and survey, audit and test requirements. The survey and test requirements include Pre-Award Surveys (PAS), Post-award QA conferences, First Article Testing (FAT), and any other conference, survey, audit, or review requirements.

d. **Acceptance Inspection Equipment (AIE).** Lists equipment such as a tabulation of gages required for certification and acceptance of ammunition items.

e. **Configuration Management Plan (CMP).** The CMP describes the processes, methods, and procedures to be used to manage the functional and physical characteristics of the assigned CI.

f. **DD-254 Security Classification Requirements.** These requirements contain security classification of CI and associated requirements. Refer to Section 7-2 of this volume for further explanation.

g. **Military Interdepartmental Purchase Request (MIPR) standard clauses.** (If procured by another service).

h. **Aperture Card Inventory List (optional).**

i. **PDP Checklist/Return Receipt.**

3.4.2.2 Technical Data Package (TDP). Preparation of the TDP is a prerequisite to obtaining Approval For Production (AFP) and is accomplished for all development items. The standardization of documentation is essential for the transitioning of items to Single Manager Conventional Ammunition (SMCA) and for developing and maintaining the PDPs to support procurement. The TDP will contain those drawings,

standards, and specifications needed to manufacture, package, ship, maintain or renovate, and accept a CI. The technical data in the TDP is incorporated into the Automated Configuration Management Data System (ACMDS) and upon Approved for Full Production (AFP) defines the product baseline. Changes from the product baseline are substantiated by approved waivers, deviations, Engineering Change Proposals (ECPs), and Automated Data List (ADL) change notices.

3.4.2.3 Automated Data List (ADL). The Acquisition Engineering Agent (AEA), in coordination with the DAs, prepares an ADL which identifies and describes the production configuration of each item introduced into the ammunition supply system. Each ADL contains a listing of its pertinent drawings, specifications, standards, provisions, and requirements used as the current baseline for procurement, loading, and maintenance. The ADL also identifies the ADLs of each of the item's subassemblies, support equipments and test sets. Each ADL is uniquely numbered to apply to one specific line item configuration. This number is the same as that assigned to the assembly or top level drawing for the item, if possible. The basic number is suffixed for each modified version and is recorded in ACMDS. This number is used as reference throughout the procurement process and is cited in the procurement contract and on MIPRs. It is also included in the PDP. In addition to its use as a control document, the ADL provides basic technical data for the formulation of ammunition data cards.

3.4.2.4 Classification of Characteristics (CC). A CC analysis is conducted by the DA and an appropriate CC code assigned to appropriate physical and function characteristics of an ammunition item. The CC code categorizes the characteristic as critical, major, or minor and is cited on each drawing, specification, or other relevant documents, as follows:

- a. Critical - C1 through C99.
- b. Major - M101 through M199.
- c. Minor - 201, 202, etc.

Supplementary symbols may be assigned which suffix the Classification Code to convey specific information (e.g., E - requires exceptional testing or inspection, L - potentially hazardous, etc.). CC codes assist in decision making by reducing judgment demands and providing visible indicators useful in determining the disposition of nonconforming material. The codes are a useful tool in the decision process for approving

or disapproving contractor recommended deviations. DoD-STD-2101, Classification of Characteristics, is the source of information concerning their assignment and use in configuration management.

3.4.2.5 Mark/Mod Assignments. Navy designed ammunition items and components are generally identified by nomenclature followed by a Mark (MK) and Mod number, for example:

Flare, Decoy MK 48 Mod 0
Flare, Decoy MK 48 Mod 1

MK 48 Mod 0 is assigned to the first approved design with a unique set of physical and performance characteristics. Subsequent improvements or design changes not affecting performance characteristics will result in a modification which is identified as Mod 1. Army items are identified by a similar system of nomenclature and alphanumeric numbering. For example:

Charge Demolition M5A1

M5 is the first approved design in the demolition charge family with characteristics sufficiently different from the M4 design. The A1 is the first modification.

3.4.2.6 Lot Control. Ammunition items vary in complexity from a simple 2-lb cast block of TNT in a cardboard/metal container with a well for a blasting cap to the guided projectile that has several explosive and electronic components that must function in consonance. Primary and secondary components are produced by a number of commercial manufacturers under diverse conditions and with various approved deviations. The assignment of lot numbers and control of component homogeneity during production is compartmentalized by manufacturer production line and production period for all components and the end item produced. Lot data records provide the identification of these compartments (lots, lot strata) for tracking and control of any given lot throughout its life cycle. Some ordnance items are mass-produced as low-cost/high-volume material because they contain a minimum of parts or components. For example, cartridge, caliber 9MM, M882, consists of a bullet, a cartridge case, a primer, and smokeless powder. These components and the assembled round are produced in large quantities by automatic equipment at a rapid rate under constant production conditions. The probability is that large quantities are homogeneous. New lot numbers need not be assigned except for a change in component

supplier, contract termination, or completion of a month's production run. Lot sizes can run as high as six-digits. Lot limiting factors for a complex item with low-to-moderate rate of production, such as gun ammunition, would result in lot sizes that would seldom exceed 10,000 rounds. For ships' combat readiness risk mitigation, arbitrary maximum lot limits have been imposed regardless of homogeneity for certain gun ammunition items.

<u>TYPES</u>	<u>ROUNDS</u>
76MM Fixed Cartridges	5,000
5" Propelling Charge	5,000
5" Projectiles HE	1,000
5" Illuminating Projectiles	500
5" PBXN 106	100-2000

3.4.2.7 Lot Numbering Systems. As the original military agencies for design, development, and production of ammunition, the Navy and Army developed lot numbering systems to accommodate their own procedures for control of the various ammunition commodities. In the interest of interservice support in ammunition supply and management, particularly in the exchange of reclassification actions because of malfunctions of common items, lot numbering was standardized in MIL-STD-1168.

a. Items with lot numbers dating back to 1944 are still in stock and acceptable for use after minor maintenance. Expenditures of ordnance from 1944 to date have reduced many older lots to remnant quantities. By 1978 all naval activities engaged in ordnance procurement or production complied with MIL-STD-1168. Phaseout of the old style lot numbers by attrition and conversion during major maintenance is a long-term process. Management and control of ordnance will require backup data and an understanding of both systems.

b. U.S. Navy Old Style Lots.

(1) For gun ammunition, fixed rounds, separated rounds (projectiles and propelling charges), and separate loading rounds (projectiles, bag propellant sections, and primers) the lot structure is as follows:

BE-244-C-68

(a) Prefix. A two-letter prefix is used for new ammunition. In the example, the letters BE are permanently assigned to a caliber and type of gun

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ammunition item of issue, in this case a 5"/38 Projectile AAC with a Mechanical Time Fuze (MTF) MK 50 or MK 349 installed. The use of a prefix as a part of gun ammunition lot numbers was considered necessary as a double check for nomenclature and DoD-IC/NALC (as in a message garble) and because gun ammunition items of issue were not assigned complete round Mark and Mod designations prior to 1978. The prefix is expanded to three letters by the addition of an "R" to signify a renovated lot (e.g., BER-1-H-74).

(b) Lot Sequence Number. A number from 1 to 9999 assigned in sequence for each lot produced. The numbers begin with 1 for the first lot produced in the year production begins. Lots started on or after 1 January of the next year revert back to lot 1.

(c) Manufacturer's Identification. A one, two, or three letter identification of the activity manufacturing or renovating the item. In the example, "C" is Crane Army Ammunition Activity (AAA).

(d) Calendar Year of Production/ Renovation. A two-digit number to identify the year in which production or renovation of the ammunition lot was started.

(2) Pyrotechnics, Demolition Items, and Fuzes. USN designed and produced pyrotechnics, demolition items, and gun ammunition fuzes generally are identified by a MK and MOD permitting the elimination of the prefix. These lot numbers are structured as follows:

206-CRA-69 or 206CRA-0769 or 206-CRA 07/69

(a) Lot Sequence Number. A number beginning with 1 when production starts. In some cases (in-house production) the first lot started after the new year reverts back to lot 1. In other cases (commercial manufacture), the sequence number continues for the length of the contract and add-on procurements. Numbering continued, provided there was no break in production.

(b) Manufacturer's Identification. The same as for gun ammunition.

(c) Calendar Year of Production. A two-digit number identifying year of production or a four-

digit number, with or without a slash, identifying the month and year of production.

c. U.S. Army Old Style Lots.

(1) The Navy uses a number of common items designed and procured by the Army. These are small arms ammunition items up to and including .50 caliber cartridges, grenades, antitank rockets, rockets, pyrotechnics, and demolition and mortar ammunition items. Army management of ammunition initially required only the control of the manufacturer's identification and sequential numbering of lots produced. Relative age as identified in Navy lots was maintained on master records in headquarters and available on ammunition data cards in the field. These early old style lots were structured containing these two elements, for example:

WCC-1 0950

(2) As production quantities increased with multiple production lines and follow-on reorders, an interfix number was added to ammunition lot numbers to group a series of lots into homogeneous lot strata. Interfix and sequence numbers are separated by a dash as follows:

COP-4-65

(3) The combination of two or more lots of complete rounds to form one lot, such as in linking complete rounds of .50 caliber cartridges, was handled by inserting a "-L" after the manufacturer's identification as follows:

RA-L-30-57 or LC-L-1-47

d. General Policies and Procedures for Navy and Army Old Style Lot Numbering Systems.

(1) Manufacturer's (including in-house production and renovation activities) identification symbols as listed in MIL-HDBK-1461A were used.

(2) The Navy and Army used a system of suffixing lot numbers. One or two letters were added after the last digit in the lot.

(a) U.S. Army. The suffix indicated that a major or minor maintenance action had been performed on the parent lot. When the assignment of the suffix "D" is directed by higher authority, for example, the maintenance activity must ensure that pre-

vious maintenance actions required by suffixes A, B, and C have been performed as well.

(b) U.S. Navy. A single letter suffix indicated that a major or minor maintenance action, not involving a primary component replacement, had taken place. The significance of the ABC sequence is the same as the Army system except, that a suffix "X" for X-ray examination is added to any other letter resulting in a two-letter suffix.

(c) U.S. Navy. For major maintenance involving ammunition breakdown and replacement of a component, the item was recertified at the same time. Because of the recertification, a letter "R" was added to the caliber and type two-letter prefix resulting in an entirely new lot number.

(d) Navy and Army. The use of dashes for spacing between lot number elements was required.

(e) Navy and Army. When maintenance had been performed as directed resulting in the application of a suffix, a new data card was prepared for each round processed (or the old data card is changed) by adding the suffix and a notation that the required maintenance had been performed. For example, the notation for the suffix "D" would be the fourth notation, following the notations covering maintenance actions pertaining to suffixes "A," "B," and "C."

e. New Style Lot Numbering System (MIL-STD-1168B). The standardization of ordnance lot numbering was based on the common requirements of the various lotting systems of manufacturer identification and sequential numbering of quantities of identical items. Essential service requirements of homogeneity grouping and age identification were added resulting in a 13 character basic lot number. Provisions were then added to annotate lots by letters to indicate a nonstandard lot number or a reworked basic lot. Standard lot numbers are constructed as follows:

CRA78K001-415A

(1) Characters 1-3. Manufacturer's identification as listed in MIL-HDBK-1461A. Manufacturers with one- or two-character codes will have remaining positions filled with dashes (e.g., P-- or PA-).

(2) Characters 4 & 5. A two-digit numeric code identifying the year of production (e.g., item produced in 1978 is coded 78).

(3) Character 6. A single alpha code signifying month production of the lot was initiated (e.g., A-January, B-February, etc.).

(4) Characters 7-9. Lot interfix number, sequentially from 001 thru 999.

(5) Character 10. Hyphen required for all standard lots. For nonstandard lots or lots requiring special codes the hyphen is replaced by an alpha (such as H-Hybrid Lot, M-Modified Lot, V-Overhauled Lot, see MIL-STD-1168A for a complete list of codes).

(6) Characters 11-13. Lot sequence number from 001 thru 999. (The next lot produced after lot 999 requires an interfix number change and reverts to 001).

(7) Character 14. A single alpha character suffix is added after the final position to signify the basic lot has been reworked. For lots reworked more than once, sequential alphas are assigned. The alphas E, I, O, or X shall not be used.

3.4.2.8 Ammunition Data Cards.

a. Ammunition data cards, prepared in accordance with MIL-STD-1168, are used to identify the composition of an ammunition lot when it is initially produced, or when it is modified, reworked, or regrouped. The ammunition data card is a record of the basic configuration of the ammunition lot, with reference to documents containing the configuration details. In addition to item nomenclature, NSN/DoDIC, drawing and specification numbers, lot number, manufacturer/loading activity, and quantity and date of production, data cards identify all primary components by manufacturer, lot number, and quantity. It becomes a historical record when the ammunition lot is reworked by replacement of components, indicating dates of renovations, new components, and original lot number for complete traceability.

b. Data cards contain the complete detailed lot identification of the ammunition item and its lot history. They are kept up to date at a central repository at the JMC for all SMCA-assigned ammunition items. In some cases a copy of the data card is found in the waterproof protective cap of each projectile, in cartridge and propelling charge tanks, and in packing

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containers of multipack items. There is, however, no longer a Navy requirement for a data card to accompany each ammunition item.

c. Historically, Ammunition Data Cards were prepared on DD form 1650 made of 5x8 inch commercial manila tag board or equivalent. More recently ammunition data cards are prepared using a government furnished Ammunition Data Card Program (ADCP), developed by JMC. An 8.5 by 11 inch print-out is used for hard copy distribution. The central repository of ammunition data cards located at the JMC has the information loaded in a computer database. A duplicate of the data card program with enhanced search and print capabilities is available on Conventional Ordnance Resource Portal (CORP) website.

3.4.3 Configuration Control. Configuration control is the process to manage preparation, justification, evaluation, coordination, disposition and implementation of proposed engineering changes and deviations to effected Configuration Items (CIs) and baselined configuration documentation. Configuration control continues throughout the life cycle of the CI.

3.4.3.1 Deviations. MIL-HDBK-61A and Program Office policy for Configuration Management (CM) provides guidance on procedures for processing requests for deviations. The handbook defines a deviation as:

a. A specific written authorization, to depart from a particular requirement(s) of an item's current approved configuration documentation for a specific number of units or a specific period of time. (A deviation differs from an engineering change in that an approved engineering change requires corresponding revision of the item's current approved configuration documentation, whereas a deviation does not).

Deviations represent temporary or limited departures from baseline requirements or characteristics in the documentation. Deviation request are classified as critical, major, or minor based on the classification of the defect and must be proven as justified and necessary by the contractor before being granted. No deviation (critical deviation) having an adverse effect on safety is approved. If a proposed deviation is recurrent (i.e., a repetition or extension of a previously authorized departure from a requirement), it is generally viewed as evidence that there is either a deficiency in the design documentation or in the practices of the manufacturer. If so, review is made by the AEA

to determine the disposition of the contractor's request for deviation. If appropriate, the AEA may recommend that corrective measures be taken (e.g., that an Engineering Change Proposal (ECP) be prepared).

3.4.3.2 Request Processing.

a. Deviation content requirements must be specified in applicable contract requirements including the Contract Data Requirements List (CDRL)/DD1423 and Data Item Description (DID) of the contract. In general the contractor may use the following formats for requesting deviations:

- (1) DD Form 1694, Request for Deviation.
- (2) Contractor design.

b. The contractor submits all critical, major, and minor deviation requests to the procuring activity (JMC or Navy procuring activity) via the CAO, who may add comments and recommendations. Copies are forwarded concurrently to the cognizant DA, the AEA, and Navy Liaison (NVLNO) for SMCA procured items.

c. Each request for a deviation is reviewed by the NAVSEA engineering agents designated by the Program Manager (PM). The AEA is the action officer for contractor submitted deviations and classifies the defect/deviation relating to in-production ammunition items. The cognizant DA reviews the contractor's request for impact on design, performance, safety, producibility, and interfaces, and submits relevant comments and recommendations to the AEA. After additional review, that includes consideration of factors such as maintainability and life cycle costs, the AEA may approve or reject minor deviations. Those that are classified major or critical are forwarded for final approval or rejection by the PM.

d. Deviations for items used by the Navy, but developed by another Service, will be coordinated with the Navy by the JMC. In such cases, the JMC retains approval authority; however, the Navy can refuse to accept material covered by an JMC approved deviation with which they do not concur (would adversely affect Navy safety/performance).

e. A complete record for Navy developed items is maintained in ACMDS covering all waiver and deviation request and actions. It is cross referenced to permit identification by contract, part number, and type of item. This file is used to facilitate the review of incoming requests and to audit corrective actions.

3.4.3.3 Engineering Change Proposals (ECPs).

a. An essential feature of configuration management is change approval, which complements the inherent change potential of complex items with the necessary responsiveness in correcting deficiencies or instituting enhancements. The events in the change approval process must operate as coherent elements within the centralized configuration management system (i.e., ACMDS). Engineering and functional requirements of an ammunition item are strictly defined by a technically qualified team prior to its procurement. Therefore, an in-depth technical review is necessary for those changes made during production. The evaluation of each proposed change must consider all the factors of that change, such as design performance, costs, impact on delivery schedules, operational effectiveness, maintainability, logistics, and training. The evaluation of proposed changes also includes the consideration of the cost benefits of retrofitting in-stock and in-production assets versus operating and maintaining multi-configurations of the item.

b. DoD 5160.65-M emphasizes that the Navy retains responsibility for the overall configuration management and control of SMCA-assigned ammunition items developed by the Navy. This gives the PM the final authority over changes to items developed by NAVSEA. The JMC has the responsibility to provide comments to the AEA concerning the potential impact of the Navy's approval or disapproval of contractor-initiated ECPs. Information and recommendations by the JMC relate to the impact of proposed changes with respect to costs and scheduled deliveries, or to future maintenance within the wholesale inventory. On Joint Service usage items, all requiring Services are provided the opportunity to accept or reject change proposals for specified applications. Technical exceptions and unique Service requirements are reconciled among the Services. During production, the JMC participates in the configuration control responsibility by interfacing with the Services in evaluating Class I actions, which include urgent ECPs, emergency ECPs, and routine ECPs during current SMCA procurement contracts, Class II actions, and Configuration Management of jointly used ammunition items regardless of procurement activity. Where wholesale ammunition inventories are affected by a proposed change, the JMC is provided sufficient visibility and data to ascertain impact if the proposed changes are incorporated.

c. Engineering changes are categorized in MIL-HDBK-61 as a Class I engineering change when one or more of the factors listed below is affected.

(1) The Functional or Allocated Configuration Documentation (FCD or ACD), once established, is affected to the extent that any of the following requirements would be outside specified limits or specified tolerances:

- (a) Performance.
- (b) Reliability, maintainability or survivability.
- (c) Weight, balance, or moment of inertia.
- (d) Interface characteristics.
- (e) Electromagnetic characteristics.
- (f) Other technical requirements in the specifications.

NOTE

Minor clarifications and corrections to FCD or ACD shall be made only as an incidental part of the next Class I ECP and accompanying Specification Change Notice (SCN) or Notice Of Revision (NOR), unless otherwise directed by the AEA.

(2) A change to the TDP, once established, will affect the FCD or ACD or will impact one or more of the following:

- (a) Government Furnished Equipment (GFE).
- (b) Safety.
- (c) Compatibility or specified in interoperability with interfacing CIs, support equipment or support software, spares, trainers or training devices/equipment/software.
- (d) Configuration to the extent that retrofit action is required.
- (e) Delivered operation and maintenance manuals for which adequate change/revision funding is not provided in existing contracts.

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(f) Preset adjustments or schedules affecting operating limits or performance to such extent assignment of a new identification number is required.

(g) Interchangeability, substitutability, or replaceability as applied to CIs, and to all sub-assemblies and parts except the pieces and parts of non-repairable sub-assemblies.

(h) Sources of CIs or repairable items at any level defined by source-control drawings.

(i) Skills, manning, training, biomedical factors, or human-engineering design:

(3) Any of the following contractual factors.

(a) Cost to the Government including incentives and fees.

(b) Contract guarantees or warranties.

(c) Contractual deliveries.

(d) Scheduled contract milestones.

d. Engineering changes are categorized in MIL-HDBK-61A as a Class II when it does not fall within the above definition of a Class I engineering change. Examples of Class II engineering changes are:

(1) Changes in documentation only (e.g., correction of errors, addition of clarifying notes or views).

(2) Minor changes in hardware (e.g., substitution of an alternate item) which do not affect form, fit, or function.

e. All ammunition ECPs are reviewed by an in-service Configuration Control Board (CCB) chaired by the AEA. (Most ammunition changes are processed by the CCB without the necessity of formally convening the board.) The AEA coordinates the following review actions:

(1) All ECPs are reviewed by the cognizant DA and the AEA.

(2) Class I ECPs are forwarded for additional review and approval by the PM.

(3) ECPs affecting interface with external systems are reviewed by the cognizant systems manager.

f. Original ECPs with rationale and supporting data are submitted directly to the cognizant DA with information copies to the PM, AEA, and to the cognizant complete round DA. The DA's responsibility is to classify and review the ECPs based on performance, design characteristics, safety considerations, and logistics support implications. This review is performed with benefit of the recommendations and data provided by the complete round DA.

g. The cognizant DA has the authority to originate ECPs and to approve or disapprove those originated elsewhere. The ECPs are then submitted to the AEA with supporting engineering data and rationale. Since ECPs can result in a change to technical documents, drawings, and the ADL, etc., the cognizant DA may prepare a NOR for submission to the AEA with approved ECPs. The NOR is a form for proposing revisions to a drawing, parts lists, and other technical and engineering documents.

h. Upon receipt of an approved ECP from the DA or PM requiring a revision to procurement documentation, the AEA evaluates the relevance of the engineering changes to current and planned procurements and approves or disapproves the NOR prepared by the DA. An approved NOR is promulgated to notify users that the documentation has been revised.

i. The activity having custody of the master technical documents pertaining to the approved NOR, revises the documents and makes an electronic image available for inclusion in the AEA's master documentation files.

j. The AEA establishes a record of all relevant ECP and NOR data in the ACMDS.

k. The AEA ensures that the SMCA is forwarded updated or modified PDPs prior to finalizing ECP and NOR actions.

3.4.4 Configuration Status Accounting (CSA). The purpose of CSA is to ensure accurate identification of each CI and delivered unit so that the necessary logistics support elements can be correctly programmed and made available in time to support the CI. An adequate and accurate CSA system will enhance the program and functional manager's capabilities to identify, produce, inspect, deliver, operate,

maintain, repair, and refurbish, etc., CIs in a timely, efficient, and economical manner in satisfying their assigned responsibilities. For surface ammunition, ACMDS fulfills this function.

3.4.4.1 CSA Requirements.

a. Identify the current approved configuration documentation and identification number associated with each CI.

b. Record and report the status of proposed engineering changes from initiation to final approval/contractual implementation.

c. Record and report the results of configuration audits to include the status and final disposition of identified discrepancies.

d. Record and report the status of all critical and major requests for deviations and waivers which affect the configuration of a CI.

e. Record and report implementation status of authorized changes.

f. Provide the traceability of all changes from the original baseline configuration documentation of each CI.

g. Report the effectivity and installation status of configuration changes to all CIs at all locations.

3.4.4.2 Configuration Management Documents. ACMDS will manage the following documents:

- a. Automated Data Lists.
- b. Automated Data Lists - Change Notices.
- c. Automated Data Lists - Notice of Revisions.
- d. Engineering Change Proposals.
- e. Notice of Revisions.
- f. Waivers.
- g. Deviations.
- h. Ammunition Data Cards.
- i. Depot Maintenance Work Requirements.
- j. Contracts.

k. MIPRs/Purchase Orders/Work Requests.

l. Drawings.

m. Specifications/Standards.

3.4.4.3 ACMDS Computer and Connectivity. The ACMDS can be accessed from within or without NSWCDIV Crane via the CORP website. ACMDS utilizes a relational database management system, which enables the surface ammunition DA/AEA/ISEA to communicate with the following systems containing configuration data.

a. Lot Data Card System. Complete OSC lot data card system.

b. Document Imaging System. General document storage system.

c. Procurement Status System. Holds data on all surface ammunition procurements.

d. Raster Image, Storage, Conversion, and Retrieval System (RISCRS). Drawing management system.

e. Communications with these systems enable those involved in configuration management to do the following:

(1) View ammunition lot data cards that are linked to ADLs in ACMDS.

(2) Call up any scanned document that is referenced in ACMDS, such as Contracts, ECPs, Waivers, Deviations, ADLs, NORS, MIPRs, etc.

(3) View drawings that are managed in ACMDS from the RISCR system.

3.4.4.4 ACMDS Reports. ACMDS will provide a variety of canned and ad-hoc reports to all ACMDS query users.

- a. ADL Listings.
- b. Items Used on ADL Listings.
- c. Contract Listings.
- d. ECP/Waiver/Deviation Listings.
- e. NOR Listings.
- f. MIPR Listings.

- g. Specification/Standards Listings.
- h. Drawing Listings.
- i. Items Referenced on Drawing Listings.
- j. Depot Maintenance Work Requirements (DMWR) Listings.

The above reports make up the majority of the ACMDS reports, but are not the only reports that ACMDS can provide. ACMDS has the capability to allow the user to create reports tailored to whatever parameters are required at the time.

3.4.5 Configuration Audits. As defined in MIL-HDBK-61A, configuration audits are normally performed before establishing a Product Base Line (PBL) for the item. Configuration audits consist of the Functional Configuration Audit (FCA) and the Physical Configuration Audit (PCA).

3.4.5.1 Functional Configuration Audit. An FCA shall be conducted for each configuration item for which a separate development or requirements specification has been baselined, except as otherwise required by the contracts, and for the overall system, if required by the contract. The objective of the FCA will be to verify the CI's and system's performance against its approved configuration documentation. Test data for the FCA shall be that collected from the test of the configuration of the item that is to be formally accepted or released for production (prototype or preproduction article). If a prototype or preproduction article is not produced, the test data shall be collected from test of the first production article. Subject to prior Government approval, the FCA for complex items may be conducted in increments. In such cases, a final FCA may be conducted to ensure that all requirements of the FCA have been satisfied. In cases where item verification can be completely determined only after system integration and testing, the final FCA shall be conducted using the results of these tests.

3.4.5.2 Physical Configuration Audit (PCA). The PCA shall be the formal examination of the as-built configuration of a CI against its design documentation. The PCA for a CI shall not be started unless the FCA for the CI has already been accomplished or is being accomplished concurrent with the PCA. After successful completion of the audit and the establishment of a PBL, all subsequent changes are processed by formal engineering change actions. The PCA also determines

that the acceptance testing requirements prescribed by the documentation are adequate for acceptance of production units of a CI by quality assurance activities. The PCA includes a detailed audit of engineering drawings, specifications, technical data, and tests utilized in production of CIs. The PCA shall include an audit of the released engineering documentation and quality control records to ensure the as-built or as-coded configuration is reflected by this documentation.

3.4.5.3 Quality Deficiencies. Full-scale production begins after the approval of the PBL for an ammunition item, the award of the production contract, and the completion of the post-award survey. If quality deficiencies emerge during production, and delivery lots are rejected, the Navy may request the procuring activity to authorize an on-site configuration audit. The on-site audit is scheduled and coordinated by the AEA. The DA, Contract Administration Officer (CAO), and other activities participate as required.

3.4.5.4 Additional Configuration Audits. Additional audits may be performed during production for selected changes to the item's configuration documentation or when contractors are changed. Broad policies governing configuration audits for SMCA procured items are set forth in DoD 5160.65-M. This document states that a PCA may be conducted at the contractor's facilities when requested by the developing Service. (The audit may be performed in coordination with the requiring Service when the requiring Service is other than the developing Service.) Also, an FCA may be conducted by witnessing functional tests and reviewing test data at the contractor's facilities. The CAO must respond to such requests for audit and provide access to the contractor's software (production procedures, quality assurance procedures, process control data, etc.) and hardware employed in connection with the item being audited as allowed for in the contract.

3.4.5.5 Audit Report and Deficiency Correction. Upon the completion of each audit, a report of findings is submitted to the procuring activity by the AEA. Deficiencies identified during PCAs and FCAs require corrective action within 30 days. If these timeframes cannot be met, the procuring activity will advise the AEA accordingly, citing the reasons for delay.

3.4.5.6 Audit Recording. In all matters pertaining to configuration control and management, the results of the contractor audit and the corrective action taken are recorded in Document Imaging.

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CHAPTER 3.5

Product Improvement Program (PIP)

3.5.1 General. As explained in the DoD Financial Management Regulation, DoD 70001.14R, Product Improvement Programs (PIPs) within the current performance envelopment on systems in production shall be funded with procurement appropriations. For 2T conventional ammunition that is the Procurement of Ammunition Navy and Marine Corps (PAN-MC) appropriation. As part of their on-going ammunition engineering efforts Engineering Agents (EAs) may identify design deficiencies, or new technologies, which would reduce life cycle costs, improve safety, increase reliability, improve producibility, etc. The annual review and selection process performed by the Program Manager (PM) for new PIPs begins with the EA submitting a PIP abstract.

3.5.2 PIP Abstract. PIP abstracts for proposed PIPs are forwarded to the PM by 1 April each year as part of the annual update of the three year plan for engineering support. The format of the abstract is directed by the Program Manager (PM). The PM will review the submitted PIP abstracts, select those that should be developed into a formal plan, and assign a PIP number by 1 May. PIP abstracts assigned a number are to be uploaded to the Conventional Ordnance Resource Portal (CORP) website.

3.5.3 PIP Plan.

3.5.3.1 Plan Contents. A PIP Plan is developed for each of the selected PIPs by the EA, as assigned by the PM. Each PIP Plan must address the following as directed by the PM:

- a. PIP objective. Including clearly defined goals with specified thresholds and objectives.
- b. Technical approach.
- c. Breadth of Application (relevant calibers/components).
- d. Plan Of Action and Milestones (POA&M) (Microsoft Project Submission).
- e. Funding requirements.

f. Test plan.

g. Ammunition expenditure requirements.

3.5.3.2 Design Agent (DA) Meeting. Each June the PM will host a DA Meeting. The agenda includes EA's briefing PIP proposal abstracts, selected PIP plans and status of ongoing PIPs. The P&G paper provides additional guidance regarding preparation of PIP plans. All elements of the plan will be presented and discussed during the meeting. The PM will negotiate with the EAs on the fine details of the selected PIPs in July.

3.5.3.3 Finalized PIP Plans. The EAs will submit finalized PIP plans for PM approval by 20 August. The PM will identify funded PIPs each September in the appropriate engineering support funding letter.

3.5.3.4 Plan of Action & Milestones (POA&M). Microsoft Project has been selected as the common software for illustrating the POA&M shall show schedules, milestones and costs by major tasks at a minimum. The schedule will be saved as a Tracking Gantt with a baseline depicting the initial schedule of the PIP.

3.5.4 Reports and Reviews.

3.5.4.1 Quarterly Reports. Quarterly reports will be submitted on all PIPs to coincide with production engineering and financial status reports. Reports include:

- a. An updated POA&M.
- b. Financial status at the funding document level.
- c. Narrative summarizing technical accomplishments and departures from baseline schedule and costs.
- d. Earned value metrics including percent schedule variance and percent cost variance.

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The POA&M, narrative summary and earned value metrics will be uploaded to the Conventional Ordnance Resource Portal engineering support website. Financial status will be reported as part of the SEA Task quarterly financial report by the 15th of the month following the end of each quarter.

3.5.4.2 Program Reviews. Program reviews will be

conducted by the PM as required.

3.5.5 Closure. Each PIP will be officially closed upon completion or cancellation by a letter from the EA PIP manager to the PM by uploading it on to the CORP website. The letter shall include a final report and be submitted within six months of PIP completion or cancellation.

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CHAPTER 4.1

In-Service Engineering

4.1.1 General.

4.1.1.1 Engineering Activities. In-Service Engineering Agent responsibilities normally involve the same engineering activities within the NAVSEA Warfare Center Divisions that provided the acquisition engineering support. Functions include Design Agent (DA), Acquisition Engineering Agent (AEA), In-Service Engineering Agent (ISEA), and Quality Evaluation Coordinator (QEC).

4.1.1.2 Perspective. The primary focus of in-service engineering management is to build, defend, and execute a balanced program of proactive and reactive measures to best achieve/maintain the Ready for Issue Objective (RFIO) for each ammunition item, within the fiscal constraints applied by the Navy budget.

4.1.1.3 Organizational Relationships. Figure 4-1-1 identifies the organizations involved in the in-service management processes and their relationship to each other.

4.1.2 Engineering Responsibilities. Annually, the Program Manager (PM) assigns engineering responsibilities for specific ammunition items to specific commands in a tasking statement in the Naval Sea Systems community known as a SEA TASK. This tasking statement identifies the engineering task responsibilities, the ordnance items to which the tasks apply, and any special reporting requirements. This tasking statement is referenced in the annual funding document to specify the authorized use(s) of the funds being provided. Recurring engineering responsibilities are listed under the appropriate title.

4.1.2.1 Design Agent. DA engineering support responsibilities identified in Chapter 3.2, subparagraph 3.2.2.1 of this Volume, continue throughout the life cycle of the assigned ammunition item.

a. Specific in-service engineering responsibilities:

(1) Conduct malfunction investigations, when assigned by the PM, or provide engineering and test

support for investigations assigned to other DAs, ISEAs, or the QEA as requested.

(2) Determine corrective design changes for future production and configuration changes to correct existing stocks, when malfunctions are attributed to the basic design.

(3) Review and provide engineering comments, recommendations and justification for deviations affecting safety or design configuration.

(4) Prepare and update Technical Data Packages (TDPs) required for in-service ammunition maintenance.

b. DAs providing in-service engineering support are funded with Operation and Maintenance Navy (O&MN) funds programmed annually based on projected requirements. Upon Congressional approval of the budget, funds are allocated by the PM to each DA on Work Request (WR) documents.

4.1.2.2 Acquisition Engineering Agent (AEA). The AEA is the primary engineering activity for ammunition post Milestone C (Approved for Full Production (AFP)). General responsibilities include identifying and controlling ammunition item configuration, and maintaining safety and quality during production. AEAs provide configuration control and production engineering support for manufacturing, loading, and assembly.

4.1.2.3 In-Service Engineering Agent (ISEA). After entry of the ammunition item into the active inventory, the AEA normally becomes the ISEA, continuing the AEA responsibilities identified in Chapter 3.2 of this volume for any further procurements.

a. The ISEA takes on the following responsibilities for the assets in inventory:

(1) Monitor activity work performance relative to technical documentation, productivity, and cost for all in-service functions.

(2) Maintenance Planning and Execution.

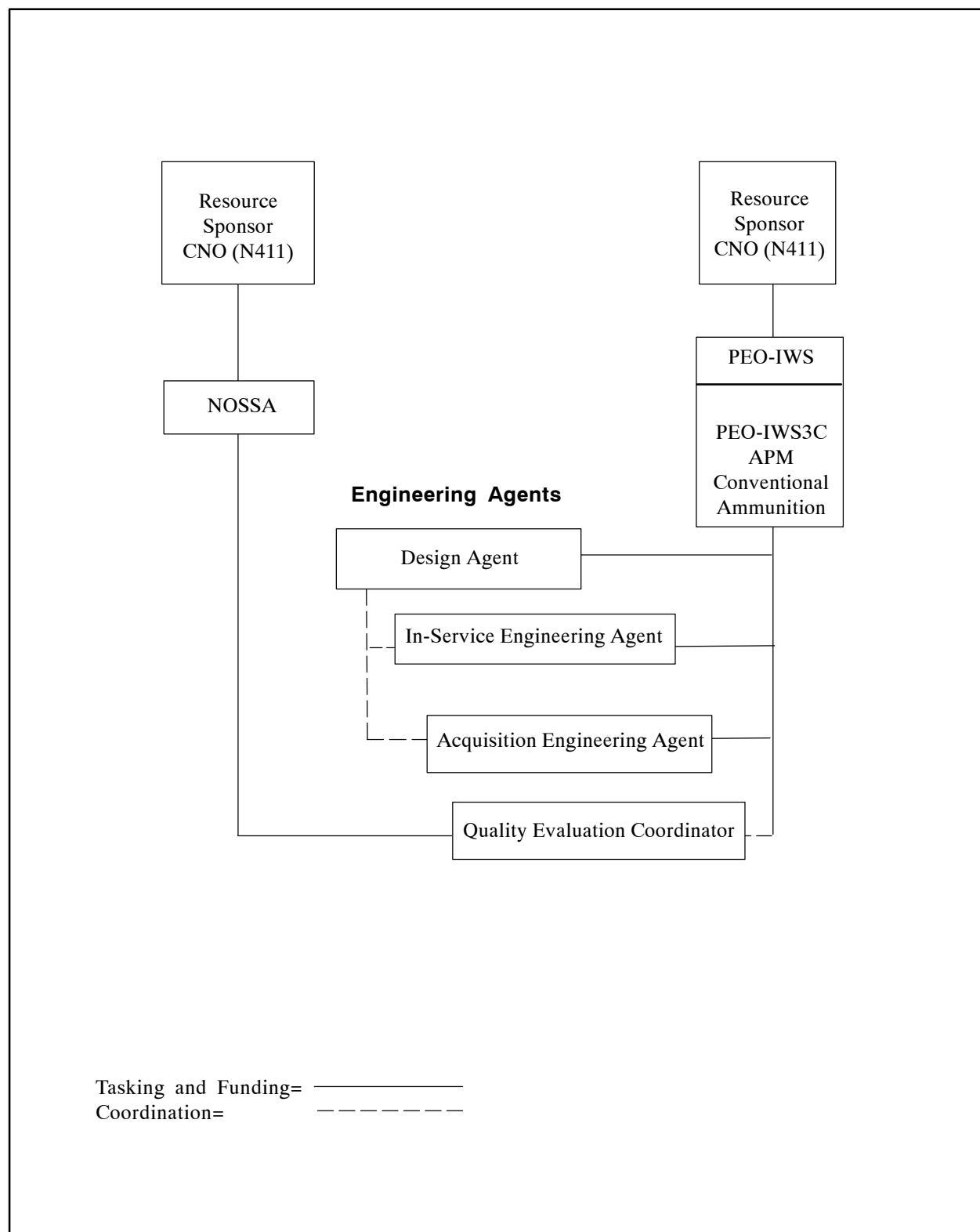


Figure 4-1-1. In-Service Engineering Organizational Relationships

(a) Prepare and update the 5 year Depot Maintenance Plan. Determines asses readiness postures and provides maintenance priorities for maintenance processing of assigned ammunition items.

(b) Provides engineering and Technical support to activities engaged in maintenance of assigned ammunition items.

(c) Coordinate with NOLSC-AMMO to have maintenance assets moved to the appropriate maintenance activity.

(d) Provide technical documentation necessary to support the items on the maintenance plan, e.g. Depot Maintenance Work Requirement (DMWR) and Automated Data List (ADL).

(e) Approve all lots of ammunition prior to maintenance or modification of Navy and SMCA activities.

(f) Perform maintenance line assessments and certifications as required.

(g) Provide in-process engineering support as necessary.

(h) Monitor maintenance activity work performance relative to technical documentation, productivity, and cost.

(i) Monitor activity compliance with NAVSEA safety policies for maintenance operations involving explosives and other hazardous material.

(3) Single Manager for Conventional Ammunition (SMCA) Interface.

(a) Coordinate 2T cog maintenance needs with the SMCA. Provide necessary inter-service maintenance exhibits to the SMCA and participate in all applicable workload/maintenance meetings.

(b) Represent NAVSEA on the Joint Ordnance Commanders Group (JOCG) Maintenance subgroup.

(4) Quality Evaluation (QE).

(a) Maintain liaison with the NAVSEA QE coordinator, test agent and test activities.

(b) Provide technical documentation and logistical information necessary to support the 2T cog ammunition QE efforts.

(c) Provide PEO-IWS3C/PM4 with a rationale sheet for each QE candidate on the QE list.

(d) Review QE test plans and reports and make recommendations for corrective actions to PEO-IWS3C/PM4.

(e) Document baseline QE parameter requirements (e.g. parameters that degrade with time) in coordination with the DA/AEA and QE agents.

(f) Ensure baseline QE requirements are incorporated into end item procurement acceptance procedures in coordination with DA/AEA.

(g) Verify that every lot of 2T cog ammunition produced is assigned appropriate component stratum(s) and the test data (lot acceptance, MAERU, and special test) is input into the centralized SLAMS database. Program and maintain SLAMS to predict ammunition degradation trends, which will aid in developing product improvement programs, maintenance plans, ammunition classification, priorities for issue/use, and QE candidates.

(5) Technical Manuals & Configuration Management.

(a) Coordinate the maintenance/update of all 2T cog technical manuals and provide technical support in accordance NAVSEAINST 4160.3A, Technical Manual Management Program.

(b) Provide updates to NAVSUP P-805/7 to ensure 2T cog ammunition can be properly supported during the RSS&I process.

(c) Maintain configuration identification and control of all in-service assets by reviewing and documenting deviations, surveillance reports, quality deficiency reports, maintenance data cards and SOPs.

(6) For Ammunition Malfunctions reported by a Conventional Ordnance Deficiency Report (CODR)/Explosive Mishap Report (EMR).

(a) Coordinate analysis with engineering agents (DA, AEA, SIA, QE) on all reported incidents.

(b) Provide PEO-IWS3C/PM4 with a written assessment of all reported ammunition related incidents.

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(c) Assist PEO-IWS3C/PM4 in the coordination of any formal investigation of Fleet malfunctions as well as the implementation of corrective actions identified as a result of the malfunction investigations or incident assessments.

(d) Maintain an automated historical database for all CODR/EMR, mishaps, malfunction investigations and related correspondence.

(e) Review all other available reports (e.g. CASREPS (Casualty Report), firing exercise reports, quality deficiency reports, quality evaluation reports, etc.) for ammunition design, production or maintenance related problems and initiate corrective action with the DA/AEA and PM4.

(7) NAR/OHF/AIN support.

(a) Review all available data and make serviceability recommendations to support the issuance of Notice of Ammunition Reclassifications (NARs) and Over Head Fire (OHF) restrictions.

(b) Review all Ammunition Information Notices (AIN) issued by other Services or prepared by other engineering agents for applicability to 2T cog ammunition and provide recommendations to PEO-IWS3C/PM4. Prepare potential AINs for program office review when necessary.

(8) Perform ammunition management on the current in-service inventory to identify assets that should be priority issue and to assure proper classification of all in-service assets.

(9) Provide analytical support of requirements computations and inventory data, and assist PEO-IWS3C/PM4 in the annual Stratification and Cross-leveling program's including economic retention analysis.

(10) Analyze and provide recommendations on the service allowances (30,000 Series) for 2T cog ammunition used by all Navy ships and units worldwide.

(11) Consolidate the Non-Combat Expenditure Requirements (NCER) for the NAVSEASYS COM major claimant for PEO-IWS3C/PM4 submission; allocate the Non-Combat Expenditure Allocations, monitor expenditures for all sub-claimants and report major deviations to PEO-IWS3C/PM4. Assist PEO-IWS3C/PM4 with analysis of asset availability in support of the NCER OPNAV Sponsor Review in 2T cog ammunition.

4.1.2.4 Quality Evaluation Coordinator (QEC). The QEC provides a system focus for the Quality Evaluation (QE) Program. The QEC functions at the weapon system or family level to plan, coordinate, and oversee QE for assigned systems.

CHAPTER 4.2

Quality Evaluation / Surveillance Programs

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CHAPTER 4.2

Quality Evaluation / Surveillance Programs

4.2.1 General. Quality Evaluation (QE) Programs focus on the health of the in-service ordnance stockpile. The quality, safety, and reliability information derived from these programs assists the Program Executive Officer/Program Managers (PEO/PM) and technical managers in maintaining safe and high quality stocks for use by the Fleet.

4.2.2 Quality Evaluation (QE) Programs. The QE program policy is defined in OPNAVINST 4850.1B and applies to all in-service non-nuclear ordnance under COMNAVAIRSYSCOM and COMNAVSEA-SYSCOM cognizance. This includes those ordnance items procured with a warranty contract.

4.2.2.1 Background. Ordnance typically degrades in safety, quality, reliability, and performance characteristics over time. The degradation is generally caused by changes in chemical and physical properties, brought on by logistic actions and from the effects of storage and deployment. The primary goal of the program is to assure user safety and satisfaction with the ordnance provided to the Fleet. To do this, the QE program periodically evaluates the in-service characteristics to determine if any degradation has occurred. Further, the program projects service life for those ordnance items and components which degrade. The QE program reports serve as a basis for the PEOs/PMs and technical managers to take actions to ensure both ordnance safety and user satisfaction.

4.2.2.2 Purpose:

- a. Determine current condition of the ordnance stockpile by assessing safety, quality, reliability, maintainability, and performance.
- b. Identify and evaluate factors (including interfaces with combat systems) affecting the current condition of the stockpile or the stockpile-to-target sequence, including factors originating from design, assembly, maintenance, handling, storage, and deployment.

- c. Identify trends affecting the stockpile to predict the future condition of the ordnance stockpile and to predict service/shelf life.

- d. Monitor preventive or corrective actions and policies to determine the effect on safety, reliability, maintainability, and performance.

- e. Based on QE findings provide technically and statistically-based recommendations for stockpile retention, improvement, or disposal.

- f. Provide quality information to Navy POEs/PMs and technical managers responsible for developing, procuring, and maintaining ordnance so that they can use this experience gained to enhance product assurance.

4.2.2.3 SYSCOMs (e.g. NAVSEASYSCOM) and associated Ordnance PEO/PMs will establish a management structure for the execution of a QE program for their cognizant items, maximizing to the greatest extent possible support from the other SYSCOMs and Services by:

- a. Performing the budget and execution function to effectively execute their individual QE program plans.
- b. Coordinating and promulgating instructions, policies, procedures, and plans for their ordnance items.
- c. Establishing a QE management structure that most effectively and efficiently supports their ordnance items.
- d. Makes agent assignments for their ordnance items as appropriate in accordance with their established management structure.
- e. Approve an annual Quality Evaluation Program Plan (QEPP) for their ordnance items.
- f. Conduct periodic QE program progress reviews.

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g. Approve in coordination with necessary engineering agents, QE program test and evaluation criteria and performance assessment criteria.

h. Include test sample provisioning in acquisition and logistic support planning and budgeting to ensure quality evaluation sample requirements are met per the applicable Quality Evaluation Plan (QEP).

i. Determine initial estimated service life for ordnance and ordnance components which degrade.

j. Publish initial and revised ordnance service life expiration dates (weapons and CAD/PADs only).

k. Reviews and approves predictive model development efforts.

l. Ensure PEO/PM representation at the semi-annual QE review chaired by CNO (N411).

4.2.2.4 Naval Ordnance Safety and Security Activity (NOSSA), is technical authority for explosive safety and explosive material. Responsibilities include:

a. Assist the PMs by disseminating information on QE related issued, and upon request by the PMs, provide coordination in scheduling tests of similar items, organize QE conferences, and participate in QE planning and execution.

b. Manage, technically direct, and execute all life cycle responsibilities for the Navy and Marine Corps Quality Evaluation Technologies and Equipment (QETE) Program to support all Navy and Marine Corps conventional ordnance QE efforts including all budgeting and execution functions.

c. Ensure QE technologies, equipment, and processes are fully compatible and integrated with the Navy's Insensitive Munitions (IM) Program per OPNAVINST 8010.13C.

d. Participate in the semi-annual QE review.

e. Upon request from PEOs/PMs and technical managers provides support on QE related procedures and technology issues at forums, i.e. Joint Ordnance Commanders Group (JOCG), Department of Defense (DOD)/Department of Energy (DOE) Technical Coordinating Groups, Data Exchange Agreements, and Foreign Military Sales (FMS).

4.2.2.5 Quality Evaluation Coordinator (QEC). The QEC provides a system focus for the QE Program. The QEC establishes a QE Technical Agent (QETA) to provide a QE focus at the major component level to carry out the QE of assigned ammunition items. The QEC supports NOSSA and the PMs.

a. Specific QEC Engineering responsibilities in coordination with the appropriate QETA.

(1) Maintain a capability for the complete breakdown of assigned ammunition into their separate parts and perform a complete visual, electronic, sonic, or other examination.

(2) Establish a QE master plan of assigned ammunition to include Quality Evaluation Program Plans, and Quality Evaluation Item Test Plans, etc.

(3) Implement the periodic QE testing of ammunition items in accordance with the master plan.

(4) Provide recommendations to the QE Manager, the PMs and Appropriate AEA, DA, and ISEA for necessary actions based on QE results.

b. QETAs providing engineering support are funded for QE and testing with O&MN funds programmed annually based on projected requirements. Upon Congressional approval of the budget, funds are allocated by the QE Manager NOSSA to each QETA on Work Request documents.

4.2.2.6 Quality Evaluation Technical Agent Responsibilities. These are responsibilities typically executed below the PEO/PM but must be accomplished as part of QE. PEO/PM will assign these roles to technical agents in accordance with their established QE management structure. QE Technical Agent roles are further detailed as follows:

a. Provide overall system level coordination of QE efforts. The assigned agent interfaces with the PEO/PM/technical managers for QE issues including overall coordination of the approved budgets and schedules, work plans, and execution, program documentation, progress reports, and reviews. The agent is responsible for planning, testing evaluating and reporting for QE testing.

b. Ensures annual and multi-year plans and budgets are developed and submitted to the PEO/PM/technical managers for both in-service and acquisition phase items.

c. Plans and budgets for test costs including any disposal costs of test residuals.

d. Plans and submits budgets for the development/acquisition of test and evaluation technologies, equipments, models, simulations as necessary.

e. Provides yearly budget requirements to PEO/PM/technical managers for QE sample acquisition. Include breakdown requirements, sample identification, quantity and sample acquisition manager requirements.

f. Determines the appropriate means for execution of QE for each item to monitor the conditions of the inventory to establish aging trends of the critical characteristics of the test item. Select/develops, proofs out predictive models and analytical techniques to be used to evaluate QE test items.

g. Develops and maintains step-by-step test procedures and documentation for test items; coordinates development and changes with QEC, Engineering Agents and TAs.

h. Oversee sample acquisition process to assure timely receipt of test items. Provides NCEA requirements to cognizant major claimants to support test item requirements. Requisitions assets for testing and tracks delivery status.

i. Establishes, documents and participates in Test Readiness Review (TRR) processes. Conducts TRR prior to item testing and certifies test readiness. Maintains TRR documentation.

j. Review data from all test sources as it becomes available, analyze it, and provide summary of impact on system safety and reliability. Identifies all safety and critical performance issues to the PM immediately.

k. Explores and documents any QE related efforts by other services/users of QE item or similar items. Collect data for use in analysis as part of report/analysis process.

l. Coordinated review with appropriate engineering agents to determine adequacy of test and analysis dedocumentation, assessing test results, and review of test reports prior to forwarding reports to PEO/PM managers for review and subsequent action.

m. Submit test reports to the PEO/PM after review and coordination by in-service engineering agent, design agent and other technical agents and subject matter experts.

n. Submit periodic accomplishment reports to PEO/PM/technical manager.

o. Inputs test results to PEO/PMs quality evaluation databases for assigned ordnance.

p. Provides design, production, lot acceptance test, etc. data requirements to PM/technical manager for inclusion in procurement contracts.

4.2.2.7 Design, Acquisition, System Integration and In-Service Engineering Agent QE specific responsibilities: Roles and responsibilities include participation in development and maintenance of QE documentation, program planning and execution processes, integration of test item requirements and results and serving as a conduit for incorporating test item requirements and results into various technical group, program and design reviews. Roles are further detailed as follows:

a. Participate in QE planning and working groups.

b. Provide inputs and recommendations for test item candidates and test samples in support of annual and multi-year plans.

c. Provide data and information to support QE as necessary; data and information may include design and qualification reports, Engineering Change Proposals (ECPs), deviations, failure analysis reports, Failure Mode and Effects, Criticality Analysis (FMECA) reports, first article, acceptance, periodic production, maintenance and failure analysis data, the schedules for impending acquisition or design related test and Fleet exercises etc.

d. Provide QE program initial proposed inventory stratification and rationale.

e. Provide inputs and recommendations for test methods, critical characteristics, test parameters, evaluation criteria, operational and/or specification requirements.

f. Participate in the development and review of test documentation and processes.

g. Participate in TRRs as appropriate.

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h. Review and comment on test item test results.

i. Participate in development and proof out of predictive models.

j. Provide access to ordnance databases (maintenance, configuration management, etc.).

4.2.3 Predictive Model. Predictive models are used to project safety and reliability trends for QE test items. The Surveillance, Lot Acceptance, and Mobile Ammunition Evaluation and Reconditioning Unit (MAERU) System (SLAMS) Test Database is the predictive model utilized by PEO-IWS3C. SLAMS is an automated database specifically designed for maintaining quality data on surface ammunition. This database is maintained by the ISEA includes perfor-

mance, QE test, production acceptance, and MAERU data for 2T Cog ammunition. The purpose of SLAMS is to:

a. Store historical key parameter data with automated sort capabilities.

b. Provide a means to manage QE, Maintenance, MAERU, and procurement test data.

c. Conduct trend analysis by the engineering and quality evaluation communities.

d. Predict degradation trends to enhance ammunition management, procurement of replacement material, PIP actions, maintenance actions, and malfunction reviews.

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CHAPTER 4.3

Mobile Ammunition Evaluation and Reconditioning Unit (MAERU)

4.3.1 General.

4.3.1.1 Background. In the past, serviceability of ammunition stocks at overseas locations was determined by visual inspection, sampling, and return of samples to Continental United States (CONUS) for evaluation. Ammunition classified unserviceable as a result of inspection or evaluation was replaced and returned for maintenance. The length of time in a non-Ready For Issue (non-RFI) status pending evaluation or replacement, and the handling and transportation costs for return and maintenance, were excessive.

4.3.1.2 Purpose. The purpose of the Mobile Ammunition Evaluation and Reconditioning Unit (MAERU) is to reduce or eliminate the time lag between sampling and recertification as Ready For Issue (RFI), and reduce transportation and handling charges. MAERUs are formulated with the capability of performing in-place evaluation and on-site maintenance. MAERU services are available to area and storage site Commanders on a routine basis, or as specifically requested. They may be for separate evaluation or for combined evaluation and maintenance actions. MAERU operations are carried out with minimum disruption of the daily activities of the storage sites. They result in RFI certification of the entire storage site stockpile, less items that require Depot Level maintenance, which is beyond the MAERU capabilities, or are irreparable. MAERU services are also available, on a selective and reimbursable basis, for the evaluation and maintenance of similar munitions of U.S. origin in the possession of a foreign navy.

4.3.1.3 Schedule. MAERU teams shall visit the major Outside Continental United States (OCONUS) preposition sites on a three year cycle. The sites are classified by regional location. Sites are in the Mediterranean, Pacific and the Caribbean theaters.

4.3.2 Responsibilities.

4.3.2.1 Acquisition Program Manager (APM) (Program Executive Officer, Integrated Warfare Systems (PEO/IWS) Naval Gunnery Project Officer (IWS3C)

Conventional Ammunition Office at Naval Surface Warfare Center Division (NSWC DIV) Crane, IN).

a. Provides overall program guidance and policy direction for all phases of MAERU operations.

b. Approves three-year program plans and initiating budgeting submissions.

c. Exercises overall technical control of 2T Cog ammunition maintenance (NSWC DIV Crane exercises technical control of 2E Cog items in coordination with NAVAIR and cognizant maintenance engineering activities. 0T Cog items are coordinated with Marine Corps Systems Command (MARCORSYSCOM) Program Manager (PM), Ammunition and Marine Corps Program Division, Fallbrook, CA).

d. Provides the financial support required to administer, maintain, and operate the MAERU.

e. Issues work requests to NSWC DIV, Crane Detachment (Det.), Fallbrook, CA for MAERU operations and for overall administrative and logistics requirements.

f. Monitors with ISEA support, overall MAERU operations for the purpose of ensuring effective and efficient operation at overseas stocking points.

4.3.2.2 Naval Ordnance Safety and Security Activity (NOSSA), Indian Head, MD is responsible for providing overall guidance with respect to safety.

4.3.2.3 NSWC DIV Crane Det., Fallbrook, CA:

a. Provides administrative, logistic, and technical direction to the MAERU.

b. Submits a three-year program plan for MAERU operations to the PM six months prior to the beginning of each fiscal year. The plan must provide for operations including travel, per diem and overtime, components, equipment, tools, consumable supplies, and material requirements for MAERU operations.

c. Determines the need for scheduling and accomplishing pre-evaluation surveys. The survey will

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be preceded by obtaining lot-by-lot inventories of ammunition, and related components. The survey includes coordinating the planned effort with the Fleet logistics managers and the commands at the overseas storage locations. As a result of pre-evaluation surveys and associated surveillance studies, NSWCDIV, Crane Det. Fallbrook, CA determines the most feasible schedule and methods of evaluation and maintenance. An operational plan is developed for each of the storage activities to be serviced. The plan includes the general instructions for the operation of the unit and the specific sampling plan for each ammunition item to be evaluated and processed through a maintenance line.

d. Conducts an audit to ensure that work has been completed satisfactorily, adjustments have been made to the activity asset records, and the activity has all necessary data to submit inventory changes or adjustments.

e. Prepares and publishes a detailed summary for each activity. This lists the test results, maintenance actions accomplished, estimates of overall quality, information regarding inventory adjustments resulting from MAERU actions, evidence of deterioration, and recommendations for future MAERU actions. The summary is submitted to the appropriate Fleet logistics manager and PM within 90 days following the completion of the MAERU operations and audit.

4.3.2.4 Fleet Logistics Managers:

a. Forward requests for MAERU service to the PM.

b. Assist NSWCDIV Crane Det. Fallbrook, CA in establishing a schedule which will be compatible with storage activities and MAERU requirements.

c. Ensure that adequate logistics support services such as material handling, local transportation, equipment, maintenance facilities, and labor are available at each of the storage activities.

d. Ensure that the storage activities have completed action on the inventory adjustments which result from the MAERU actions.

4.3.2.5 Overseas Storage Activities:

a. Report ammunition assets, receipts and expenditures in accordance with current instructions.

Provide NSWCDIV Crane Det. Fallbrook, CA with a lot-by-lot inventory by storage location, date of receipt, and source, when requested.

b. Provide logistics support services such as material handling, local transportation, equipment, maintenance facilities, and labor required for MAERU operations, and provide for temporary storage of MAERU equipment and supplies prior to and following the MAERU deployment.

c. Request disposition instructions for Navy-owned material found to be unserviceable as a result of MAERU quality evaluation, and which is not repairable by MAERU. USMC PM will provide disposition instructions for OT Cog items.

d. Reflect Condition Code (CC) and inventory adjustments in station records occurring as a result of MAERU operations.

4.3.3 Personnel Composition.

4.3.3.1 Team Composition. A MAERU, headed by a Technician-In-Charge (TIC), can consist of two teams. One team consists of 4 to 6 quality evaluation specialists. The other team consists of 6 to 9 ordnance workers. Test equipment and ammunition peculiar equipment for disassembly and assembly accompanies the two teams as required.

4.3.3.2 Personnel Roster. NSWCDIV Crane Det. Fallbrook, CA maintains a roster of designated and eligible personnel available for duty with the MAERU. This includes personnel qualified for duty as TIC and Senior Quality Evaluation Technician (Senior QET). Selection of personnel from other activities is subject to the concurrence of the employee's home station, unless such duty is a condition of employment. TICs are usually quality evaluation oriented personnel.

4.3.3.3 Technician-In-Charge (TIC). A TIC, as an official representative of the Commanding Officer, NSWCDIV Crane Det. Fallbrook, CA is in charge of the evaluation and maintenance (reconditioning) phases of the MAERU operation. In the event that only the evaluation team is deployed, the Senior QET shall assume the listed duties of the TIC.

a. Refers directly to NSWCDIV Crane Det. Fallbrook, CA any operational or personnel matters which cannot be resolved on-site by the TIC.

b. Takes necessary precautions and mandatory measures to ensure that MAERU personnel are prop-

erly instructed and informed of the policies and regulations regarding security, restrictions, and curtailment of off station activities applicable to noncitizens of the host country.

c. Submits requests relating to quality evaluation, maintenance equipment, and materials requirements to NSWCDIV Crane Det. Fallbrook, CA.

d. Provides NSWCDIV Crane Det. Fallbrook, CA the storage site Commander, and the Fleet Logistics Commander with reports of work progress in MAERU operations when units are active. These letter progress reports will adequately describe all action taken or contemplated by the MAERU in preparing and planning the schedules of operation, assembly, status of work completed, and estimated date of completion of MAERU operations.

e. Takes such steps as may be necessary to ensure the acceptable quality of reconditioned ammunition items.

f. The TIC is responsible for an in/out brief with the activity Commander/Ordnance Officer and an out brief with the area Commander.

4.3.4 Equipment.

4.3.4.1 Containers. Each set of equipment is contained in two standard commercial ocean-going cargo containers. One container is outfitted with test and evaluation equipment (such as spin-test machines and primer-firing equipment). The other has maintenance equipment such as a fuze-removal machine and cartridge pull-apart equipment. Personnel and equipment associated with each team are capable of independent operation. When evaluation is completed, the evaluation team moves on to the next storage activity. The maintenance team completes the task at the first activity and then joins the evaluation team.

4.3.4.2 Container Rotation. Two complete sets of MAERU equipped containers exist. On completion of a deployment, the containers are returned to NSWCDIV Crane Det. Fallbrook, CA for replacement of supplies and reconditioning or upgrading as necessary, and the standby set is deployed. The standby set is available on-call for emergency deployment.

4.3.5 Deployment.

4.3.5.1 Inventory Request. In preparation for a routine deployment, NSWCDIV Crane Det. Fallbrook, CA

requests by letter a lot-by-lot inventory from each storage activity. Activities with a low turnover rate of ammunition may be contacted 6 to 9 months in advance of projected deployment. Activities with a high turnover rate are contacted 30 to 60 days prior to deployment to ensure that inventories are current.

4.3.5.2 Pre-evaluation Survey and Planning Visit. A pre-evaluation survey and planning visit is made to each storage site to accomplish the following:

a. Coordinate the forthcoming MAERU operations at each site.

b. Determine and arrive at an agreed to schedule for each activity and for the cycle.

c. Verify significant inventory changes from the previous deployment and discuss major rework requirements.

d. Arrange for support of the MAERU at each activity by local handling personnel, material handling equipment, transportation, work area or facility, and supplies.

4.3.5.3 Team Preparation. Upon receipt of a current year work request from the PM for MAERU support, NSWCDIV Crane Det. Fallbrook, CA accomplishes the following:

a. Selects team members, by message, 30 to 60 days prior to deployment.

b. Conducts an indoctrination briefing for the TIC assigned to MAERU operations with respect to responsibilities in foreign countries. The TIC of a MAERU is thoroughly briefed prior to departure on matters pertaining to existing local and political conditions at overseas facilities.

c. Develops a schedule of visits and operational plans for each storage location based on the verified inventory and the survey findings and agreements.

d. Arranges personnel travel itineraries and the shipment of the MAERU containers.

4.3.5.4 Operation Commencement. When the MAERU containers arrive, the site Commander arranges to move the units to the designated work area. Once the operation begins, the TIC is responsible for the following:

a. Scheduling the various functions such as sampling inspection, testing, maintenance, and repackaging to keep an even work flow.

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b. Completion of the documentation as lots are reworked, including data card preparation and MIL-STD-129 Tag Application.

c. Preparation of a summary report upon completion of the operation at each site.

4.3.5.5 Final Report. The cycle is completed with

the issuance of a final report to each overseas storage activity and the appropriate Fleet logistics managers. This is a detailed summary of the results of the MAERU operations including estimates of overall reliability by ammunition type, summarized test results, maintenance actions accomplished, and recommendations to adjust future MAERU testing frequency based upon evidence of changing deterioration trends.

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CHAPTER 4.4

Deficiency Reporting

4.4.1 Deficiency Reporting.

4.4.1.1 General. There are many types of reports in non-nuclear ordnance management. These range from a report of loss of life and property damage resulting from an explosive accident, to a Report of Discrepancy (ROD) involving shipping-type item (issue) and packaging discrepancies, to a Missing, Lost, Stolen, or Recovered (MLSR) report resulting from an inventory discrepancy.

4.4.2 Explosive Mishaps.

4.4.2.1 Scope.

a. OPNAVINST 5102.1D is the single policy directive for mishap and safety investigation reporting and record keeping by all Navy and Marine Corps commands, activities, units, installations and facilities. A "Mishap" is any unplanned or unexpected event causing death, injury, occupational illness, including days away from work, job transfer or restriction, and material loss or damage. All recordable mishaps are to be reported electronically to Commander, Naval Safety Center (COMNAVSAFECEN). COMNAVSAFECEN will be contacted within eight hours by telephone or electronic means of all Navy or Marine Corps ordnance related Class A explosive mishaps. Electronic reports to COMNAVSAFECEN are to be made via the Web-Enabled Safety System (WESS). WESS is a web (World Wide Web - www) based safety mishap data collection and reporting system that provides a real-time data entry and retrieval system with 20 years of data in a consolidated database. The Uniform Resource Locator (URL) address for WESS is: <http://www.safecenter.navy.mil/wess/default.htm>.

b. The objective of the Naval Ordnance Maintenance Management Program (NOMMP) as described in OPNAVINST 8000.16 series is to achieve and continually improve aviation (and Navy) material readiness and safety standards established by the Chief of Naval Operations (CNO).

(1) The Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) specifies that a

deficiency reporting program be initiated which ensures that corrective action occurs as a result of the reporting process. NAMDRP reports include Conventional Ordnance Deficiency Reports (CODR) and Explosive Mishap Reports (EMR). The alternate method of submitting CODR and EMR is via the NAMDRP website: <https://namdrp.navair.navy.mil>.

(2) The Airborne Weapons Corrective Action Program (AWCAP) is a closed loop database/system within the weapons community that provides visibility of the status of problems and deficiencies and feedback on corrective actions as they occur, to ensure operational readiness and to reduce maintenance costs. A CODR or EMR trigger an AWCAP deficiency report. The preferred method for submitting a CODR or EMR is using the All Weapons Information System (AWIS) at: <https://awis.mugu.navy.mil>.

c. DoD 5160.65-M of 01 April 1989 specifies uniform policies and procedures for inter-service notification and reporting of ammunition malfunctions.

4.4.2.2 Explosive Mishap Categories.

a. Explosive Mishap Report (EMR). An accident or incident involving conventional ordnance, ammunition, explosives, explosive systems and devices resulting in an unintentional detonation, firing, deflagration, burning, launching of ordnance material (including all ordnance impacting off-range), leaking or spilled propellant fuels and oxidizers (less OTTO fuel II), or chemical agent release is an explosive mishap. Accidents and incidents defined as explosive mishaps and meeting a severity classification of class A, B or C, will be reported as an EMR in accordance with OPNAVINST 5102.1D using WESS, even if an ordnance system works as designed, and human error contributed to an incident or accident. Any explosive event not meeting one of these severity classifications will be reported as an Explosive Event Report (EER).

(1) Mishap Severity Classifications:

(a) Class A Mishap. The resulting total cost of reportable damage \$1 million or more or an injury and/

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or occupational illness results in a fatality or permanent total disability.

(b) Class B Mishap. The resulting total cost of reportable property damage is \$200,000.00 or more but less than \$1 million; an injury and/or occupational illness results in permanent partial disability; or when three or more personnel are hospitalized for inpatient care (which for accident reporting purposes only, does not include just observation and/or diagnostic care) as a result of a single accident.

(c) Class C Mishap. The resulting total cost of property damage is \$20,000.00 or more, but less than \$200,000.00; a nonfatal injury that causes any loss of time from work beyond the day or shift on which it occurred; or a nonfatal occupational illness or injury that causes loss of time from work or disability at any time.

b. Explosive Event Report (EER). Any event involving conventional ordnance, ammunition, explosives, explosive systems and devices resulting in an unintentional detonation, firing, deflagration, burning launching of ordnance material (including all ordnance impacting off-range), leaking or spilled propellant fuels and oxidizers (less OTTO fuel II), or chemical agent release, explosive events will be reported in an explosive event report (EER) in accordance with OPNAVINST 8000.16 series, Volume I, Chapter 4.6. Even if an ordnance system works as designed, and human error contributed to an event. This pertains to all events that do not meet the severity classification of a Class A, B, or C Mishap previously described.

(1) An EER is initiated for the following events using AWIS at <https://awis.mugu.navy.mil>. For commands without internet access use the procedures defined in OPNAVINST 8000.16 series, Volume I, Chapter 4.6 for submitting a naval message.

(a) Detonation, Deflagration, Burning or Firing. It is an unintentional or inadvertent initiation, explosion or reaction or explosive material, component or system.

(1) Example: Unintentional discharges of all guns, including small arms (this includes discharge of weapon in government quarters or accidental discharges and ricochets during training on ranges), aircrew escape propulsion systems, marine location markers, flares, etc.

(b) Inadvertent Launch. Is an unintentional launch of a weapon.

(c) Chemical Agent Release. Any unintentional launch of a weapon.

(1) Damage occurs to property from contamination, or costs are incurred for decontamination.

(2) Individuals exhibit physiological symptoms of agent exposure.

(3) The quantity released to the atmosphere created a serious potential for exposure.

(d) Propellant and Oxidizers. Is leaking or spilled propellants (both solid and liquid), propellant fuels and oxidizers (less OTTO fuel II).

(e) All Ordnance Impacting Off-Range. This includes all small arms ranges where ricochets cause bullets to impact outside surface danger zones.

c. Conventional Ordnance Deficiency Report (CODR). A CODR incident is where ordnance or weapon systems fail to function in accordance with the designed and/or intent of the system and results in no property damage or injury. This includes improper storage, explosives, ammunition, explosive systems, or devices, including weapon systems components that come in direct contact with the ordnance (e.g. ammunition, explosives, missiles) and armament, handling, support equipment used to fire, handle, load, deliver, store or transport ordnance.

(1) A CODR is initiated for the following events using the All Weapons Information System (AWIS) at <https://awis.navy.mil>. For commands without Internet access use the procedures defined in OPNAVINST 8000.16 series, Volume I, Chapter 4.6 for submitting a naval message.

(a) Malfunction. The failure to function properly of conventional ordnance, explosives, ammunition, small arms, weapons or weapon system components and support equipment that come in direct contact with the ordnance.

(1) Example: Failure to launch, dud weapons, gun fails to cycle, JATO fails to ignite, etc.

(b) Inadvertent Launch or Arming. The unintentional launch, arming of an explosive component or weapon caused by mechanical failure.

(c) Defective Weapons Support Equipment. Deficiencies involving any equipment or device used in the manufacture, test, assembly, handling or transportation or any explosive system.

(1) Example: Skids, trailers, slings or similar equipment.

(d) Observed Defect. A discovered defective weapon or weapon system component that comes in direct contact with the ordnance, small arms, weapons, conventional ordnance, explosives, and ammunition.

(1) Example: Protruding primers, cracked grains, damaged or broken breech bolts, broken or scratched missile radomes, and advanced corrosion. Items that are under warranty, new or newly reworked will be reported using a Product Quality Deficiency Report (PQDR) per OPNAVINST 8000.16 series, Volume 1, Chapter 4.6.

(e) Other Deficiencies. The failure of an explosive component or explosives system to test, calibrate or otherwise meet pre-loading or pre-launch requirements.

(1) Example: The failure of Built-In-Test (BIT) and OTTO fuel spills. Any part of ordnance, ordnance systems, or ordnance equipment falling from aircraft requires a CODR.

4.4.2.3 Explosive Mishap Occurrences. Explosive mishaps may occur as a result of:

a. Some external force during processing in the logistic cycle such as impact or friction,

b. Some external phenomena such as fire, flooding, lightning, electrostatic discharge etc. while in storage, or

c. Expenditure (intended or accidental).

d. Mishap occurrences may be categorized as follows:

(1) Support Operations Mishaps. An event involving ordnance, explosives, or chemical agents that results in an explosion, release of chemical agent, or damage to the explosive item being processed during manufacturing, loading, assembling, disassembling, demilitarizing, handling, transport operations, or while in storage. Included are "near-mishap" events that, except for chance, would have resulted in an explosive mishap.

(2) Mishaps During Planned Expenditure. A deliberate actuation, release, or launching in combat, or noncombat expenditure of ordnance which fails to function in the designed manner. Examples include in-bore explosions, close-aboard prematures, hangfires, down-range prematures, misfires, or duds.

(3) Unplanned Functioning Mishaps. An accidental or inadvertent actuation, release, or launching of ordnance which, when armed, functions as designed irrespective of casualty or damage, or when unarmed becomes a potential hazard in friendly territory or inshore waters. Included are the deliberate emergency jettisoning of ordnance in friendly territory.

(4) Hazardous Conditions Potential Mishaps. Any defect or condition found in an ordnance item or component on visual examination or local test which might result in an explosive mishap. The following are included in this category:

(a) The recovery of jettisoned, abandoned, or lost ordnance items or explosives in public areas which, if found by untrained civilian or military personnel, represent a potential explosive hazard.

(b) The recovery of ordnance or explosive material of known or undetermined hazard in the possession of the private sector by Explosive Ordnance Disposal (EOD) personnel.

(c) The emergency disposal by EOD personnel of dangerous military explosive items recovered anywhere in friendly territory.

(d) The observation of a near mishap, an unnatural occurrence, or the unauthorized alteration or misuse of ordnance, which has the potential for casualty or damage during the alteration process or upon ultimate use.

4.4.2.4 Accident Responsibilities (On Station or Aboard Ship). It is the responsibility of the activity or command experiencing the mishap to conduct a local investigation and report all reportable explosive mishaps, in accordance with OPNAVINST 5102.1D or OPNAVINST 8000.16C. Information gathered by the local investigation is required for the reporting elements contained in Appendix B of OPNAVINST 5102.1D. In addition, the local investigation is the first step in determining the basic cause of a mishap and in formulating local corrective action. In many cases sufficient evidence may be available in the mishap report to arrive at a determination and to direct corrective action that may be required.

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4.4.2.5 Accident Responsibilities (Off-Station). Mishaps occurring during off-station shipment of ordnance by commercial or government carrier are of major concern to the Navy as to public safety, particularly in the case of train wreck or truck accidents where ordnance cargo is damaged or scattered outside the rail car or truck trailer, and for assessment of damage to the ordnance cargo and determination of commercial carrier liability.

a. NAVSEAINST 8020.18A is the Navy's governing instruction for transportation accident prevention and emergency response involving DoD ordnance. The instruction outlines preventive measures, emergency response action responsibilities, and important contact phone numbers for the Army Operations Center (AOC) and other sources of assistance. The NAVSEAINST specifies accident reporting information to be included on each Government Bill of Lading (GBL), SF 1103, accompanying a shipment of DoD ordnance. This information provides local authorities with all of the information required to properly notify DoD in the event of an explosive mishap on public roadways.

b. Unless otherwise directed by OSD, the Navy will decide on the need to perform safety investigations of transportation accidents involving its shipments. Investigations for future accident prevention purposes are encouraged. Duplication of effort by the National Transportation Safety Board (NTSB) and DoD component should be avoided. The Navy will cooperate with NTSB investigations.

c. Completed investigation reports will be forwarded to the OSD Safety and Occupational Health Policy Directorate with an additional copy furnished to the DDESB and the Military Traffic Management Command (MTMC).

d. Determination of damage, internal as well as external, and the assessment of repairs to return the ordnance items to serviceable condition are the responsibility of certified personnel at the ordnance activity receiving the ordnance involved in the accident.

4.4.2.6 Support Operation Mishap Corrective Action Responsibilities.

a. Mishaps during manufacturing, loading, assembly, disassembly, maintenance, or demilitarization are generally attributable to noncompliance with safety precautions or prescribed operating procedures,

equipment failure or defective equipment, or unknown causes.

(1) Local commands are to instruct and train or retrain personnel in operating procedures and safety precautions, and to initiate a program of closer supervision, for mishaps attributed to personnel error. For major mishaps, the PM is responsible for the review and revision, if appropriate, of any technical related documents and safety precautions for all operations of this type. Recommended changes to safety precautions should be forwarded to all applicable commands/activities.

(2) When the cause of a mishap is attributed to equipment failure or defective equipment, the local command is to review equipment inspection and maintenance programs for greater emphasis on preventive maintenance, and request assistance in equipment redesign/modification if appropriate.

(3) When personnel error and equipment malfunction or failure are eliminated, the explosive item in process must be considered as suspect and the exact failure mode reported as unknown. Depending on the severity of damage and injuries, the item process should be discontinued.

b. Mishaps occurring during ordnance handling or transportation, whether associated with in-process operations, receipt, issue, restowage operations, or transfers at sea are generally caused by equipment failure, defective equipment, or personnel error (non-compliance with safety precautions or prescribed equipment operating instructions).

(1) When local investigations indicate personnel error, local commands shall initiate a corrective program of training and instructions in explosive safety, non-nuclear ordnance transporting, and handling equipment operations. Naval Ordnance Logistics Support Center-AMMO (NOLSC-AMMO) and NWSC Indian Head Division Detachment Earle are responsible for changes to safety precautions and operating procedures for transporting and handling ordnance.

(2) Mishaps attributed to defective equipment or equipment failure during handling or transportation are generally avoidable by local preventive maintenance and inspection programs.

4.4.2.7 Hazardous Condition, Potential Mishaps Corrective Action Responsibilities. Report all mishaps in accordance with OPNAVINST 5102.1D.

a. Damaged non-nuclear ordnance discovered during stowage, Quality Evaluation (QE), or receipt inspection is generally the result of rough handling or a prior unreported mishap. Local commands should perform the following actions:

(1) Instruct all station personnel in the necessity for mishap avoidance and for reporting to supervisors all mishaps of damage or rough handling as they occur.

(2) Report all transportation-type discrepancies (i.e., shortages, losses, or damage occurring in transit) found during receipt inspection in accordance with NAVSUPINST 4610.33 on a Transportation Discrepancy Report (TDR) SF 361. If loss appears to be from theft, follow MLSR procedures as described in paragraph 4.4.9.

(3) Set damaged ordnance aside for inspection and classification by quality evaluation personnel.

b. Non-nuclear ordnance damaged by flooding (e.g., actuation of magazine sprinkler systems afloat) should lead to an inspection for the presence of water in ordnance containers, in cartridge and propelling charge tanks, and under waterproof protective caps of projectiles. The mishap report should include details on quantities showing evidence of water damage. Suspect ordnance should be tagged indicating the reason for reclassification and returned to an ordnance activity ashore at the first opportunity.

c. Defective ordnance discovered during stowage; surveillance; preparation of subassemblies and components for new production, assembly, or loading; or during preparation/disassembly of rounds for maintenance are usually the result of faulty manufacture or prior maintenance operations. Defects, such as missing gas check seals or protruding primers, may be prevalent in other rounds of the ammunition lot or lot stratum and should be reported by message.

d. Ordnance found on private property or in the custody of private individuals has a potential for catastrophic or major mishaps in the hands of untrained civilian personnel. EOD personnel accepting custody of such ordnance should determine, if possible, how it was obtained, where it was found, and other information reported in accordance with OPNAVINST 5102.1D.

4.4.2.8 Unplanned Functioning Mishaps Corrective Action Responsibilities.

a. Unplanned functioning mishaps are generally caused by dropping or striking a device containing a percussion primer, snagging a firing lanyard or cotter-pin pull-ring, or emergency conditions requiring the deliberate jettisoning of ordnance.

b. Local commands conduct investigations, review local and published safety precautions, provide instruction or training emphasizing safe operating procedures, and report findings in accordance with OPNAVINST 5102.1D. Jettisoned ordnance should be reported if it occurs in friendly territory or in-shore waters with the possibility of its recovery by the private sector.

4.4.2.9 Planned Expenditure Mishaps Corrective Action Responsibilities.

a. Planned expenditures, in combat or noncombat operations, are considered as beginning with the placement of an ordnance item into a weapon or launcher with intentions to fire or launch the item. For automatic loading weapon systems, this includes the placement of the ordnance item in the loading/firing cycle. Naval ordnance is designed to safely and reliably negotiate cycling, ramming, chambering, or launcher loading, firing, launching, and effective performance on target. In some cases this includes case extraction and return of weapon to battery for maintaining a required rate of fire. Mishaps occurring during expenditure are attributable to one or more of ordnance and weapon system interface incompatibilities, defective ordnance, defective weapon system or equipment, or personnel error (noncompliance with safety precautions or prescribed operating procedures).

b. Mishaps are primarily due to the effects of external forces on an ordnance item during its life cycle from production through release for expenditure. These forces or effects are varied, unpredictable, and generally not repetitive. Planned expenditure mishaps are more likely to be repetitive, given the same ordnance item and weapon system configuration and the same set of conditions. Repetitive major mishaps which result in lot or lot strata suspensions can result in a serious reduction in Fleet readiness. Intensive investigations and rapid response corrective actions are the general rule for major mishaps occurring during expenditures.

(1) All activities engaged in combat or non-combat expenditure of non-nuclear ordnance experiencing mishaps or malfunctions should discontinue the

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use of the item, pending local investigation and assessment of probable causes.

(2) When local investigation indicates an obvious cause for a minor mishap, such as failure to set point detonating fuzes to "on" (personnel error), local corrective action is considered sufficient grounds for resumption of use.

(3) For all other mishaps where ordnance fails to function in the manner for which designed and local investigation does not indicate a probable cause, reports shall be submitted as required by OPNAVINST 5102.1D. Depending on the degree of actual or potential casualties and damage, and operational necessity (combat), usage may be resumed shifting to other ammunition lots or ordnance types if possible.

(4) Because explosive accidents and major malfunctions are usually characterized by the destruction or loss of the offending item, the difficulty in positive determination of cause is magnified. All fragments and remains of the item should be collected for examination and tests. Photographs of damages are desirable. Instances have been noted where minor malfunctions or incidents have resulted in the unnecessary disposal of the item. In most cases, the hazard associated with an incident or minor malfunction is at the instant of occurrence or immediately thereafter. After an approved interval, an item sustaining a minor mishap should be tagged, set aside, and returned to the nearest issuing activity ashore for investigation tests or other disposition as may be directed by the PM through the IM. Nothing in the above is to be construed as prohibiting the immediate disposal of an item that in the opinion of the Commanding Officer is considered to constitute an imminent hazard.

4.4.3 Malfunction Investigations.

4.4.3.1 General.

a. Every explosive mishap requires a malfunction investigation. The majority of explosive mishaps occurring in the Navy are of the magnitude and circumstances that only require a local investigation to determine the cause and appropriate corrective action as described within paragraph 4.4.2. with reports submitted to the appropriate authorities specified in the OPNAV instructions.

b. Some explosive mishaps will have formal malfunction investigations assigned requiring involve-

ment by external management and engineering activities.

c. The Joint Ordnance Commanders Group (JOCG) Joint Conventional Ammunition Policies and Procedures (JCAPPs) have been approved by the Office of the Under Secretary of Defense (Acquisition, Technology and Logistics) as an alternative to the corresponding chapters of the DoD 5160.65-M, Single Manager for Conventional Ammunition (Implementing Joint Conventional Ammunition Policies and Procedures). JCAPP 11 of January 2006, titled SAFETY, para J11.3.1, discusses responsibilities and procedures for malfunction investigations and reporting.

4.4.3.2 Investigation Team. The severity of the mishap, the ordnance/weapons system involved, and the location of the mishap determines which command directs the investigation and which commands will provide representatives on the investigation team. The investigation responsibilities are basically the same regardless of who assigns them and to whom they are assigned. Typically, the tasks should include:

- a. Alerting other users that a mishap has occurred.
- b. Preventing further use of like items until a determination as to the cause of the mishap has been made.
- c. If needed, conduct an investigation to determine the causative factors of the mishap.
- d. Informing all concerned of the determination.
- e. Release of the items for use, maintenance or demilitarization.

4.4.3.3 Emergency Reaction Plan for Catastrophic Explosive Mishaps. Explosive mishaps resulting in fatalities, severe injuries, or equipment damage mandate immediate action to preclude a recurrence under the same or similar circumstances. The following steps are critical to preventing a recurrence.

4.4.3.4 Immediate Action.

- a. Evaluate message report for:
 - (1) Description of occurrence.
 - (2) Accuracy of round(s) identification (projectile, propelling charge, fuze, and any other pertinent items).

(3) Accuracy of all lot numbers (can be found by checking ammunition data files).

(4) Any other information that can be verified.

b. Inform PEO-IWS3C/PM416 and NOSSA.

(1) PEO-IWS3C performs an assessment of the world wide inventory.

c. Telephone request to NOLSC-AMMO, Mechanicsburg, PA followed up by 2T Cog Ammunition malfunction database research sheet to issue NAR suspending involved ammunition lots to condition code J. Send information copies of the NAR message to all addresses of original message.

(1) In the event that PEO-IWS3C/PM416 is unavailable to carry out the requirements above, the ISEA shall carry out the requirements.

(2) In the event that PEO-IWS3C/PM416 and ISEA are unavailable to carry out the requirement of c above, NOLSC-AMMO Mechanicsburg, PA shall execute the requirements. NOLSC-AMMO Mechanicsburg, PA shall make every effort to ensure that the NAR is being issued on a valid lot number.

d. Send immediate message to ship or activity, Fleet Commander, Type Commander (Copy to CNO), PEO-IWS3C/PM416 and NOSSA advising or requesting the following:

(1) Request all fragments and residual material be retained for analysis and investigation.

(2) Request all onboard suspect ammunition be offloaded at the first opportunity and held for investigation.

(3) Request any other information which could be applicable to the investigation.

(4) Request confirmation of previously reported lot information (only if there is any question or suspect of original data).

(5) That PEO-IWS3C/PM416 is the action officer on all matters regarding the malfunction investigation and is forming a special technical investigation team.

e. Appoint members of the investigation team and assign a team leader or senior technical representative. Fleet support will be requested by telephone followed by message to provide personnel for meetings and deployment, if necessary. The initial meeting should occur within 24 hours.

4.4.3.5 Action.

a. Immediate action on receipt of a telephone report or e-mail (from reporting activity or from a third party in the chain of command) will be taken, including the following:

(1) The PM will alert appropriate ISEAs, and/or DAs, by telephone or e-mail, providing details and digital images as received and the Date-Time Group (DTG) of the confirming mishap message or the message itself.

(2) The PM will alert NOLSC-AMMO by telephone and, depending on the circumstances and adequacy of information, will direct the suspension of the lot or type of non-nuclear ordnance involved.

b. Priority action is taken as follows when a mishap message report is received.

(1) The PM, ISEAs, DAs, and the QEC/QEA evaluate accuracy of the ordnance identification as reported, including projectile, propelling charge, and components, in comparison with item configuration and lot data files. They identify lot strata parameters containing primary explosive components of the same lot, same component manufacturer, or same loading and assembly production run.

(2) On the day of evaluation completion, ISEAs, DAs and the QEC/QEA will provide the PM with the following information by telephone:

(a) Acknowledgment of mishap message report receipt (negative reports required).

(b) Results of the identification evaluation.

(c) Comments, additional information required, and primary suspected failure modes (based on similar past mishaps).

(d) If reported circumstances are unprecedented, identify by name and rank/grade the individual designated as an investigative team member.

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c. The PM will do the following within 24 hours of a mishap message report receipt:

(1) Confirm prior telephone direction to NOLSC-AMMO by establishing a 2T Cog Ammunition malfunction database research sheet confirming or amending lot or type originally suspended in accordance with ISEA, DA, and QEC/QEA identification evaluations.

d. The decision to deploy a team to the site will be dictated by severity or circumstances of the mishap, or by direct request from OPNAV, COMNAV-SEASYSOM, Fleet or Type Commander.

(1) Upon deciding to deploy a team to the site, the PM is responsible for the following:

(a) Sending a message to the ship or activity and the appropriate chain of command addressees, identifying all members, their Estimated Time of Arrival (ETA), and team support requirements.

(b) Providing required travel funding for investigation team members.

(c) Assembling the investigation team members for an initial meeting.

(2) If an on-site investigation team is not required, the PM will be responsible for the following:

(a) Assigning the investigation responsibilities to appropriate engineering and other support activities, and provide funding to participate in the investigation if required.

(b) Send a message to the ship or activity and the appropriate chain of command addressees, notifying them that the technical investigation will be conducted off-site.

4.4.3.6 Investigation Responsibilities. The following responsibilities will be carried out by the assigned activity and/or its representative on the deployed investigation team:

a. ISEA (NAVSURFWARCENDIV) Crane.

(1) Evaluate initial reports of catastrophic occurrences as established in paragraph 4.4.3.4

(2) Review all mishap reports on assigned items and submit comments and recommendations to the PM on actions required.

(3) Upon establishment of a formal technical investigation i.e. SAMC, by the PEO-IWS3C PM4 Conventional Ammunition Program Office, coordinate the development of a POA&M with the DA and/or AEA. Monitor and report progress made by the assigned DAs and QEC/QEAs and NOLSC support.

(4) Coordinate and lead on-site technical investigation with the reporting unit/activity, units Immediate Superior in Command (ISIC), DA, AEA or other engineering activities, e.g. gun systems, as appropriate.

(5) Coordinate with NOLSC-AMMO Mechanicsburg and unit/activity in obtaining residual assets, samples, in order to conduct tests. Point of destination of sample quantities will be provided as part of the referral.

(6) Monitor DA and/or AEA performance against the POA&M and provide status to PEO-IWS3C/PM4.

(7) Review the final malfunction investigation report prepared by the assigned DA or AEA, providing endorsement, non-endorsement or additional recommendations to PEO-IWS3C/PM416 as appropriate.

(8) Provide monthly progress/status reports by –the 5th working day of each month to PEO-IWS3C/PM416 on all open and funded investigations. Reports will start at the receipt of funds and continue until completion of final malfunction investigation report.

b. Appointed DA(s) and AEA.

(1) Evaluate initial reports of catastrophic occurrences following guidelines in paragraph 4.4.3.4.

(2) Review mishap/malfunction reports and provide recommendations to PEO-IWS3C/PM416 or the ISEA as appropriate.

(3) When requested by the PEO-IWS3C/PM416 or the ISEA, prepare POA&M for submission in sufficient time to meet the submission requirements outlined in message establishing the technical investigation.

(4) Fully cooperate with the ISEA, AEA, and other DAs when a formal technical investigation into causes is assigned by PEO-IWS3C/PM416.

(5) Recommend special tests and analysis appropriate to investigation to the ISEA via POA&M.

(6) Provide test sample and related item (e.g. weapon, fragments, etc.) to the ISEA.

(7) Notify the ISEA when test samples and related items are received.

(8) Schedule and manage tests as defined in the approved POA&M. If problems or excessive delays occur in executing POA&M, immediately inform PEO-IWS3C/PM416 and the ISEA.

(9) Submit monthly progress/status report to the ISEA by the 3rd working day of the month. Monthly progress/status report shall include an updated milestone chart.

(10) Prepare final malfunction investigation report for submission to the ISEA for review.

c. QEC/QEA.

(1) Review mishap/malfunction reports and submit comments and recommendations on probable causes, reclassification actions, and investigation requirements. Submit comments within 24 hours by telephone for major mishap/malfunctions, and when appropriate for minor mishap/malfunctions.

(2) Provide immediate telephonic response to the PM on assigned catastrophic mishap emergency reaction plan action items.

(3) Schedule, perform, and report results of investigations and laboratory tests assigned by the PM or as contained in a malfunction investigation plan.

(4) Provide historical QE test and Fleet performance data to the PM or DA/ISEA as required.

d. NOLSC-AMMO Mechanicsburg, PA. As ICP for Navy conventional ammunition and in accordance with NAVSUP P-724 shall:

(1) Ensure PEO-IWS3C/PM416, ISEA, and DA(s) are aware of all mishap reported per OPNAVINST 5102.1D and OPNAVINST 8000.16C.

(2) Issue NARs per NAVSUP P-724 to change Condition Code (CC) item under investigation as directed by PEO-IWS3C/PM416.

(3) Ensure that the JMC/SMCA and other Service users of Navy non-nuclear ordnance, including countries supported by the Security Assistance Program (SAP), are addressed on NARs as appropriate. NARs are distributed in message format to Address Indicator Groups (AIG) 181, 7613, 11005, 11253, and 11480.

(4) Maintain a permanent record (NAVSUP P-801 the NAR Manual) of all service-wide reclassifications.

(5) Arrange for the shipment of required test samples and related items with MILSTRIP and shipping data for DA/QEC/QEA investigations as requested by the ISEA.

(6) Obtain inventories of reclassified items as required by the PM, ISEA, DAs, or the QEC/QEA.

(7) Develop, maintain, and manage an automated data processing system to track and cross reference all mishaps, Ammunition Information Notices (AINs), NAR actions by DoD code, NAR number, SAMC number and lot number.

4.4.3.7 Message Addressees. The appropriate PM and NOLSC-AMMO are required action addressees on all mishap/malfunction message reports. The determination to release the item to general usage, by direct response to the reporting activity or to reclassify it by NAR, is required in the normal response interval for a routine (five days) or a priority (24 hrs) action message. Information addressees with support responsibilities in this determination are to be guided by this policy.

4.4.3.8 Final Ammunition Disposition by the PM. From the evidence and circumstances in the mishap report, and findings and recommendations of the investigation report, the PM will determine one of the following:

a. Determine that issue and use of the item lot, lot strata, or type as serviceable CC "A" material may continue. For this determination the PM will advise the reporting activity and all addressees that suspension from use is not warranted and that local usage may be resumed.

b. Determine that issue and use may continue, but with qualifications. The PM will direct NOLSC-AMMO to reclassify the item lot, lot strata, or type to CC "B", with qualifying notation, CC "C", priority

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of issue, or CC "N" for issue and use in an emergency only.

c. Determine that issue and use may continue, under any circumstances. The PM will direct NOLSC-AMMO to withdraw the item lot, lot strata, or type from issue and use permanently as CC "H" (unserviceable-condemned), CC "P" (unserviceable-for disposal after reclamation of required components), CC "F" (unserviceable-requires major maintenance including component replacement), or as CC "E" (unserviceable-requires 100 percent screening for defects).

4.4.3.9 ISEA Additional Responsibilities. In addition to specific malfunction investigation responsibilities, the ISEA (NAVSURFWARCENDIV Crane) is also responsible to the PM for the following:

a. Summarize investigations in a Malfunction Investigation Status Report to be published semi-annually or as directed by PEO-IWS3C/PM416.

b. Maintain an electronic or hard copy for all open and completed SAMC files for retrieval and further use.

4.4.4 Notice of Ammunition Reclassification (NAR) System.

4.4.4.1 General. The degree of ordnance serviceability is defined for ordnance management by the assignment of material Condition Codes (CCs). All newly produced/procured non-nuclear ordnance that is completely finished, tested, and legally accepted by the receiving activity, is assumed to be serviceable - CC "A" material. Over a period of time, environmental effects, damages sustained in handling, and deterioration due to aging result in changes in the degree of serviceability. Stock record changes to CCs can occur as a result of local reclassification or directed reclassification by the PM. Local reclassification becomes necessary when QE personnel inspect material in storage or received from other activities, or upon segregation of non-nuclear ordnance in an undetermined condition CC "K", and determination is made that its original condition is no longer valid. Local reclassification is limited to individual items or those stocks locally inspected. Defects are not lot or type oriented, except for local stocks or lots that have exceeded their Mission Capability Packages (MCPs). Changes in wholesale stock items occur in the same manner. JMC/SMCA activities prepare an Ammunition Condition Report (ACR) for submission to the owning Service ICP for review and disposition of the material

as a result of the new CC. Unilateral reclassification by issuing a NAR is required when the following occurs.

a. QE periodic test results indicate service wide stocks of an ammunition lot or stratum of lots are no longer serviceable.

b. Malfunction investigations indicate inherent design or manufacturing defects are present in a lot or lot stratum that may exist elsewhere in the stockpile.

4.4.4.2 Description. NARs are distributed in message format to AIG 181, 7613, 11005, 11253, and 11480 to pass information directly to all stocking activities and potential users. Only a few NARs apply to non-nuclear ordnance carried aboard submarines and submarine support ships. Therefore, COMSUBLANT and COMSUBPAC monitor NAR messages for their units and transmit only those applicable to them. Individual NARs are numbered consecutively in each fiscal year (e.g. 201-02). Each message normally contains more than one NAR. The NARs serve as supplements to NAVSUP P-801. NAR messages are canceled when they are incorporated into a change or there is a revision to NAVSUP P-801. Procedures for processing NARs by ordnance activities are contained in Chapter 2 of the NAVSUP P-801. A similar system of reporting mishaps and malfunctions, their analysis and investigation, and reclassification action notices exists in the Army. Based on the inter-service agreement on exchange of malfunction and reclassification actions, Army reclassification of common usage items in Navy stocks are usually concurred in and disseminated to Navy users by NARs. USMC class V(W) mishaps/malfunctions are reported and investigated via Army or Navy channels, depending on which service is the original design and procurement agent. All USMC reclassifications are disseminated by NARs. The Navy and USMC reserve the right to nonconcur in Army reclassifications of common items in their stocks, if readiness factors or circumstances of the Army mishap/malfunction are not likely to be encountered.

4.4.4.3 Unserviceable - Suspended, Limited Use Ammunition NAVSUP P-801. This NAVSUP P-801 publication is the USN/USMC comprehensive listing of all non-nuclear ordnance, and certain commercial explosive items (such as cartridge-powered stud drivers, dynamite, etc.), which are not suitable for unrestricted issue and use. Permanently suspended lots or lot strata are listed, until rolled-up as an obsolete and unsatis-

factory type, and retained on the listing in case such items later reappear. NAVSUP P-801 is listed in DoDIC/NALC sequence, and alphabetically for items and components without assigned DoDIC/NALCs. Entries indicating a release of ordnance are also listed, but appear in only one change or revision. This publication is applicable to all Service units/activities storing and/or handling Navy, Marine Corps, or Coast Guard owned non-nuclear ordnance and to foreign militaries purchasing USN/SMCA manufactured ordnance. Limitations imposed on material by the publication do not supersede cautions/warnings/restrictions in technical manuals, ordnance pamphlets, firing tables, or other applicable documents. Those publications shall be followed in addition to the limitations contained in NAVSUP P-801. A material CC listed in NAVSUP P-801 does not necessarily override a locally imposed CC, but shall do so if the local code is less restrictive. Although published by direction of NAVSUP, individual entries may be included at the direction of CNO, CMC, NAVSEA or NAVAIR.

4.4.5 Transportation Discrepancy Report (TDR).

4.4.5.1 Scope. The Navy's governing instruction for TDRs is NAVSUPINST 4610.33, which is a joint service instruction. NAVSUPINST 4610.33 applies to all US commercial carriers except Military Airlift Command (MAC) or ocean carriers. TDRs, SF 361, are used to accomplish the following:

- a. Notify, or confirm notification to, carriers of a problem with a shipment.
- b. Notify a carrier to pick up damaged material and to show where the material is located.
- c. Request information from any source to assist in resolving a discrepancy (such as requesting pricing data from a shipping activity or inventory control point).
- d. Reply to a request for information.
- e. Advise action agencies that the discrepancy previously reported was either changed or canceled.
- f. Document problems at a stop-off or transshipment point, for action by the consignee.
- g. Report all transportation discrepancies that have not been resolved within the time limits set by NAVSUPINST 4610.33.

h. Document discrepancies when services ordered by the Government are not performed by the carrier (e.g., ordnance not delivered on time).

- i. Adjust inventory and financial records.
- j. Support claims against carriers or contractors.

4.4.5.2 Applicable Forms. Form DD 173/2 (Joint Message Form) NAVSUPINST 4610.33 Chapter 2 will be prepared for transportation discrepancies applicable to CLASSIFIED or PROTECTED, including hazardous material shipments. DD Form 470 (Cargo Outturn Report) is used as a summary and transmittal sheet for a consolidated TDR/DD Form 788 (Private Vehicle Shipping Document) or commercial carrier form file when a sealift carrier is suspected of being the cause of the loss or damage.

4.4.5.3 Discrepancies Excluded by NAVSUPINST 4610.33.

a. Reporting of equipment offered by carriers that cannot meet the safety requirements for moving hazardous materials (see NAVSUPINST 4600.70).

b. Reporting, adjusting, and accounting for supply discrepancies; preservation, packaging, packing, and supply item identification marking, and; lost or damaged parcel post shipments (see paragraph 4.4.6).

c. Discrepancies found in FMS or grant aid shipments not moving in the Defense Transportation System.

d. Any problem with Transportation Control and Movement Documents (TCMDs).

4.4.5.4 Major Discrepancy Types:

- a. Astray.
- b. Shortage.
- c. Pilferage.
- d. Theft.
- e. Damage.
- f. Vandalism.
- g. Overage.

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h. Special contract or carrier services not provided.

i. Entire shipment not received.

4.4.5.5 Responsibilities. The Surface Deployment and Distribution Command (SDDC) is the responsible Executive Agent for managing the DoD worldwide cargo loss and damage reporting and analysis system that includes TDRs. Command Transportation Officers will perform the following functions:

a. Document and submit TDRs on all transportation discrepancies in shipments received, in accordance with NAVSUPINST 4610.33.

b. Investigate and gather facts relating to each discrepancy in shipment to support Government claims against the carrier.

c. Take necessary TDR corrective actions.

d. Respond to requests for additional information within set timeframes.

e. Submit an MLSR report as described in paragraph 4.4.9. Notify supporting security/law enforcement element immediately upon learning of discrepancies which indicate possible security compromise, theft, vandalism, unexplained loss, or any other activity that may warrant their investigation.

4.4.6 Supply Discrepancy Report (SDR).

4.4.6.1 Scope. The Navy's governing instruction for SDR's, SF 364, is NAVSUP P-723. SDR's were previously called Report of Discrepancy (RODs). The SF 364 will have the title "Report of Discrepancy" until the form is amended. SDRs are used to accomplish the following.

a. Identification, reporting, and resolution of discrepant shipments occurring in the DoD logistics system, when the discrepancy is due to shipper error.

b. Identification, reporting, and resolution of discrepant shipments of new production material and reworked material. Also included are discrepancies on material received from contractors, other supply officer (Navy to Navy) transfers, and discrepancies involving shipments to or from Foreign Military Sales, Grant Aid, and Military Assistance Program customers.

4.4.6.2 Excluded Discrepancies.

a. Unsatisfactory material involving local base or station warehousing actions to or from internal or satellite storage sites. This exclusion does not apply when a transfer of ownership occurs from one command to another as part of the local move (i.e. in a transfer from the station host to a tenant).

b. Transportation-type discrepancies covered by NAVSUPINST 4610.33 on a TDR, SF 361.

c. Product deficiencies resulting from design, material, or procurement attributable to nonconformance to contractual requirements or specifications are reported in accordance with SECNAVINST 4855.5A, on a Product Quality Deficiency Report (PQDR), SF 368.

4.4.6.3 Responsibilities. Activities submitting SDRs are responsible for submitting them correctly and within the timeframes specified in NAVSUP P-723. Activities responding to SDRs are responsible for researching discrepancies and responding within the timeframes specified in NAVSUP P-723.

4.4.7 Financial Liability Investigation of Property Loss (FLIPL) Report.

4.4.7.1 Purpose. The FLIPL will be used to report and account for the following types of inventory adjustments. NAVSUP P-724 provides policy and procedural guidance for the FLIPL.

a. An unresolved physical inventory adjustment that meets the causative research criteria as defined in NAVSUP P-724, Chapter 6.

b. An unresolved physical inventory adjustment when research has determined that theft, fraud or negligence is suspected.

c. A FLIPL will be completed within 45 calendar days after the completion of causative research if the causative research has failed to yield the cause of the material gain or loss.

4.4.7.2 Report Form. The form for submitting a FLIPL report is the Form DD 200.

4.4.8 Causative Research.

4.4.8.1 Purpose. Per NAVSUP P-724, causative research is an in-depth investigation to identify why a physical inventory adjustment occurred. It is performed when pre-adjustment research cannot resolve the discrepancy.

4.4.8.2 Procedures. Conduct causative research after the physical inventory is completed and adjustments are processed to the stock point record. Adjustments requiring causative research:

a. Adjustments on Controlled Inventory Items (CAT I & Cat II) regardless of dollar value.

b. Adjustments on CIIC 7 (Cat II) items with Net Explosive Weight (NEW) greater than or equal to 10 pounds.

4.4.8.3 When causative research is completed:

a. When cause has been established, correct erroneous transactions, retain supporting documentation for two years.

b. If the reason for the loss or gain has not been established, submit a DD Form 200, Financial Liability Investigation of Property Loss (FLIPL) report (see

paragraph 4.4.7). If prior OPREP-3 Navy Blue message was submitted, annotate the DD Form 200 with the OPREP-3 Date-Time-Group (DTG).

4.4.9 Missing, Lost, Stolen, or Recovered (MLSR) Report.

4.4.9.1 Scope. Per NAVSUP P-724 Missing, Lost, Stolen, or Recovered (MLSR) ammunition is both an inventory accuracy issue as well as a security issue. Unique MLSR message reports have been discontinued. Investigation concerning MLSR ammunition should follow causative research procedures (see Section 4.4.8) Reports for apparent MLSR incidents affecting Cat I and II AA&E and classified material shall be accomplished via submitted an OPREP-3 Navy Blue message within 48 hours of incident discovery. Procedures and format for an OPREP-3 Navy Blue message are found in OPNAVINST 3100.6G.

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CHAPTER 4.5

Technical Manuals

4.5.1 General.

4.5.1.1 Purpose. Technical manuals and publications are used for a variety of purposes.

a. Identify specific design, safety, handling, maintenance, or storage specifications for a specific ammunition item or group of items.

b. Identify general design, safety, handling, maintenance, or storage specifications for a group of ammunition items.

c. Provide desk reference documents for ammunition management.

4.5.1.2 Governing Instruction. NAVSEA technical manuals are governed by NAVSEAINST 4160.3 and S0005-AA-PRO-010.

4.5.1.3 Publication Listing. This section identifies the technical manuals and publications that cover various surface ammunition items and processes, and what command has been assigned as the Technical Manual Maintenance Activity (TMMA).

4.5.1.4 Publication Requisitioning. Manuals and publications listed in Figure 4-5-1 are available to DoD activities by referring to NAVSUP P-409

Military Standard Requisitioning and Issue Procedures (MILSTRIP)/ Military Standard Transaction Reporting and Accounting Procedures (MILSTRAP) Desk Guide for requisitioning instructions. Activities may be placed on the distribution lists for these manuals by application to the Commander, Port Hueneme Division, Naval Surface Warfare Center (Code 5B61), 4363 Missile Way, Port Hueneme, CA 93043-4307.

4.5.2 Surface Ammunition Technical Manuals.

The technical manuals and publications listed in Figure 4-5-1 provide detailed information for surface ammunition items. These technical manuals and publications are to be referred to as the authoritative source of information.

4.5.3 Reporting Technical Manual Deficiencies.

Any command identifying a deficiency, problem, or providing a recommendation relating to a technical manual may use a NAVSEA (User) Technical Manual Deficiency/Evaluation Report (TMDER), NAVSEA Form 4160/1 located in the back of each manual. The user must completely and accurately fill out the form and mail it to the preprinted address so that appropriate action can be taken on the deficiency/evaluation. It is important to note that the preprinted form can only be used for the manual in which it is in due to the preprinted information.

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MANUAL NUMBER	TITLE	TMMA (Command)
SW010-AD-GTP-010	Small Arms & Special Warfare Ammunitions	NSWCDIV Crane
SW010-AE-GYD-010	NAVSEA Surface Ammunition Management	NSWCDIV Crane
SW010-AF-ORD-010/ NAVAIR 11-1-117	Identification of Ammunition	NSWCDIV Crane
SW010-AG-ORD-010(C)	List of Explosives for Navy Munitions	NSWCDIV Indian Head Yorktown Det
SW010-AH-ORD-010(C)	Armament of Naval Vessels	NSWCDIV Crane
SW020-AC-SAF-010	Transportation & Storage Data for Ammunition	NSWCDIV Indian Head Earle Det
SW030-AA-MMO-010	Navy Gun Ammunition	NSWCDIV Crane
SW050-AB-MMA-010/ NAVAIR 11-15-7 Vol 1	Pyro Screening/Marking/Countermeasure Devices	NSWCDIV Crane
SW050-AB-MMA-020/ NAVAIR 11-15-7 Vol 2	Pyro Screening/Marking/Countermeasure Devices (Obsolete and Unserviceable Items)	NSWCDIV Crane
SW050-AC-ORD-010/ NAVAIR 11-15-8	Toxic Hazards Associated with Pyro Items	NSWCDIV Crane
SW060-AA-MMA-010	Demolition Material	NSWCDIV Crane
SW061-AA-MMA-010	Use of Explosives in Underwater Salvage	NSWCDIV Crane
SW061-AB-ORD-010	Carts & CADs for Underwater Associated Equipment	NSWCDIV Crane
SW073-AC-MMA-010	Miscellaneous Chemical Munitions	NSWCDIV Crane
NAVSUP P-801	Ammunition Unserviceable, Suspended, and Limited Use	NOLSC-AMMO
NAVSUP P-802	Navy Ammunition Logistics Codes	NOLSC-AMMO
NAVSUP P-805	Receipt, Storage, and Issue Sentencing	NOLSC-AMMO
NAVSUP P-806	OT/2E/2T Cog Ammunition Segregation Sentencing	NOLSC-AMMO
NAVSUP P-807	Fleet Sentencing	NOLSC-AMMO
NAVSUP P-808	Visual Aids	NOLSC-AMMO

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SECTION 5

Maintenance Management

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CHAPTER 5.1

Maintenance Functions

5.1.1 General. Maintenance is all action taken to retain material in a serviceable condition or to restore it to serviceability.

a. Preventive maintenance is the care and servicing by personnel for the purpose of maintaining equipment and facilities in satisfactory operating condition by providing for systemic inspection, detection, and correction or incipient failures either before they occur or before they develop into major defects.

b. Corrective maintenance are those actions taken to return unserviceable material to a serviceable condition.

c. Because of its impact on readiness, Maintenance is one of the most important functions associated with the in-service portion of the ammunition life cycle. Maintenance operations are the most economical and rapid means of generating additional Ready For Issue (RFI) ammunition to support operating forces. On-hand assets include unserviceable stocks, less Condition Code (C/C) "H", "P", and "V", based on the presumption that unserviceable items can be made RFI, given trained personnel, available components, and authorized facilities. Policies and procedures respond to the CNO Approved Acquisition Objective (AAO) and to the Fleet operational requirements. The AAO is the goal to be achieved and maintained. The various Reclassification Operations determine the assets in the inventory requiring maintenance that are used towards achieving the AAO.

5.1.1.1 Reclassification Operations. Reclassification of serviceable stocks to unserviceable and their migration from RFI to non-RFI stock, generating the need for maintenance, occurs as a result of the following programs and operations.

a. Quality Evaluation (QE) Program. This program, in addition to providing a general assessment of the quality of the ammunition, will identify lots, strata, or types of end items requiring correction of defects or replacement of unsafe or unreliable components.

b. Malfunction Investigations. Investigations to determine causes of reported ordnance accidents, incidents, or malfunctions often detect unsafe, unreliable, or defective components assembled in lots or lot strata. Maintenance is required to correct the defective lots.

c. Segregation. The segregation process separates and classifies ordnance of undetermined condition as C/C "K". Repairable items, classified as C/C "E" and "F" by the segregation process, are candidates for minor and major maintenance respectively.

d. Local Inspection. Routine day-to-day operations such as issue, receipt, magazine restowage, or magazine surveillance, involve either a formal quality assurance inspection or a visual inspection by qualified ordnance personnel. During these operations "set asides" of unserviceable repairable items are generated.

e. Modification. In certain cases, it becomes necessary to convert either serviceable or unserviceable assets of an item in long supply (in excess of inventory objective levels) to an item configuration that is in short supply.

5.1.1.2 Perspective. The primary focus of maintenance management is to build, schedule, and execute a maintenance program to best achieve the AAO for each ammunition item, within fiscal constraints applied by the Navy budget.

5.1.1.3 Organizational Relationships. Figure 5-1-1 identifies the organizations involved in the shore-based maintenance processes and their relationship to each other.

5.1.2 Maintenance Levels. Ammunition maintenance has been divided into two categories within the Navy and for work done by the Single Manager for Conventional Ammunition (SMCA).

5.1.2.1 Major Maintenance. This term is generally synonymous with Depot maintenance. Depot maintenance is that maintenance performed on materiel requiring major overhaul or a complete rebuild of

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parts, assemblies, subassemblies, and end items, including the manufacture of parts, modifications, testing and reclamation as required. Normally includes renovation, conversion, modification, reclamation, refurbishment, and remanufacture of serviceable or unserviceable assets.

a. Renovation is a general term that denotes the performance of any process (other than complete breakdown and reassembly) required to render existing assemblies, sub-assemblies and related items fully serviceable. Renovation includes exterior maintenance, overhaul, reconditioning, repair and rework.

b. Conversion is a change in form and/or function of an item or population of items. Conversion results in a change to the configuration identity (i.e., DODIC/NALC) of converted items. Conversion may be accomplished during maintenance or the RDT&E process.

c. Modification is a change that normally affects the configuration identify (i.e., changes the DODIC/NALC/NSN) and may affect the form and/or function of modified items. Modification may be accomplished during maintenance operations to comply with technical directives.

d. Reclamation is the process of recovering usable components from assemblies or All Up Rounds that are obsolete, in excess of requirements, or unserviceable and beyond economic repair.

e. Refurbishment is similar to renovation to restore to a former better state as by cleaning, repairing or rebuilding.

f. Remanufacture is to take existing items and manufacture into a new product.

g. Serviceable Ammunition is ammunition that is capable of performing as designed or as intended (under limited or restricted conditions). Items identified with a Condition Code of "A", "B", "C", or "D" are categorized as serviceable.

h. Unserviceable Ammunition is ammunition that has one or more defects that would or would be expected to preclude or impair the ability of the ammunition to perform as intended. Items identified with a Condition Code of "E", "F", "G", "H", "P" or "V" are categorized as unserviceable.

5.1.2.2 Minor Maintenance. This term is generally synonymous with Intermediate maintenance. Normally includes cleaning, painting, repackaging, restenciling, and corrosion control (exterior maintenance normally associated with Condition Code "E").

5.1.3 Responsibilities.

5.1.3.1 Resource Sponsor. The OPNAV resource sponsor for maintenance is N411.

a. Provides resource management, policy, overall monitoring, and direction for ammunition maintenance funding.

b. Provides coordination with other resource sponsors in developing a consolidated maintenance budget submittal to best meet the needs of the Fleet.

c. Oversees the development, coordination, and justification of the requirements stated in the Maintenance Planning Objectives Memorandum (POM) and budget submittals.

5.1.3.2 Program Manager (PM).

a. Provides program management, policy, overall monitoring, and direction for the maintenance of ammunition.

b. Develops, coordinates, and justifies the requirements stated in the maintenance POM and budget submittals.

c. Provides peacetime, surge, and mobilization maintenance requirements and priorities to the SMCA.

d. Allocates, as appropriate, Operations & Maintenance Navy (O&MN) funding and work request orders to accomplish in-service engineering functions incident to maintenance.

e. Provides a Military Interdepartmental Purchase Requirement (MIPR) to the SMCA for maintenance work to be performed by an SMCA activity.

f. Provides funding to Fleet Weapon Stations (WPNSTAs) for maintenance work to be performed by that activity.

g. Reviews and when appropriate, approves maintenance activity requested or recommended deviations which are classified as major or critical.

h. Provides guidance to the In-Service Engineering Agent (ISEA) concerning their responsibility for items undergoing maintenance.

i. Arbitrates and resolves engineering and technical disagreements between the ISEA and the cognizant Design Agent (DA).

j. Review critical or interfacing engineering change proposals affecting items undergoing maintenance.

5.1.3.3 Design Agent. The DAs are assigned engineering and design responsibilities including development and maintenance of design documentation for modified ammunition items (including support equipment) under their respective cognizance's. Specific responsibilities and assignments are outlined in Figure 5-1-2.

5.1.3.4 In-Service Engineering Agent. The ISEA is assigned engineering responsibilities for maintenance of in-service assets. The ISEA does all the monitoring and coordination for all maintenance performed by

either the WPNSTAs or the SMCA. They are the primary interface for WPNSTAs and the SMCA for SMCA activities. Specific responsibilities and assignments are outlined in Figure 5-1-2.

5.1.3.5 Naval Operational Logistics Support Center-AMMO (NOLSC-AMMO).

a. Collects, records, and maintains the supply data essential to the maintenance process.

b. Tracks and monitors maintenance items due in from SMCA and Fleet WPNSTAs activities. Provides status to the PM and stocking points programmed to receive the material back into active inventory.

c. Generates Military Standard Requisition and Issue Procedure (MILSTRIP) prepositioned material receipt cards to alert consignee activities of shipments due-in from maintenance facilities.

d. Provides periodic reports of overdue shipments.

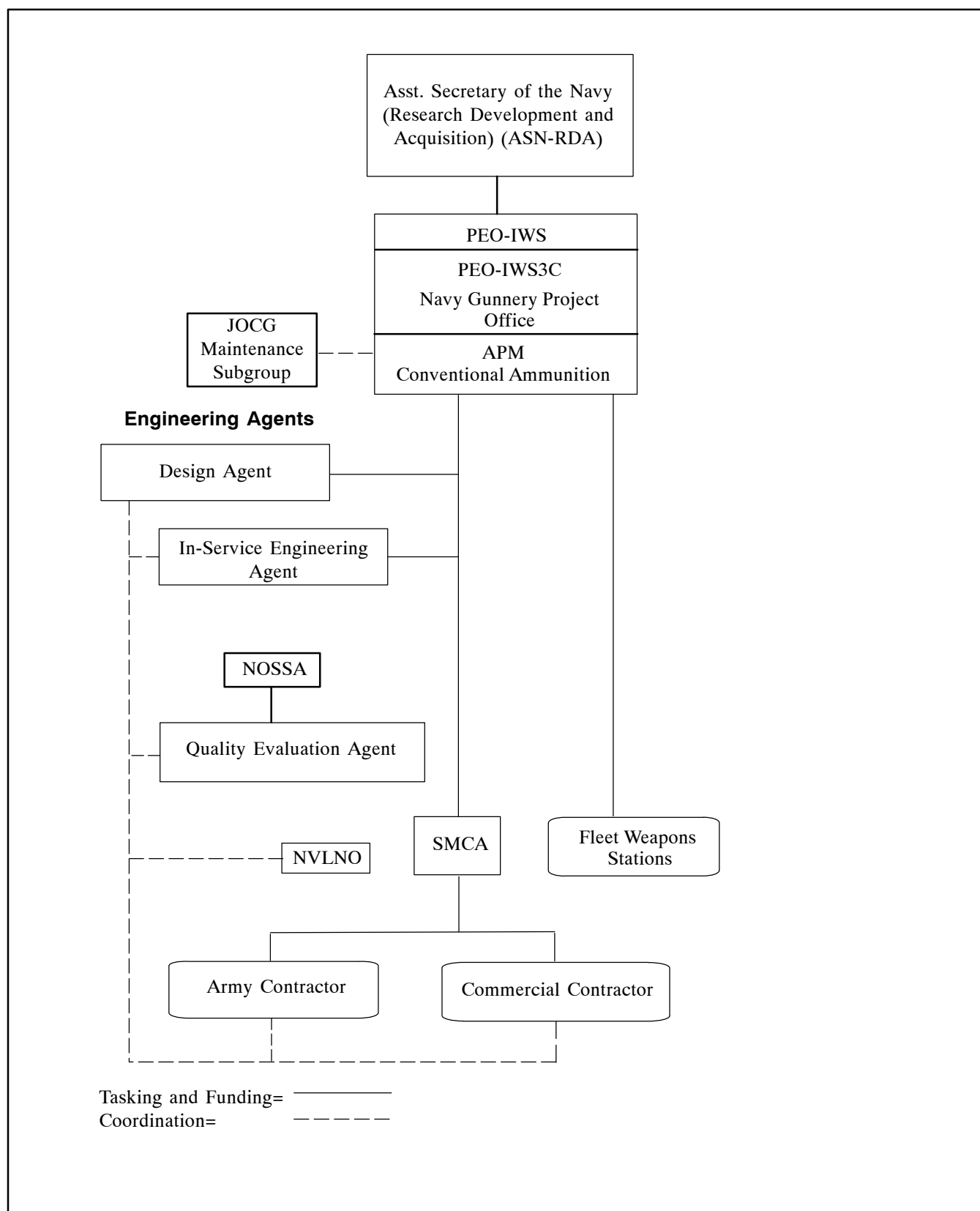


Figure 5-1-1. Maintenance Management Organizational Relationships

Organizational	Intermediate	Depot
GUN and LANDING PARTY AMMUNITION		
Breakout, visual inspection, and preparation for loading.	Packaging and/or palletizing complete round or components.	Packaging and/or palletizing complete round or components.
Compliance with NARs.	Cleaning and painting.	Component replacement.
Compliance with Technical Directives (TDs).	Compliance with NARs.	Painting and corrosion control.
Upload and download from operational commitments.	Compliance with TDs.	Compliance with NARs.
		Compliance with TDs.
PYROTECHNICS and DEMOLITION MATERIALS		
Breakout, visual inspection, and preparation for loading.	Packaging and/or palletizing complete round or components.	Packaging and/or palletizing complete round or components.
Compliance with NARs.	Compliance with NARs.	Compliance with NARs.
Compliance with TDs.	Compliance with TDs.	Compliance with TDs.
Upload and download from operational commitments.		
SHOULDER-FIRED MISSILES/ROCKETS		
Breakout and visual inspection.	Packaging and/or palletizing complete round or components.	Packaging and/or palletizing complete round or components.
Compliance with NARs.	Visual inspection of containers.	Component replacement.
Compliance with TDs.	Replacement or repair of minor components.	Painting and corrosion control.
Upload and download from operational commitments.	Compliance with NARs.	Visual inspection and refurbishment of containers.
	Compliance with TDs.	Compliance with NARs.
		Compliance with TDs.
CADs/PADs		
Breakout and visual inspection.	Breakout and visual inspection.	Breakout and visual inspection.
Install and replace.	Install and replace.	Install and replace.
Compliance with NARs.	Compliance with NARs.	Compliance with NARs.

Figure 5-1-2. Specific Responsibilities and Assignments

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CHAPTER 5.2

Maintenance Process

5.2.1 Maintenance Planning.

5.2.1.1 General Chief of Naval Operations (CNO) Guidance. The CNO has promulgated OPNAVINST 4850.1 to maximize Fleet readiness by providing policies for the programming, planning and execution of maintenance programs for Naval conventional ordnance.

a. Acquisition Program Managers (APMs or PMs) are responsible for preparing Program Objective Memorandum (POM)/Budget submissions for rework of Naval conventional ordnance shall program for maintenance of total projected unserviceable inventory as reported in Ordnance Information System (OIS-W). This shall not exceed the total requirement published in the standard Non-Nuclear Ordnance Requirements (NNOR) or the constrained NNOR whichever is the larger requirement.

(1) Those items not included in the NNOR shall have maintenance requirements based on a documented baseline such as shipfill, combat consumption, training pipeline or component attrition/failure.

b. Unfunded maintenance requirements carried forward from prior years will be phased in future years in a manner to ensure that the additional requirement can be absorbed by the maintenance facilities.

c. Ordnance whose Ready For Issue (RFI) assets exceed war reserve objectives or which are not required by the scenarios prescribed for planning will not be programmed for maintenance. Plans for long term storage of these assets will be developed to ensure adequate surveillance and protection for potential future use.

5.2.1.2 2T Cog Five Year Maintenance Plan. The 2T Cog Five Year Maintenance Plan is a comprehensive plan which identifies 2T Cog item projected (Budget year + four) maintenance requirements, projected costs and funding requirements, as well as the performing activity for maintenance. Performing activities for

planned maintenance may be either Fleet activities or Single Manager of Conventional Ammunition (SMCA) activities. In cases where maintenance is to be performed at SMCA activities, the maintenance workload identified in the Five Year Maintenance Plan will be planned through the SMCAs Integrated Conventional Ammunition Maintenance Plan (ICAMP) process.

a. The Primary Maintenance Program objective of the Five Year Maintenance Plan is to provide a complete planning document which integrates Asset Readiness Objectives and planned 2T Cog item procurements, asset usage, and asset degradation into the maintenance planning process. The plan provides a comprehensive source of maintenance requirements that identifies items to be maintained, location of rework, components required, technical documentation requirements, and funding/cost requirements.

b. Input data and devices for generation of the Five Year Maintenance Plan:

(1) Worldwide OIS-W asset data.

(2) Planned Future Years Defense Plan (FYDP) procurement, projected Navy Non-Combat Expenditure Report (NCEA) consumption, and acquisition objectives for the FYDP for material planning studies.

(3) Projected receipts from the maintenance process on retail and wholesale stocks.

(4) Projected receipts of repairable ordnance generated by Fleet-returned ordnance from projected ship offload schedules in the Receipt, Segregation, Storage and Issue (RSS&I) model.

(5) Projected repairable ordnance due to ordnance degradation from Quality Evaluation Coordinator (QEC)/Quality Evaluation Activities (QEA) data files and from U.S. Marine Corps and U.S. Navy planned test results.

(6) Average unit maintenance cost, from station stabilized rates, or Depot Maintenance Work

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Requirements (DMWR) work-hour norms from the SMCA, or from contractor maintenance rates.

c. The Five Year Maintenance Plan is published bi-annually to coincide with the submission of projected (Budget year + four) maintenance requirements, material requirements, and technical data, to the SMCA for input into the ICAMP. Publishing dates for the Five Year Maintenance Plan are as follows:

(1) 31 January. Five Year Maintenance Plan published for initial submission to SMCA for the draft ICAMP.

(2) 31 July. Five Year Maintenance Plan updated to reflect any new/updated maintenance requirements prior to the final ICAMP.

d. The Five Year Maintenance Plan consists of the following documents:

(1) Five Year Major Maintenance Plan. This document contains the latest planned maintenance projects, and is based on such criteria as funding constraints, mission requirements, and component availability. The Five Year Major Maintenance Plan identifies location of rework (Fleet activities or SMCA facility), and estimated unit costs for maintenance of planned 2T Cog items.

(2) Technical Documentation Requirements/Status Report. This document identifies the current status of the required technical documentation necessary to meet the Maintenance Plan(s) schedule.

(3) Five Year Component Requirements List as Identified by Project. This document is a listing of components that are to be provided as Government Furnished Material (GFM) to the maintenance activities.

(4) Component Shortfall List. This document is a listing that identifies component shortfalls which may necessitate procurement actions.

(5) Five Year Maintenance Component Plan. This document provides backup data utilized in the generation of the Component Shortfall List.

5.2.1.3 Integrated Conventional Ammunition Maintenance Plan (ICAMP). The ICAMP presents an integrated wholesale ammunition maintenance plan containing the complete maintenance plan of each Service

for next five fiscal years (including the Navy's 2T Cog five year maintenance plan). The final SMCA publication is the result of a joint service process. The ICAMP covers both reimbursable and non-reimbursable maintenance on a line item basis. The ICAMP is the document used for forecasting and planning workload. The ICAMP data is provided electronically. The schedule for developing and publishing the ICAMP is as follows:

a. 31 January - Services submit projected maintenance requirements (budget year + 4) and material requirements and technical data (budget year + 1) to the SMCA.

b. 30 April - SMCA provides first draft ICAMP to the services.

c. 15 May - Services review recommendations/resolutions plus provide program changes.

d. 15 July - Semi-final ICAMP to the Services from SMCA for concurrence.

e. 31 July - Quad-Service Maintenance Review (QSMR) conducted. Concurrence/changes to SMCA from Service(s).

f. 12 August - Final ICAMP printed.

g. 1 September - Final, approved, coordinated ICAMP submitted to OSD through HQ, Department of the Army (HQDA), and copies distributed. Additionally, subsequent budget year + 4 planning cycle begins.

5.2.2 Maintenance Cost Reimbursement.

5.2.2.1 Major Maintenance.

a. Major maintenance performed by a Fleet Weapons Station (WPNSTA) on Navy ammunition is on a reimbursable basis. Requirements and cost are negotiations by the PM and the WPNSTA. Funding is provided by the PM to the WPNSTA.

b. Major maintenance performed by the SMCA on Navy wholesale stocks is on a cross-service (reimbursable) basis. The Joint Ordnance Commanders Group (JOCG) Joint Conventional Ammunition Policies and Procedures (JCAPPs) have been approved by the Office of the Under Secretary of Defense (Acquisition, Technology and Logistics) as an alternative to the corresponding chapters of the DoD 5160.65-M,

Single Manager for Conventional Ammunition (Implementing Joint Conventional Ammunition Policies and Procedures). Requirements and cost negotiations are submitted by the PM to the SMCA in accordance with JCAPP 06, Maintenance. A funding account is provided by a MIPR, and billing is submitted by the SMCA when work is completed.

5.2.2.2 Minor Maintenance.

a. Minor maintenance performed by a Fleet WPNSTA on Navy ammunition is performed on a reimbursable basis, in the same manner as major maintenance at a Fleet WPNSTA.

b. Minor maintenance performed by the SMCA on Navy wholesale stock is on a common-service basis (non-reimbursable) as stated in JCAPP 06, Maintenance. The SMCA plans and budgets for storage and warehousing of all material in its custody. Storage and warehousing funds are used for storage and minor maintenance processes. These funds are allocated by the SMCA to storage activities based on projected workload. Semi-annually, the Services will submit a prioritized list of assets requiring upgrade through non-reimbursable maintenance. This list will be submitted in January with their ICAMP data. It will be finalized in August in conjunction with the Quad Service Maintenance Review (QSMR).

5.2.3 Maintenance Documentation.

5.2.3.1 Depot Maintenance Work Requirement (DMWR). The DMWR is developed by the ISEA to convey the mandatory technical information on ordnance maintenance and demilitarization operations to maintenance activities, in accordance with MIL-PRF-63012B(1). The DMWRs show special safety, technical, and production inspection requirements; tooling and equipment to be used; methods; procedures; materials; and document references. Maintenance activities use the DMWR to write a Standard Operating Procedure (SOP) for the assigned maintenance operation.

5.2.3.2 Configuration Management (CM). CM must be maintained through all maintenance actions whether on a single ordnance item or a complete ammunition lot. The processes below must be maintained from their initiation during the acquisition process described in Section 3.4.

a. Approval for Navy use. If the maintenance procedure is taking an existing item in long supply and converts it to a new configuration, the new configuration must be approved by the Weapons Systems Explosives Safety Review Board (WSESRB) prior to the conversion.

b. Type Classification. If the maintenance procedure is changing any of the functional characteristics of the ordnance item, the type classification must be reviewed to see if any changes are required.

c. Hazard Classification. If the maintenance procedure is changing any of the explosive characteristics of the ordnance item, the hazard classification must be reviewed to see if any changes are required.

d. Lot Numbering/Control Numbers. All maintenance actions must be reviewed to determine if the actions require changes in lot numbering and/or control numbering, due to component replacement etc.

e. Deviations, and Engineering Change Proposals (ECPs). Deviations, and ECPs are handled in the same manner as during the production process to maintain a complete audit trail.

f. Automated Data List (ADL). The ADL is the controlling configuration management document. All changes which occur during maintenance must be properly recorded in the ADL.

5.2.4 Maintenance Execution. The essential elements to begin execution of a maintenance assignment are funding from the PM, a DMWR from the ISEA, and the assets on which the maintenance is to be performed (including any required replacement components).

5.2.4.1 Scheduling. If the maintenance is to be performed by a Fleet WPNSTA, the ISEA will select the site and schedule the maintenance as coordinated with the PM. If the maintenance is to be performed by an SMCA activity, the SMCA will select the site and schedule the maintenance as coordinated with the PM. If the assets are not located at the maintenance facility, the Inventory Manager (IM) at Naval Operational Logistics Support Center-AMMO (NOLSC-AMMO) will be directed by the PM or ISEA to transfer the assets to the maintenance facility in time for the scheduled maintenance.

5.2.4.2 Maintenance Status. The following reports are available to keep the PM/ISEA informed of the

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maintenance status and when the assets will be returned to the active RFI inventory.

a. Ammunition Maintenance Progress Reporting System (AMPRS). The report is submitted monthly to the ISEA at NSWCDIV Crane. It is used by all surface ammunition maintenance activities to facilitate reporting maintenance progress on a timely basis. This data in turn is utilized to formulate progress reports for the PM. The AMPRS report contains the following data on all funded maintenance projects.

(1) DoDIC, OIS Control Group Family, and any Local Control Numbers.

(2) Quantity.

(3) Condition Code.

(4) Unit Cost.

(5) Total Funded Cost.

(6) Monthly Planned Schedule.

(7) Inducted Units.

(8) Accepted Units.

(9) Actual Unit Cost on Completed Items.

(10) Actual Work-hours.

(11) Month Complete.

(12) Funds Balances/Overruns.

(13) Remarks, with detailed explanations of fallout, overruns, deviations, changes in Scope of Work, or any other data crucial to the funded assets.

b. SOSMA Form 38s. For maintenance and production within the SMCA, monthly delivery status reports are furnished on SOSMA Form 38s to the requiring Service, advising of the progress. See Volume 3, Chapter 3.3 for information on Form 38s.

c. Procurement/Renovation/Production File. As IM, NOLSC-AMMO maintains a central Procurement, Renovation, and Production (PRP) status file for ordnance items, in OIS-W. See Volume 3, Chapter 3.3, for information on this file.

d. Prepositioned Material Receipt Cards (PMRC). NOLSC-AMMO's loading of delivery schedules into the OIS-W maintenance files enables the establishment of due-ins and the generation of PMRCs to prospective receiving field activities. See Volume 3, Chapter 3.3 for information on PMRCs.

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CHAPTER 6.1

Inventory Management System Overview

6.1.1 General. This chapter addresses functional areas of inventory management. This includes the distribution and stocking of non-nuclear ordnance; and requisitioning, returning, issuing, receiving, and storing of ordnance items.

6.1.1.1 Asset Allocation. The inventory management functions pertain to the management of a multi-billion dollar inventory consisting of a wide range of end items and components. These items represent the aggregate material on hand, or due in, needed to satisfy the Total Munitions Requirement (TMR), the sum of War Reserve Material Requirements (WRMR) and Training and Testing Requirement (TTR) stocking objectives, afloat and ashore. Total Fleet requirements are allocated in accordance with OPNAV allocation letters, and within budget constraints. Shortages to these allocation goals are satisfied mainly through new production or maintenance actions. Assets due in from production are consigned on a “fairshare” basis to satisfy claimant WRMR/TTR shortfalls. Conventional ordnance is allocated and distributed to the afloat forces to fill allowances of combat and auxiliary ships. A distinctive feature of the ordnance material management system is the positioning of retail replenishment stocks at tidewater locations to facilitate over-the-dock accessibility for onloading and offloading of combatants and auxiliary ships.

6.1.1.2 Perspective. The primary focus of inventory management is to develop an asset distribution plan to best meet the needs of the Fleet and all other NCEA users, and to manage the available ordnance assets according to that plan within the fiscal constraints applied by the Navy budget. Maintaining the right ordnance, in the right material Condition Code (C/C), at the right stockpoint (with accurate visibility of the assets in the automated inventory systems) at each of these retail stock points a primary management challenge.

6.1.1.3 Organizational Relationships. The organizations involved in inventory management are spread throughout the Navy organizational structure. Figure 6-1-1 identifies the organizations involved in the

inventory management processes and their relationship to each other. The following sections will describe the inventory management processes and identify the organizational responsibilities for those processes.

6.1.2 Ordnance Distribution and Stocking.

6.1.2.1 Inventory Stockage Concept. DoD policy states that support activities will provide maximum material logistics support for approved forces under an inventory stockage concept that minimizes supply response time. Stockage for each material category will be provided by achieving a balance between required supply performance and economy, consistent with peacetime operations and combat readiness considerations.

6.1.2.2 Supply Source Levels. To facilitate maximum inventory support for approved forces, the customer has three levels of supply source to draw from. The first level is from their own shipfill, mission load, or service ammunition allowance which has been tailored to their mission. This supply is carried with them to draw from, wherever they deploy. The second level of supply source is retail-resupply stocks from cargo loads aboard Combat Logistic Force (CLF) ships and some overseas secondary stocking points, or by cross-decking from other combatants. This supply is available to the customer through underway replenishment or overseas port visit. The third level of supply source is from the Continental United States (CONUS) primary and secondary stocking points. This supply is available to the customer primarily pierside or at anchorage, and can be from either retail stocks, or wholesale stocks which have been transferred from inland wholesale storage to the retail stockpoint for transfer to the customer. These CONUS primary and secondary stocking points support the Fleet by filling the ship-fills and mission loads for combatant ships initially and “topping them off” as required, at dock-side or by lighterage. Auxiliary ships such as the AEs, AOE's, and AOR's are out-loaded by these same stocking points to provide the retail-resupply afloat replenishment to deployed combatant forces.

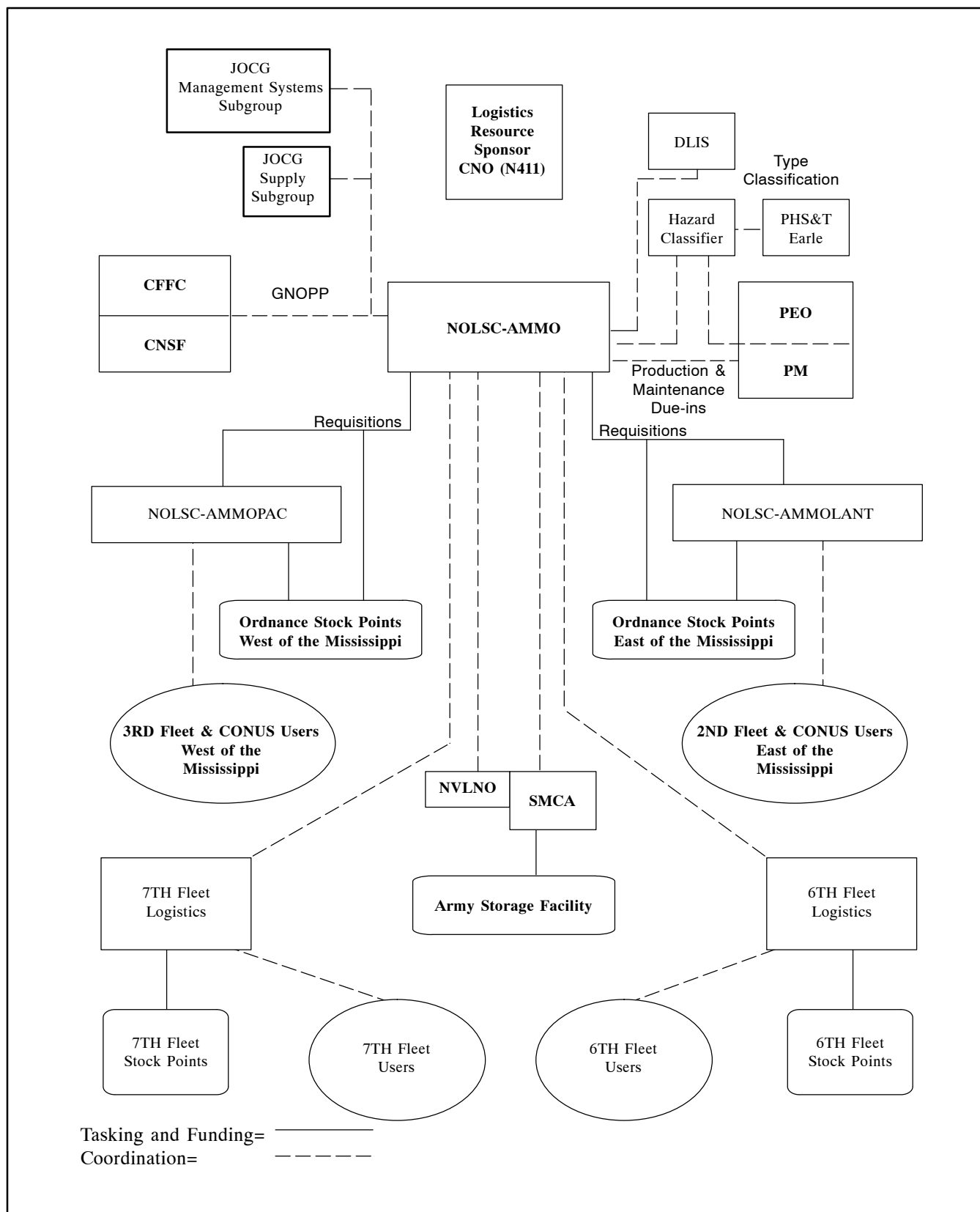


Figure 6-1-1. Inventory Management Organizational Relationships

6.1.2.3 “Pull” Distribution. As a rule, the supply distribution system for non-nuclear ordnance operates as a “pull” system, in that material for stock in support of end-use requirements is drawn down from the supply source. By this system, ordnance items needed to support allowances and/or satisfy noncombat expenditures are requisitioned by the local Weapons/Ordnance Officer.

a. The pull system depends on local initiative in determining future shortages to requirements and initiating material requests in a prescribed manner. The following are examples of requirements that are requisitioned (“pulled”) from the supply source: stockpoint requirements for authorized load plans and allowance items, material to support ordnance evaluation and maintenance projects, and replacement of issues to ships and local activities from stock.

b. It is important to note that requisitions for stock do not necessarily trigger redistribution actions between stockpoints. In situations where stock relocation between the holding and requiring activities is uneconomical, requisitions for replenishment may be satisfied by assets due from procurement or maintenance, by statistically earmarking a portion of the assets for the requiring activity. This earmarking is accomplished by the Naval Operational Logistics Support Center (NOLSC-AMMO) Inventory Manager (IM) working with the Acquisition or Maintenance Manager to modify the destination(s) listed on the procurement or maintenance contract.

6.1.2.4 “Push” Distribution. In contrast to pulling (requisitioning) requirements, items from production or maintenance are pushed (allocated) to activities. Also items may be pushed to activities to accommodate major changes or readjustments to the Fleet’s stock distribution patterns. The FLT Combatant Commanders provide direction for the positioning of shipfills, WRMR, and TTR stocks.

6.1.3 Automated Systems Support. To assist in the management of ordnance assets at retail stocking points and user activities, automated systems have been developed and installed throughout the Fleet and support activities. The Retail Ordnance Logistics Management System (ROLMS) has been developed to operate on an “open system environment” which will allow the users to place it on Windows operating systems, regardless of hardware platform. Specifically, the ROLMS application utilizes the Oracle Relational Data Base Management System (RDBMS) and operates in a client/server environment or in a stand-alone

Personal Computer (PC) mode under Windows 95, Windows 98, Windows NT, or Windows 2000. Additional Windows operating systems are evaluated for ROLMS compatibility as they are made available. In the client/server environment, the Oracle RDBMS resides on the server, which can be a UNIX or Windows NT Server operating system. The client PC workstations can run any of the Windows 95, 98, NT or 2000 operating systems that utilize Oracle SQL*NET software to communicate with the RDBMS. Within the Navy Marine Corps Intranet (NMCI) ROLMS appears to function satisfactorily in the client/server environment only. Small activities that require a stand-alone installation would need to place it on a PC other than an NMCI PC. Present estimates are that in FY-06 a migration of ROLMS to a fully web based environment within the Ordnance Information System (OIS) will begin. When the migration is completed any PC on NMCI or otherwise, with a browser and access to the Internet, will be able to use ROLMS.

6.1.3.1 ROLMS is an ordnance inventory and management system designed for use by all Marine Corps and Navy shore and afloat activities.

a. ROLMS is designed and centrally managed by NSWCDIV Crane to provide a multi-level automation tool to be used by any retail ordnance stockpoint or user activity/unit. Due to the system being designed for an “open systems environment,” the computer hardware is no longer centrally managed. The system is tailored to best support each individual command’s needs by loading only the modules and sub-modules that will be used. This flexibility improves the support to the Fleet and reduces system maintenance cost. As an individual command’s mission changes, the system can change with it by adding or deleting modules as required. ROLMS stand-alone operates on a PC, with the ROLMS Client/Server version providing client/server networking capabilities for multi-user access to the database. The same software is available to all users, regardless of the equipment operating environment.

b. ROLMS users are able to customize the system to best fit their activity needs. Standardized software for all configurations allow for selectable functionality. An activity can choose modules when it is available and if their system has enough memory, disk space and processor speed. The ROLMS application software can include the following functionality.

- (1) Inventory - to the specific grid location.

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- (2) Requisitioning.
- (3) Issue/Receipt Reporting.
- (4) Expenditure Reporting.
- (5) Asset Maintenance.
- (6) NAR Processing.

(7) Transaction Reporting (either Ammunition Transaction Reporting (ATR) or Transaction Item Reporting (TIR)).

(8) Space Management - including Net Explosive Weight (NEW) Management for Explosive Arc and Compatibility Management.

- (9) Load Plan Management.
- (10) Excess/Disposal Processing.
- (11) DD Form 1348-1A and shipping labels.
- (12) Bar Code Processing.

c. ROLMS interfaces with various systems to exchange data and information. Specifically:

(1) NOLSC-AMMO Ordnance Information System-Wholesale (OIS-W) for Navy and Marine Corps aviation ordnance inventory data.

(2) Marine Ammunition Accounting and Reporting System (MAARS II) for Marine Corps ground ordnance inventory data.

(3) Total Ammunition Movement Management System (TAMMS) for internal activity transportation.

(4) Transportation Coordinator's Automated Information for Movement System II (TCAIMSII) for support of movement to and load planning of Navy Amphibious Ships and Maritime Prepositioned Force (MPF) Ships.

(5) Defense Transportation Tracking System (DTTS) for ordnance transportation satellite tracking.

(6) Combat Ammunition System (CAS) for United States Air Force (USAF) assets reported in ROLMS.

d. ROLMS provides for numerous ways of exchanging data with other systems, including File Transfer Protocol (FTP), Streamlined Automated Logistics Transmission System (SALTS), and Defense Automated Addressing System (DAAS). Activity communication access is dependent upon the activity's communication capabilities.

6.1.3.2 Total Ammunition Movement Management System (TAMMS).

a. TAMMS is used to manage a station-wide Net Explosive Weight (NEW) load plan.

b. TAMMS was designed by Naval Weapons Station Seal Beach Det., Concord to provide a tool to Naval Weapons Stations (NWS) for ordnance distribution management within the station. The computer software is centrally managed by NWS Seal Beach Det., Concord. TAMMS maintains an automated load plan that contains all valid conveyance locations and the NEW allowed at each location. Locations may be grouped into arcs or viewed separately. As railcars, trucks, barges, ships, or other conveyances are moved, TAMMS compares their laden NEW to the NEW allowed in a specified area. TAMMS generates immediate online warning messages to operators when NEW limits may be exceeded as the result of a proposed conveyance move. Warnings are also generated for a number of other conditions, including over/under-loaded conveyances and material incompatibility. TAMMS also records the fire hazard, security classification, and transportation codes for all material stored in conveyances. This will ensure that conveyances will be spotted in appropriate security areas, and provide fire fighters with valuable hazard information.

6.1.3.3 Defense Automatic Addressing System Center (DAASC). <https://www.daas.dla.mil/daashome/>. The center's system located in Dayton Ohio acts as the central distribution control point for DoD message traffic. The system receives message traffic from all sources and directs it to the appropriate destination (s), by message or electronically through dedicated phone lines. DAAS directs ATRs to the appropriate destination(s) without any processing actions. DAAS processes the other ordnance transactions received (i.e., requisitions) and then directs them to their appropriate destination(s).

6.1.3.4 Army Systems. The Army has three systems to support wholesale ordnance management.

a. Standard Depot System (SDS). SMCA ordnance activities use this system to communicate directly with OIS-W through DAAS on Navy Ordnance items not assigned to the SMCA, and through the CCSS on Navy ordnance items assigned to the SMCA, which are located at that activity. SDS is the source of raw inventory data at the various U.S. Army depot storage activities.

b. Visibility Information Storage Tool for Ammunition (VISTA) is an interface to enable users to access SDS data in a user-friendly web-based format. It is commonly used by Army plant and depot personnel, Army, USMC, USAF, Navy HQ and NOLSC-AMMO personnel. Vista is maintained by the Defense Ammunition Center (DAC). The SDS data is updated nightly. It requires a password and login ID. It can be accessed at <https://www2.dac.army.mil/vistalogin.asp> for users with .mil or .gov registered IP addresses, or

at <https://www4.dac.army.mil/vistalogin.asp> for users with an at .com or not registered IP addresses.

c. Ammunition Stockpile Reporting Program (ASRP) is in use at the Joint Munitions Command, Rock Island, IL. It has world wide coverage fed from the SDS. It is similar to VISTA such that it provides a user-friendly interface to access the SDS data. However, it has broader functional capability than what is available from VISTA. ASRP's SDS data is also updated nightly.

d. Commodity Command Standard System (CCSS). This is the headquarters level management system similar to OIS-W. The system resides at the Joint Munitions Command (JMC), Rock Island, IL., and communicated electronically with OIS-W through DAAS on SMCA assigned ordnance located at SMCA activities.

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CHAPTER 6.2

Allowance Lists

6.2.1 General.

6.2.1.1 Background. U.S. Navy combatant ships are constructed to accomplish specific missions which include certain capabilities such as antisubmarine warfare, anti-air warfare, and surface-to-surface warfare. Based on the armament and weapons systems selected by the Ships Characteristics Improvement Panel to accomplish the required mission, and CNO guidance for minimum rounds per weapon or per ship and type ratios (projectile/powder mix), the Type Commander (TYCOM), Commander Naval Surface Forces (CNSF) or the Major Claimant sends an ammunition allowance establishment message to Naval Operation Logistics System Center (NOLSC-AMMO). A provisional allowance list is prepared by NOLSC-AMMO and distributed for validation. This is done 60 days prior to the completion of the fitting out period for submarines.

6.2.1.2 Purpose. The allowance lists represent a portion of the Fleet combat requirements developed during the Department of Defense Munitions Requirements Process (DoDMRP) described in DoDI 3000.4. The prime purpose is to specify the individual command's portion of the combat ordnance requirement to meet the assigned threat. The requirements determination process, described in Chapter 2.3 of this volume, builds on this, along with other factors. The secondary purpose, used along with the annual Non-Combat Expenditure Allocation (NCEA), is to provide the NOLSC-AMMO Inventory Manager with a control tool to authorize or deny requisitions received from the Fleet.

6.2.2 Types of Allowances.

6.2.2.1 NAVSEA Allowance Lists (30,000 Series). An individual allowance list is prepared for each ship in the active and reserve Fleets, for certain Fleet groups, detachments, units and shore activities, and for Advance Base Functional Component (ABFC) (U.S. Naval Construction Force) initial outfitting. NOLSC-Ammo loads the NAVSEA 30,000 series allowance data in the NOLSC-AMMO Ordnance Information System-Wholesale (OIS-W). As changes and adjustments to service allowances occur, revised NAVSEA Allowance Lists are suffixed to indicate revisions (e.g., the first revision to

NAVSEA List 31,000 is 31,000A). Separate allowance lists called cargo load or mission load allowances are issued for ships that carry ordnance in support of other Fleet units. Cargo and mission allowance quantities are determined by Commander Fleet Forces Command and their TYCOMs e.g., CNSF and other Major Claimants. The various allowance lists are described as follows:

a. Shipfill Allowance Lists. NAVSEA lists 30,000 through 33,999 series. An approved war allowance of ordnance required to support:

- (1) Ship's own permanently installed armament.
- (2) Ship's authorized small arms weapons.
- (3) Ship's distress and signaling pyrotechnic requirements.

b. Shipfill allowance lists contain full wartime allowances of service ordnance designed to fill the ship's magazines to capacity, without regard to ordnance item availability in stock.

c. Provisional Allowance Lists. COMNAVSEA-SYSCOM lists 30,000 through 33,999 series. A provisional allowance list is a preliminary listing of an initial shipfill allowance of service ordnance prepared and forwarded to the ship and the TYCOM (appropriate "Forces" Command e.g., surface, air, or submarine) by NOLSC-AMMO for validation of compatibility with armament systems and stowage capability. Shipfill allowance lists replace provisional allowance lists after validation by the Fleet Commanders.

d. Cargo Load Allowance Lists. NAVSEA lists 34,000 through 34,999 series. An approved listing of ordnance (all cogs) carried as cargo for underway replenishment (UNREP) issue to support other Fleet units, Cargo load allowances are for Military Sealift Command (MSC) ships, e.g., TAEs, and are issued as a separate and additional list to the MSC ship's own shipfill allowance.

e. Mission Load Allowance Lists. NAVSEA lists 34,000 through 34,999 series. An approved war allow-

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ance listing of ordnance to be carried in support of specialis support/operational requirements of CVN's for aircraft squadrons based aboard, and by ASs for submarines assigned. Mission load allowances are issued for aircraft carriers, maritime pre-positioned ships, amphibious warfare ships, and submarine tenders as separate and additional lists to their shipfill allowance lists. The mission load includes Special Warfare Loads, EOD loads, or U.S. Marine Corps load.

f. Service/Miscellaneous (Fleet Activity) Ordnance Allowance Lists for Fleet Groups, Detachments, Teams-NAVSEA Lists 38,000 through 39,999 series. A listing of full war allowances authorized to an activity (shore station) for it's own use based on the armament and mission of the activity. Typical Fleet elements and activities with service allowance lists are:

- (1) Explosive Ordnance Disposal Groups (EODGRUs).
- (2) Explosive Ordnance Disposal Detachments (EODDETs).
- (3) Mobile Construction Battalions (MCBs).
- (4) Beach Master Units (BMUs).
- (5) Naval Security Group Activities.
- (6) Naval Communications Stations.

In some cases, such as for Amphibious and Mobile Construction Battalions (ACBs and MCBs), sufficient ordnance for a number of days support is included in the allowance to provide for deployment to remote areas with no nearby source of replenishment. Fleet elements deployed to forward or remote areas will retain custody and provide storage for the ordnance in their service allowance. Fleet elements on deployment to theaters with nearby Navy ordnance storage activities should store their ordnance at these activities as reserved stocks. Service allowance ordnance for deployable elements in Continental United States (CONUS) may be pre-positioned at nearby Navy ordnance storage activities for outloading on deployment, or pre-positioned at activities in the theater assigned.

6.2.2.2 Allowance Change Request Procedures.

a. As platforms, armaments or weapons systems change, it becomes necessary to modify existing NAVSEA 30,000 series allowance data. Per NAVSUP P-724, Fleet units or other holders of the allowances submit

requests for changes as the need arises. Allowance change requests are processed the same regardless of the type of allowance list. All Fleet or activity NAVSEA 30,000 series allowance change requests are submitted to NOLSC-AMMO via the operational chain of command, including Commander Fleet Forces Command (CFFC), with parallel distribution to the appropriate Acquisition/Program Manager and NAVSURFWAR-CENDIV Crane for any 2T Cog Conventional Surface Weapon items. Confidential Naval message format is used for the submission of allowance change requests. The request includes the Unit Identification Code (UIC) of the unit requesting the change, Navy Ammunition Logistics Code (NALC), Activity Classification Code (ACC) requested, quantity (current & revised) and justification for the allowance change. The message is addressed to the unit's immediate superior in command, with an information copy to NOLSC-AMMO and NAVSURFWAR-CENDIV Crane. NOLSC-AMMO is included as an information addressee on all allowance correspondence for tracking and approval purposes.

b. Fleet Tailored allowances are temporary modifications to the NAVSEA 30,000 series combat allowances based on theater commander and specific operational requirements. It is the responsibility of the CFFC to establish, maintain, monitor and delete these allowances in the Ordnance Information System (OIS-W) when no longer required. NOLSC-AMMO will assist in monitoring and deleting Fleet tailored allowances.

6.2.3 Global Naval Ordnance Positioning Plan (GNOPP).

a. Naval ordnance positioning planning and execution embodies a global perspective evolving and expanding in concert with development of a joint Navy/Marine Corps model identified as the GNOPP. Per OPNAVINST 8010.12 (series) the GNOPP provides for distribution of ordnance to forward and CONUS sites based on Defense Planning Guidance and assessments of the most likely Major Theater War or Small Scale Contingency scenarios. The GNOPP considers storage capacities, most efficient resupply of supported warfighters, and minimization of strategic lift requirements.

b. The GNOPP is the authorized naval ordnance positioning process. The GNOPP process model is governed by business rules/planning factors (ship-fill, training, shore-based units, resupply) that prioritize and allocate available ordnance by mission and purpose. The CFFC and Marine Force Commanders (MARFORs) are responsible for the GNOPP method-

ology and consolidation of warfighter, i.e. service components, inputs. The GNOPP model is managed by the NOLSC-AMMO based on these inputs. The GNOPP will be issued annually as a two-year plan in a formal Memorandum Of Agreement (MOA) that is approved by CNO (N3/N5, N4) and CMC (A, CS, AVN, PPO) by 30 September each year. The business rules can be modified to allow changes to global distribution as required by OPLAN/CONPLAN revisions.

6.2.3.1 Chief of Naval Operations (CNO).

a. Establishes the basic operational missions capabilities for all active and reserve ships, Fleet groups, units, detachments, teams and shore activities.

b. As system improvements evolve, approves the upgrade of existing ships' capabilities.

c. Provides quantitative and type ratio (projectile/powder mix) guidance for ordnance to be included in shipfill and activity service allowances.

6.2.3.2 CFFC and MARFORs.

a. Submit to NOLSC-AMMO, proposed changes to NAVSEA 30,000 series allowance lists for shipfill, mission loads, and cargo loads based on CNO approved combat requirements.

b. Develop tailored allowance lists from which afloat activities will submit requisitions to meet Unified Combatant Commander requirements.

6.2.3.3 Approval and Processing of Allowance Change Request Procedures.

a. Upon receipt of allowance change requests and endorsements thereto, NOLSC-AMMO reviews the package for required updates based on all endorsements, verification of current NALC and associated components, and quantity in accordance with unit pack.

b. When the NOLSC-AMMO review is completed the changes are made to OIS-W and a message is prepared to release an updated allowance list with new revision letter and date, via confidential Naval message to the originator and the appropriate chain of command.

6.2.3.4 PEOs/PMs. Ordnance PEOs/PMs will validate the portion of the allowance list covering their

ordnance, when received from NOLSC-AMMO for review. They will also include substitutes, alternatives, and preferred configurations.

6.2.3.5 Fleet Units and Shore Activities.

a. Fleet ships validate their provisional allowance lists and advise NOLSC-AMMO of any discrepancies between allowance items and installed armament, and any deficiency in capability to properly stow allowance quantities in ship's magazines.

6.2.4 Applicability of Allowance Lists.

6.2.4.1 General.

a. Shipfill Allowances. Shipfill allowances provide the ship with a supply of preferred ordnance in support of the ship's mission. Allowances should contain maximum quantities consistent with ship's magazine capacity, to ensure maximum substantiality without replenishment.

b. Service ordnance authorized for expenditure to meet NCEA should be used from the onboard service ordnance allowance. It should be replenished in accordance with CFFC policy, and their TYCOM, directives, thus rotating stocks.

c. Ordnance designed for training only, such as Variable Time (VT) Non-fragmenting projectiles or Target Practice (TP) projectiles, are excluded from service ordnance allowances. Exceptions to this are certain dummy projectiles and charges for cycling mounts that are part of a ship's permanent equipment, and TP rounds for firing through muzzle covers. Training ordnance for NCEA should be loaded aboard in addition to, or in place of, service ordnance prior to an exercise or demonstration, and replaced with service ordnance in accordance with CFFC and their TYCOM, directives.

d. Service Ordnance Allowances for Fleet Groups, Detachments, Teams, etc. Service allowances for these Fleet elements are generally predicated on a mission scenario basis, in terms of rounds per day.

e. Service Ordnance Allowances for Activities Ashore. These allowances are based on amounts required to perform the task (i.e., sufficient destructors/destroyers for the equipment and documents to be destroyed, or ordnance per weapon to be used by civilian or military guard force).

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f. Cargo Load and Mission Load Allowances. These are developed by CFFC and their TYCOMs, initially on commissioning of the ship and are promulgated by NOLSC-AMMO as NAVSEA 34,000 series lists. NAVSEA cargo and mission load allowances are standard loads used for planning purposes (i.e., for prepositioning standard loads and for mobilization planning). Changes required by CFFC to NAVSEA cargo and mission allowances for mobilization planning purposes are made by formal request to NOLSC-AMMO for a NAVSEA List back to their interim allowances or 30,000 series allowances. Tailored allowances are promulgated by CFFC and the TYCOMs, not to exceed the normal six month deployment of units.

g. Ship-fill, Cargo, and Mission Load Tailored Allowances. Fleet tailored allowances are temporary modifications to the NAVSEA 30,000 series combat allowances based on theater commander and specific operational requirements. It is the responsibility of the authorized FLTCOM to establish, maintain, monitor and delete these allowances in OIS-W when no longer required. NOLSC-AMMO will assist in monitoring and deleting Fleet Tailored allowances. Affected units may submit requisitions against Fleet Tailored allowance quantities.

6.2.4.2 Requirements Determination for Acquisition.

a. Shipfill allowance lists contain the full range of level-of-effort service ammunition and threat-oriented service weapons in amounts for ships' installed armament, and assigned weapons in amounts to fill the ships' magazines to capacity without regard to ordnance availability. These allowance quantities may be considered as each ship's long-term notional combatant shipfill. Shipfill allowance quantities are used in the determination of requirements for the Programming Objective for all ordnance items not covered in the NNOR and the SECDEF Defense Planning Guidance. Primarily, these are medium caliber, pyrotech-

nic, demolition, and small arms and landing party ammunition items.

b. Service ordnance allowances for groups, detachments, teams, and activities are used for determining Programming Objective requirements to the extent that these deployable activities are included in OPLANs.

6.2.4.3 Requisitioning Guide and Readiness Baseline.

a. All shipfill allowance lists that have not been modified by a tailored allowance issued by CFFC, and their TYCOMs, may be used as requisitioning guides for obtaining an initial outfit on-load upon completion of restricted availability or an allowance replenishment.

b. In the absence of a tailored allowance, the shipfill allowance list is the baseline reference point for comparison of onboard inventory to determine the current readiness state. For mobilization planning purposes, shipfill, cargo, and mission load 30,000 series allowance lists are used to determine readiness state. Any shortfall to these allowance quantities is termed a "Top-Off" requirement.

c. Cargo and mission load allowances are also used as requisitioning guides. Cargo and mission loads may have as many as two allowances - tailored, or NAVSEA 30,000 series. Requisitioning should be based on the tailored allowance or, when directed by CFFC, and their TYCOMs, on the NAVSEA 30,000 series allowance list. CFFC/TYCOM tailored allowances may contain NCEA ordnance.

d. Determination and reporting of the state of readiness is to be accomplished using tailored, or NAVSEA 30,000 series allowance lists, in that order, or as directed by CFFC. Upon mobilization, the NAVSEA lists will be used to determine top-off requirements for level-of-effort items.

CHAPTER 6.3

Cataloging and Item Identification Systems

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CHAPTER 6.3

Cataloging and Item Identification Systems

6.3.1 Federal Cataloging System (FCS).

6.3.1.1 General.

a. The FCS is a commodity classification system designed to identify, describe, classify, and record all items entering the federal supply system. The FCS is mandated by Title 10, United States Code, Chapter 145. DoD 4100.39-M, Federal Logistics Information System (http://www.dlis.dla.mil/flis_procedures.asp) sets forth the Federal Catalog Program Policy and responsibilities for implementing the FCS, and outlines its objectives:

(1) Provide a uniform system of item identification that describes, classifies, and numbers each item in the FCS that it is identified by a single National Stock Number (NSN).

(2) Enhance the operational readiness of DoD organizational components by improving methods of item identification, by improving processing efficiency, and by providing accurate and timely publication of catalog data.

(3) Provide the means for monitoring the range and numbers of items entering the supply system in order to prevent their proliferation and ensure that management systems can operate with the minimum number of items essential to support.

(4) Assemble and maintain integrated cataloging records which include the characteristics and selected technical and material management data for each item of supply.

(5) Record and maintain item interchangeability and substitutability information.

(6) Promote accessibility and interchange of FCS data in DoD and with other federal departments and agencies and participating NATO and non-NATO Countries.

(7) Ensure the optimal level of cataloging systems computability and integration with the mission

needs and data requirements of the various DoD organizational components and other FCS participants.

b. DoD 4100.39-M assigns the responsibility for the management and administration of the FCS to the Director, Defense Logistics Agency (DLA). These responsibilities include the development, review, approval, and uniform implementation of the FCS operating principles, rules, and procedures; the establishment of an automated information system; and the development and publication of documentation required to operate the FCS. The Defense Logistics Information Service (DLIS) <http://www.dlis.dla.mil/default.asp> in Battle Creek, Michigan, is the central repository for the cataloging records pertaining to all items of supply stocked in the supply system.

c. All processes, services, and publications relating to the cataloging functions of item management are subject to the policy direction contained in DoD 4100.39-M. The logistic functions addressed by the FCS include item identification, design standardization, item entry control, supply, maintenance, material planning, provisioning, procurement, preservation, packaging, transportation, warehousing, and disposal. Thus, the FCS provides the basis for a universal language of supply by establishing standard rules for identifying and describing all items of supply.

d. To accomplish the objectives outlined in subparagraph a, the various supply commodities are organized into groups, with classes within each group. Each two-digit numerical Federal Supply Group (FSG) identifies, by title, the broad commodity area of the individual classes comprising the group. Each class represents a family of items of supply that are relatively similar in their physical or performance characteristics or which are combined for supply management purposes. The DLA cataloging handbook (found thru the DLIS <http://www.dlis.dla.mil/hardcopy.asp>), H-2, Federal Supply Classification Groups and Classes lists the classes in FSG 13, Ammunition and Explosives. Each item of supply shall be classified in one, and only one, four-digit class of the FSC. The assignment of an FSC code number to an item of supply shall not be influenced by the method and type of item identification used to establish the concept of the item.

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e. For general reference, items within a common grouping or class are collectively referred to by the items' group and class. A significant application of the four-digit FSC code is its use in structuring the NSN. The 13-digit NSN identifies a specific line item of supply, and is configured in the following manner:

1305-00-892-2150

(1) Federal Supply Classification. A four-digit code comprising the item's federal supply group and class (e.g. 1305, 1310, 1315, 1320 etc.).

(2) NATO Code. A two-digit number code which identifies the NATO country assigning the stock number and/or which indicates that the item is produced by a country other than the country assigning the stock number. For ordnance this code is almost uniformly "00" or "01" which indicates U.S. production and cataloging cognizance.

(3) National Item Identification Number (NIIN). A nine-digit nonsignificant number that uniquely identifies an item of supply. The NIIN includes the NATO code and is the primary sequencing element of the NSN. Many catalogs, documents, and listings are in NIIN sequence.

f. NSNs are assigned to all items of supply which are centrally managed or procured for supply system stock. New items entering the supply system are generally processed in time to permit assignment of NSNs by DLIS prior to their shipment from producers or suppliers. In circumstances where NSN assignment is delayed and it is necessary to assign a temporary or expedient means of identification, a Navy Item Control Number (NICN) may be assigned by the Naval Operational Logistics Support Center (NOLSC-AMMO). Frequently NICNs are assigned to items for which contractor delivery must be expedited prior to completion of the stock numbering process. They are also assigned to items undergoing development or evaluation or to items awaiting disposal or other action under conditions where the NSN cannot be determined. NICNs are temporary, pending NSN assignment, and therefore are not included in the DLIS files. However, those that are assigned by NOLSC-AMMO are included in Ordnance Information System-Wholesale (OIS-W) and reflected in the Navy Stock List NAVSUP PUB 803. Examples of the NICN as listed in Section 2 of the stock list are as follows:

<u>CODE*</u>	<u>NIIN</u>	<u>FSC</u>	<u>COG</u>
LL	AM2-0051	1305	2T

LL	AM2-0062	1376	2T
LL	AM2-0103	1305	0T
LL	AM6-0055	8105	2T

*Code LL indicates that the number is locally assigned.

6.3.1.2 Cataloging Responsibilities.

a. Commander, Navy Supply Systems Command (NAVSUP) is responsible for performing the headquarters cataloging staff functions defined in DoD 4100.39-M and for providing staff support on cataloging matters common to the Navy and Marine Corps. This assignment includes developing, implementing, maintaining, and administering the Navy supply system's cataloging policy. NAVSUP provides the program direction for automating cataloging systems and procedures. It is the Navy's primary representative in coordinating the Navy support of DLA in developing the standard operating policies, regulations, procedures, and schedules required to implement, operate, and maintain the FCS. As necessary, NAVSUP recommends to DLA new or revised management techniques and procedures to improve Navy interface with FCS policies.

b. Program Executive Officer (PEO)/Program Manager (PM).

(1) Applies the established cataloging policies to the management of non-nuclear ordnance under their cognizance and generates the cataloging data required by the PM's checklist (Attachment (8-4) to NAVSUP P-724).

(2) Initiates, coordinates, and monitors the stock numbering of newly introduced ordnance items as directed by NAVSUP P-724.

c. NSWCDIV Indian Head is the Navy's hazard classifier for ammunition, explosives and related hazardous materials. Ammunition and Explosive Hazard Classification Procedures explained NAVSEAINST 8020.8B.

(1) Assigns the hazard classification, UN number, proper shipping name, and storage Net Explosive Weight (NEW) based on the data submitted by the PEO/PM. The data required is specified in the hazard classification section of the PM's checklist.

(2) Forwards the above information to the other Services and the DoD Explosive Safety Board (DDESB) for concurrence and forwarding to Military Surface Deployment and Distribution Command (SDDC), then on to the Department of Transportation

(DOT) for approval and assignment of an EX number. See Section 7-1 for additional Information.

(3) Enters the hazard classification, UN number, proper shipping name, storage NEW, and EX number into OIS-W.

d. Packaging, Handling Storage & Transportation (PHS&T), NAVSEA Indian Head Detachment, Earle NJ is the Navy's agent for ordnance PHS&T documentation and information.

(1) Validates accuracy of storage Performance Oriented Packaging (POP), and shipping catalog data.

(2) Enters the appropriate data on new ordnance items into their Explosives Safety Technical Manual System (ESTMS) for the next update of the SW020-AC-SAF-010.

(3) Updates the NEW, storage, POP, and shipping data as directed by the Hazard Classifier.

e. NOLSC-AMMO is the designated ordnance cataloging agent for the Navy and Marine Corps in obtaining the assignment of NSNs and DoDICs from DLIS.

(1) Obtains NSNs from DLIS for non-nuclear ordnance items.

(2) Assigns NICNs to non-stock-numbered items.

(3) Records the Navy as the Primary Inventory Control Activity (PICA). This includes non-Single Manager for Conventional Ammunition (SMCA) items and SMCA items not yet transferred or transitioned to the SMCA. The SMCA is the PICA for SMCA items.

(4) Maintains a Master Ammunition File (MAF) in OIS-W which contains the catalog descriptive data applicable to ordnance stock-numbered items.

(5) Maintains the Navy's master DoDIC/NALC file.

(6) Publishes and distributes change notices and change bulletins advising field activities and Army activities of cataloging changes to Navy owned items.

(7) Disseminates Change Notice Cards (CNCs) to field activities for incorporating safety and

transportation data contained in SW020-AC-SAF-010 into the local records.

(8) Publishes and distributes the following cataloging documents:

(a) NAVSUP P-802. Navy Ammunition Logistics Codes (NALCs).

(b) NAVSUP P-803. Stock List of Navy Ammunition.

(c) NAVSUP P-804. Stock List of Navy Ammunition Data Supplement.

(9) Performs research, as requested, on unidentified items and advises field activities of their status and disposition.

(10) Registers or withdraws the Navy in the DLIS catalog files as a user of ordnance items.

f. The DLIS, is the designated central repository for the cataloging records pertaining to all items of supply stocked in the DoD supply system.

(1) Assigns an appropriate stock number to the ordnance item submitted by NOLSC-AMMO.

(2) Enters the catalog data, along with the assigned stock number, into their Federal Logistics Information System (FLIS), which is the automated repository for all DoD supply items.

(3) Publishes and distributes the FEDLOG.

(4) Notifies the Services of the new item and its accompanying catalog data.

g. Activities, ashore and afloat, that stock ordnance are responsible for incorporating all cataloging changes to the OIS-W files, into their local stock records. These changes are provided in change notice cards and change notice bulletins issued by NOLSC-AMMO. They include SW020-AC-SAF-010 unique changes for ordnance pamphlet data, transportation data, unit of issue update, packaging data, and supply information updates as reflected in specific change notice codes.

6.3.1.3 NOLSC-AMMO Form 724/6 (7/04). This form is prepared by the PEO/PM for each new ordnance item entering the Navy inventory as described in NAVSUP P-724. Applicable drawings and other documentation are submitted as enclosures to the

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form. Each data element indicated on NOLSC-AMMO Form 724/6, is mandatory since completeness and accuracy in identifying an item are critical at the time of initial cataloging, when such information is more likely to be readily available. Activities with on-hand inventories are dependent on up-to-date OIS-W cataloging data for supply, packaging, and transportation information relative to newly introduced items under their management. The end result of thorough and accurate initial item entry data is the assurance of a valid database for user reference. Upon completion of processing the NOLSC-AMMO Form 724/6 Request Form, it is returned to the originator by NOLSC-AMMO, with the assigned NSN or NICN.

6.3.1.4 Item Development and Transition. Newly introduced ordnance items usually undergo an Research Development Testing & Evaluation (RDT&E) phase leading to Approval for Full Production (AFP). SMCA items that are developed and introduced by the Navy are managed by the Navy, pending transfer to the SMCA. This transfer is in accordance with formal transitioning agreements and RDT&E interface policies and procedures stated in Chapter 2 of DoD 5160.65-M. During the item's development, Navy liaison is maintained with the Armament/Munitions Requirements and Development (AMRAD) Committee which is responsible for providing standardization guidance, ensuring that newly introduced ordnance items meet the common needs of the Services and provide interoperability with items used by NATO. Committee interest generally begins when a Service establishes ordnance requirements and the item enters advanced development. At this stage it is the developing Service's (Navy) responsibility to obtain an NSN from DLIS, and take action to record the Navy as PICA. (If the item is to be transitioned to the SMCA, the SMCA will initiate action to record itself as the PICA and the "Introducing Service" (Navy) as the Secondary Item Control Activity (SICA) at the time the item is transferred to the SMCA). When a stock numbered item is transitioned to the SMCA, NOLSC-AMMO provides the Joint Munitions Command with the supply and technical cataloging data required by DoD 5160.65-M.

6.3.1.5 Unidentified Ordnance Items. Field activities occasionally receive (usually as rollback or user turn-in) or discover items with obsolete NSNs, or items for which NSNs or other identifiable information is not found. To ensure accountability, such items are temporarily identified and recorded in the local ordnance management system records. Prompt action is taken to obtain identification and disposition directions from the central Inventory Manager (IM). Stock

numbers assigned at the local level are strictly temporary, are not incorporated into the OIS-W, and do not enter into the cataloging system. If the item cannot be identified to an existing NSN, a former NSN or used by another program, and the item value is determined to be greater than \$1000.00, the Acquisition/Program Manager or designated agent will submit NOLSC-AMMO Form 724/6 to NOLSC-AMMO in accordance with NAVSUP P-724. Unidentified material with an estimated line item transaction value of less than \$1000.00 may be appropriately disposed of locally without NOLSC-AMMO involvement. Otherwise, pending identification and disposition instructions from NOLSC-AMMO, the unidentified item(s) is assigned an interim stock number constructed in the following format:

a. Items identified to a deleted NSN: Local stock numbers for items identifiable to a deleted stock number will be established using the deleted number.

b. Items which are identified by drawing, part, or sketch number only.

(1) The first four digits will be appropriate FSC.

(2) The next 9 digits - will contain the drawing/or, part number preceded by zeros. There will be no blanks in the stock number.

Example:

<u>Drawing/Part Number</u>	<u>Assigned Local Stock Number</u>
P/N 178598	1336-00-017-8598
P/N 76Z2843-2	1336-07-6Z2-8432
DWG 2513736RevC	1336-02-513-736C

c. Local stock numbers for items which cannot be identified to a deleted stock number, drawing number or part number, or where the drawing or part number has too many digits will be assigned as follows:

(1) The first four digits will be the appropriate FSC.

(2) The next nine digits will be assigned in sequence using a locally controlled number beginning with 000000001.

Example:

<u>Item</u>	<u>Drawing/Part Number</u>
Igniter, Electric	P/N 25-SA000AN28BR

Local Stock Number:
1377-00-000-0001

<u>Item</u>	<u>Drawing/Part Number</u>
Spotting Charge Bomb CXU-2/B	None

Local Stock Number:
1325-00-000-0002

d. In each of the above, it is essential that 13 digits (alphanumeric), grouped and hyphenated as shown (with no blanks), are included.

e. Upon return from NOLSC-AMMO of the annotated NOLSC-AMMO Form 724/6, the following actions are taken, as appropriate:

(1) Disposal authority provided. Process in accordance with the directions contained in the Disposal Release Order (DRO).

(2) Valid NSN provided.

(a) Delete the assets shown under the local stock number by processing a reversal transaction using the same Document Identifier Code (DIC) and document number used for the original receipt transaction.

(b) Using the same DIC and document number, process a receipt transaction gaining the assets under the NSN provided by NOLSC-AMMO.

6.3.1.6 The Stock List of Navy Ammunition. The Stock List of Navy Ammunition, NAVSUP P-803 provides the U.S. Navy and Marine Corps activities afloat and ashore with a complete listing of ordnance, components, and related equipment. The stock list is published and maintained by NOLSC-AMMO as directed by COMNAVSEASYS COM (for surface ordnance) or by COMNAVAIRSYS COM (for air ordnance). All requests for changes to the list or to its distribution are directed to NOLSC-AMMO. The Stock List of Navy Ammunition consists of five sections:

a. Section One. This section is arranged in Department of Defense Identification Code (DoDIC)/NALC sequence and excludes items to which DoDICs or NALCs are not assigned. The data contained in Section 1 is displayed with the following column headings:

(1) DoDIC/NALC. Self-explanatory.

(2) COG. The two-digit cognizance symbol which indicates the broad category of the ammunition item (2T, 8T, or 0T), and the ICPs or IMs, as appropriate, having technical and inventory control.

(3) Material Control Code (MCC). The MCC is a one-character alpha code used as follows:

<u>Code</u>	<u>Definition</u>
B	An item requiring lot number reporting.
C	An item requiring serial number reporting.
E	An item requiring both lot number and serial number reporting, but which is reported by serial number only.
K	An item requiring periodic lot reporting.

(4) FSC and NIIN. The FSC and NIIN together constitute the NSN of the item.

(5) Index Number. A semi-significant, six-character, alphanumeric number assigned to an item. The first character represents its Navy ordnance class, the remaining five digits are arbitrary. (Examples of class indicators are A - bombs and bomb components; B - military pyrotechnics; L - Marine Corps ordnance; R - gun ammunition over four inch.; T - surface launched guided missiles and components). The index number is used to sequence items within their respective classes, as in Section 3 of the stock list.

(6) Item Name and Description. Nomenclature of the item, noun name, modifiers, MK and Mod, series/type, etc.

(7) Reference Number. The drawing, standard, specification, or part number used to identify the item.

(8) Unit of Issue (UI). The item's unit of issue.

(9) Price. The item's unit price in terms of its unit of issue (procurement price).

(10) Weight. The prorated weight of the item in pounds (i.e., the bare item weight plus its packaging or share thereof).

NOTE

This weight information is not to be used for ballistic computations.

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(11) Cube. The volume of the item in cubic feet.

(12) Management Organization Entity (MOE) Rule. MOE, a four-digit cataloging code which reflects the PICA/SICA relationship and responsibilities for data collaboration between managers and users. For example, A901 indicates U.S. Army as the PICA, N2T4 would indicate that NOLSC-AMMO is the PICA.

(13) Security (SEC). SEC, a one-digit code which indicates the item's security classification (U, C, S or T). For sensitive items that are classified and weigh less than 100 pounds, this code is numeric and is defined to combine the security and sensitivity classification of the items. Unclassified pilferable items are coded P.

(14) Demilitarization Code (DEM). DEM, assigned to an item in accordance with NAVSUP P-485, Appendix 17. This is a single character alpha code assigned to an item identifying it as a Munitions List Item (MLI) or a non-MLI and defining the degree of demilitarization necessary prior to final disposition.

(15) Issue Restriction Code (IRC). IRC, a two-digit alpha or alphanumeric code indicating restrictions applicable to item issue or instructions for item requisitioning, turn-in, or exchange. A complete listing is contained in NAVSUP Pub 485.

(16) Source Of Supply (SOS). SOS of the item as indicated by the activity's three-digit routing identifier code (e.g., code NCB indicates NOLSC-AMMO as IM for ordnance).

(17) Shelf-Life Code (SLC). SLC, a one-character code denoting the period of time (beginning with date of manufacture) that the item is expected to remain suitable for issue and use. At the expiration of this time, the item should be referred for test or disposition instructions.

Examples:

<u>Type I</u>	<u>Type II</u>	<u>Shelf-Life Period</u>
A	N/A	1 month
B	N/A	2 months
S	9	60 months
0	0	Non-deteriorative
K	5	18 months

An alpha code denotes items for which shelf-life cannot be extended. A numeric code denotes items for which shelf-life can be extended. A complete listing of shelf-life codes is contained in NAVSUP Pub 485, Appendix 9.

(18) Shelf-Life Action Code (SLAC). SLAC, an alpha or alphanumeric assigned to a shelf-life item to specify the type of inspection, test, or restorative action to be taken when the item has reached its storage shelf-life limit.

Examples:

<u>Code</u>	<u>Description</u>
00	Non-deteriorative
C1	Incorporate all mandatory changes
L0	To be tested by the laboratory or activity in increments after the initial time limit has expired.

The complete listing of SLACs is contained in NAVSUP Pub 485, Appendix 9.

b. Section Two. This section is arranged in NIIN sequence and contains data identical to that described for section one. However, this section includes all items, irrespective of DoDIC/NALC assignment. In addition to centrally cataloged items, section two lists items to which NICNs have been assigned by NOLSC-AMMO.

c. Section Three. This section arranges items in Navy class groups by index number sequence to facilitate reference. Data coverage is identical to that in sections one and two.

d. Section Four (Data Supplement). This section provides detailed characteristics of the items cataloged in section two except for items under index codes F_____ and Y_____ (smokeless powder and ordnance production components, respectively). Items are listed in NIIN sequence. The information consists of data derived from technical publications, specifications, and drawings. Also included are configuration data, cube and packing density, and applicable palletized unit codes. Section four has a separate and limited distribution and is available from NOLSC-AMMO on request citing justification of need.

e. Section Five. Section five provides information on each item's NEW, in DoDIC/NALC sequence. Five different environmental situations are portrayed to

provide ordnance handling personnel with the NEWs for storage, waterfront, production, shipboard, and transportation under varying conditions.

6.3.2 Department of Defense Identification Code (DoDIC) System.

6.3.2.1 General. In ordnance, certain end items and major assemblies fall into generic groupings, in terms of their close physical and functional relationships and interchangeability. For management convenience, these groupings are assigned DoDICs or NALCs, which may embrace one or more NSNs. For example, a 5-inch 38-caliber projectile has the assigned DoDIC D249 which includes distinct NSNs, differing solely in the color of their explosive bursts. Similarly, a 16-inch 50-caliber projectile may have several stock numbers dependent on the dye color upon impact; however, these stock numbers are grouped under the single DoDIC D862.

6.3.2.2 Identification Numbers. The following numbering systems group and identify ordnance end items and major assemblies.

a. Department of Defense Identification Code (DoDIC). DoDIC is a four-character alphanumeric code consisting of one letter followed by three numbers (i.e., A072) assigned to a generic description within a Federal Supply Class (FSC). Whenever the same DoDIC is used as a suffix on two or more NSNs, the items are interchangeable as to function, issue, and use. DoDICs are assigned by the Defense Logistics Information Service (DLIS). Items that are assigned a DoDIC are normally common items used by more than one military service.

b. Department of Defense Ammunition Code (DoDAC). DoDAC which includes the FSC in addition to the assigned DoDIC. The DoDAC is an eight-character number divided into two parts by a hyphen. The first part consists of the item's FSC (e.g., 1305), and the second part consists of the DoDIC (e.g., A011).

c. Naval Ammunition Logistics Code (NALC). NOLSC-AMMO assigned four-digit code consisting of alpha and numeric codes. The NALC is similar to a DoDIC, except for its assignment by NOLSC-AMMO vice DLIS.

6.3.2.3 Control Numbers. Control Numbers form an index that portrays Complete Round ordnance items identifying end item NALCs through a top down breakdown to all subordinate NALCs/NSNs that satisfy

the operational needs for weapons for which requirements are established in the NNOR.

a. For management purposes, four-digit control numbers are devised to isolate and identify end items by end-item configuration, functional commonality, etc.

b. A simplified example of grouping by control number is presented.

<u>Control Numbers</u>	<u>Applicable DoDICs/NALCs</u>
ZPL1	D226, D228, D232, D233
ZPM1	D226, D232
ZPN1	D228, D233

In the example, control number ZPL1 groups all DoDICs which apply to 5"/38 VT projectiles. Control numbers ZPM1 and ZPN1 provide further differentiation by dividing the DoDICs into distinct groups as to "self-destructing" and "non-self-destructing". A control number includes one or more end-item DoDICs or NALCs within such groupings. In effect, grouping by control number represents a tailored packaging to achieve general performance and mission support capabilities.

c. Control numbers are assigned by NOLSC-AMMO and incorporated into OIS-W for retrieval in preparing tailored asset and other reports. They undergo changes as new DoDICs or NALCs are assigned, old ones dropped, or as combinations may be directed by CNO or the PM. Stratification and budget preparation depend on control number grouping for proper presentation.

d. Control numbers are also used to consolidate and present assets of related items, display readiness posture and capabilities, fair share items from production, systematically arrange and display new procurements, show maintenance requirements and schedule assets for maintenance. The Control Number Index is updated monthly and is maintained in OIS-W by NOLSC-AMMO.

6.3.2.4 NAVSUP Pub P-802. This technical manual provides the operating forces and certain SMCA activities with a reference to the DoDIC and NALC codes applicable to ordnance and components used by the Navy and Marine Corps. This is a four part reference.

a. Part 1, Section 1, Ammunition Items are arranged alphabetically by nomenclature within each of

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the Ammo Class.

(1) Part 1. Section 2, Complete Round Components.

b. Part 2. Ammunition Items arranged in ascending alphanumeric DoDICs/NALCs deleted or superseded since the last revision are listed.

c. Part 3. DoDIC/NALCs deleted or superseded since last revision are listed.

d. Part 4. Issue Priority Guidance for 2T Ammunition.

Comments concerning additions, deletions, errors, or omissions of data contained in NAVSUP Pub P-802, or requests for changes to its distribution list are forwarded to NOLSC-AMMO.

CHAPTER 6.4**Receipt, Segregation, Storage, and Issue (RSS&I)****Table of Contents**

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CHAPTER 6.4

Receipt, Segregation, Storage, and Issue (RSS&I)

6.4.1 Ordnance Stock Point Load Plan.

6.4.1.1 General. The activity load plan is a valuable tool for shore retail stock-points (primary and secondary) to use in determining appropriate stockage levels to properly support Fleet ammunition positioning requirements as well as other customer requirements. Load plans are developed and issued by the Naval Operational Logistics Support Center (NOLSC-AMMO) in accordance with NAVSUP P-724 policy and in conjunction with recommendations provided by host stock-point, other customers and other governing documents.

6.4.1.2 Load Plan Factors. The FLT Combatant Commanders and other ordnance stock-point customer requirements are termed Load Plan Factors. There are 5 Load Plan factors presently in use. Not all Load Plan factors apply to every ordnance stock-point. The Load Plan factors are as follows:

- a. Global Naval Ordnance Positioning Plan (GNOPP).
- b. Maintenance and Production.
- c. Other Services.
- d. Contractor/other Activities.
- e. Local Community.

6.4.1.3 Load Plan Development.

a. A load plan for the Department of the Navy (DoN) ammunition stock-points is developed annually. Ammunition stock-point load plans are developed biannually and reviewed annually. Development and/or review begins six months prior to the load plan year with projected completion and publication prior to the beginning of the new load plan year. Development is performed on the even years and review is performed on the odd years. Activities update their individual station load plan annually.

b. The development process is started during the second quarter of each fiscal year by NOLSC-AMMO coordinating with Fleets, Ammunition stock-points,

and Acquisition/Program Managers (PMs), or their agents, to determine the quantities required for Load Plan factors one through five.

c. The Commander, U. S. Pacific Fleet (COM-PACFLT) and Commander, Fleet Forces Command (CFFC) provide positioning quantities of ammunition including positioning of required components of All-Up-Rounds (AURs) in support of worldwide Naval positioning based on assets reported in the NOLSC-AMMO Ordnance Information System-Wholesale (OIS-W) using the GNOPP Tool as the ordnance positioning decision system.

d. Acquisition/Program Managers, Ammunition stock-points and Stockpile Managers develop storage requirements for ammunition end-items, components, and explosives to support 12 months of maintenance workload and/or 12 months of production load, assemble and pack requirements in support of Load Plan Factor two.

e. Ammunition stock-points provide projected commitments for storage space requirements in support of Load Plan Factors 3, 4, and 5 to NOLSC-AMMO by 31 January each year covering requirements projected for the following fiscal year.

(1) In addition, even though Foreign Military Sales/Security Assistance Program (FMS/SAP) material is not included in these factors, space consideration is given for requirements to temporarily stow a limit amount of FMS/SAP material for up to 90 days. Requirements for temporary storage of FMS/SAP material at either the Atlantic Ordnance Command activities or West Coast Weapons Stations is negotiated between the Navy International Programs Office and the COMPACFLT or CFFC.

(2) Additionally, although demilitarization disposal (Ownership Code 2) material will not be stored routinely at Navy ammunition activities, space consideration is given to accommodate this requirement.

f. Prior to the development of recommended ammunition activity load plans and the consolidated master load plan, NOLSC-AMMO evaluates each stock-point's annual load plan input (factor quantities, total

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quantities) to ensure space availability and compliance with safety requirements. Fleet requirements have first priority for storage space in developing stock-point load plans. Upon completion of this evaluation, recommended load plans are forwarded to Acquisition/Program Managers for review at the Navy Ammunition Logistics Code (NALC) family or National Stock Number (NSN) level.

g. Final activity baseline load plan under the management of the Fleet Combatant Commanders or other major claimants will be prepared and distributed by NOLSC-AMMO no later than 1 October of each year. Proposed changes required during the year will be review, approved and distributed by NOLSC-AMMO.

h. Once the annual stock-point load plans have been submitted and approved, each stock-point will use the approved load plan annual update as the basis for managing local stock levels, determining proper magazine utilization, planning future facility improvements and maintaining stocking levels in support of the Fleet and other authorized customers. The safety requirement of NAVSEA OP5 Volume 1 will remain a mandatory consideration.

6.4.1.4 Load Plan Use. The activity's load plan is used separately, or in conjunction with other applicable documents or records, as the activity's official reference document concerning the range and depth of ordnance that is authorized to be stocked at that activity. The FLT Combatant Commanders are responsible for implementing the ammunition stocking objectives for primary and secondary storage activities.

a. In support of Fleet positioning requirements, the NOLSC-AMMO generates recommended ordnance movements in support of station replenishment and redistribution requirements necessary to assure compliance with approved load plans. NOLSC-AMMO provides reports that indicate the extent of load plan compliance for each approved load plan citing stock-point, ammunition tonnage, percent conformance for each Cog and asset ownership. These recommendations can be provided annually during the development year, review year and upon request. The following reports and data products provide the basis to determine the degree of load plan compliance.

(1) A Load Plan Performance Report provides options to select load plan compliance statistics by Condition Code(s), Purpose Code(s), Cog(s), Ownership Code(s), and Unit Identification Code(s) (UICs) with the ability to sort by Cog or UIC.

(2) A Load Plan Attribute Report that provides load plan compliance data for the current fiscal year by month with the ability to select Conditions Code(s), Purpose Code(s), Ownership Code(s) and UIC(s).

(3) Load Plan Compliance Graphs that graphically display conformance statistics by month.

(4) Load Plan Performance Measurement Reports indicating required tonnage represented in approved load plans, excess stored inventory tonnage, inventory tonnage in conformance with approved load plans, measure of the tonnage discrepancy between approved load plan requirements and tonnage stored, and conformance statistics.

b. This information can also be used to identify and justify the need for additional magazines, in connection with military construction planning.

c. The load plan is useful to the activity in identifying and requisitioning items for which stockage is authorized. At the NOLSC-AMMO, the activity's load plan is incorporated into OIS-W, and requisitions received by NOLSC-AMMO are monitored by UIC to determine authorization status and/or the need for further justification.

d. When used with other information (i.e., usage, stock status, Fleet and Inventory Manager (IM) directives, etc.), the load plan may signal the existence of local excess. Suspect items discovered in this manner are reported to the IM for verification of continued need or for disposition instructions.

e. The load plan reflects a listing, by DoDIC/NALC, of authorized ordnance components.

6.4.2 Receipt, Segregation, Storage, and Issue (RSS&I) Management Policies and Procedures. The following are management policies and procedures that have application in more than one RSS&I process.

6.4.2.1 Ammunition Sentencing Publications (NAVSUP P-805, and P-807) Precepts. NAVSUP P-805, Section 1-4 discusses Ammunition Sentencing Publications Precepts as follows: "Items of ammunition, with but few exceptions, are expendable, not consumable items. One effect of this distinction is that ammunition items continue to be a part of the total inventory until they no longer exist. Consumables are not expected to be returned to stock after they have been issued; expendables are! So long as any item is a part of the total inventory its condition and status information are necessary elements in the inventory record." The five precepts are as follows:

a. Precept Number 1: Safety, security, inventory accuracy, and economy dictate that receipt inspection must be performed at the earliest opportunity and before any other processing.

b. Precept Number 2: Inspection should be limited to those characteristics that are subject to have changed since last sentencing, e.g.:

- (1) Environmental deterioration.
- (2) Shelf-life/Service life effects.
- (3) Reclassification.
- (4) Identification/packaging change.
- (5) Preparation for use.
- (6) Physical damage.

c. Precept Number 3: The sequence of inspection steps should minimize inspection effort.

d. Precept Number 4: Inspection results should specify the correct Condition Code (C/C) and Defect Code (D/C) to be assigned.

e. Precept Number 5: Referencing to other documents should be minimal.

6.4.2.2 Ordnance Handling. A major function that occurs in each of the RSS&I processes is physical handling of the ordnance. Safe handling procedures are specified in the appropriate NAVSEA OPs. Proper use of Industrial Materials Handling Equipment is covered in NAVSEA SW023-AH-WHM-010.

6.4.2.3 Material Condition Codes (C/C) and Defect Codes (D/C). Ammunition C/Cs shall be as defined in Appendix D of the Ammunition Sentencing Publications (can be viewed at the NOLSC-AMMO Website <https://www.ois.disa.mil>). User's must establish a user account. After logging in, publications are found under Logistics Services, Asset Profile menu). D/Cs shall be applied per the specific directions contained in the NAVSUP PUBs P-805 and P-807. Proper use of C/Cs and D/Cs is important in assisting the Item IMs and Technical Managers (TMs) in proper stockpile management and minimizing acquisition, maintenance, and disposal costs. All ordnance in the inventory will have an assigned C/C. For all ordnance except C/C "A", D/Cs shall be present/entered on the tag/label.

6.4.2.4 Stock Rotation. Retail activity stock levels are prescribed by load plans, which provide the total approved stock level and a breakdown of the specific requirements such as ordnance for shipfill, mission and cargo loads, War Reserve Material Requirement (WRMR), and Testing and Training Requirement (TTR) ordnance. The specific requirements that comprise the total stock level are the maximum levels authorized for the specific purpose, and are not stock reservations. Items listed under WRMR or TTR may be issued to replenish shipfill, cargo, mission load, and WRMR ordnance may be issued to meet Non-Combat Expenditure Allocation (NCEA) requirements, provided replenishment action is taken. The total approved stock level is considered as available in the selection of ordnance for issue, and its issue is desirable for stock rotation.

6.4.3 Receipt.

6.4.3.1 Material Identification. Material identification upon receipt, is entered into automated inventory management systems to assist the ordnance activity in managing the ordnance. Retail Ordnance Logistics Management System (ROLMS), activities receipt personnel enter the appropriate data off of the Government Bill of Lading (GBL). The data is then processed by the system and made available to all other activity personnel to properly process the receipted material. For those activities with Total Ammunition Movement Management System (TAMMS), receipt personnel enter the data from the GBL. The system determines the effect of the receipted material on the activity load plan and Net explosive Weight (NEW) limits for siting purposes.

6.4.3.2 Receipt Inspection. Received ordnance shipments must be inspected to verify that the condition is as specified on the DD Form 1348. Quality Assurance Department or Quality Verification Division personnel of primary stock-points and qualified ordnance personnel of secondary stock-points shall inspect and confirm serviceability, and report discrepancies or damages that have occurred in shipment. Transportation Deficiency Reports (TDRs) or Report of Discrepancy (ROD) will be submitted as described in Section 4, Chapter 4.4 of this Volume.

6.4.4 Segregation Program. Segregation only applies to 2E (Conventional Air Ammunition), 2T (Conventional Ammunition), and OT (USMC expendable ordnance).

6.4.4.1 General. Receipt inspection separates ordnance that requires no additional inspection or process-

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ing from that which does. Ordnance is sentenced to C/C "K" when the true identification and/or condition of the ordnance is not known and requires further processing, to determine the true identification and/or condition. For ordnance that cannot be adequately sentenced (in terms of actual material condition and identification) by receipt inspection (and other, similar processes), segregation provides a level of sentencing capability that precludes the need to have such sentencing performed as a part of traditional maintenance processes, which are more costly in both time and money. Segregation is an important process in providing an accurate picture of the stockpile condition for the IM and Acquisition/Maintenance PM. The smaller the percentage of the total stockpile in C/C "K", the better job the IM can do distributing the Ready for Issue (RFI) stock, and the more accurately the PM can manage the acquisition and maintenance programs.

6.4.4.2 Segregation. Fleet-returned ordnance in C/C "K" (undetermined condition) should be expeditiously segregated to permit its take up in stock under its true condition classification. A period of 45 days is the limiting guideline for ammunition in C/C "K". Activity segregation and exterior maintenance schedules should be in accordance with a priority list issued by NOLSC-AMMO. The ordnance segregation process is described in NAVSUP P-805, Chapter 7.

a. Ammunition in C/C "K" is identified to its correct DoDIC/NALC, NSN, and lot number, and physically separated if necessary. C/Cs and quantities listed on the receiving document will be verified and any quantity discrepancies reconciled. All items will be checked for reclassifications listed in NAVSUP P-801 and subsequent Notice of Ammunition Reclassification (NARs).

6.4.4.3 Inspection. Remaining items in all other C/Cs are inspected as follows:

a. Ordnance packed in hermetically sealed or waterproof containers shall not be opened unless inspection of the container indicates it has been previously opened (broken seal), or that it is damaged or has deteriorated to an extent that the ordnance contents may be affected.

b. Ordnance items normally not packed in containers but protected by ordnance details, such as waterproof protective caps and unpalletized, shall be inspected for proper and complete identification markings and for exterior damage or deterioration.

c. Unit pallet loads of packaged or unpackaged ordnance will not be depalletized unless the seals have been broken. The contents of each pallet load shall be inspected for damage, broken seals, or deterioration without depalletizing.

d. Inspections described above can be conducted on-pier during off-loading. On-pier sentencing, particularly of sealed containers and palletized ordnance, should be maximized to avoid build-up of C/C "K" and to reduce turn around time for ordnance issues.

e. Segregation inspection must be performed in the sequence specified in the applicable governing publication and Standard Operating Procedure (SOP). The segregation inspection shall also be limited to the characteristics and inspection steps specified in the applicable governing publication and SOP.

6.4.4.4 Classification. Upon receipt, all ordnance whose lots are free of NAR suspensions, and whose C/C classification indicated on the DD Form 1348-1 is verified by 100 percent inspection, shall be taken up in stock by reclassification from C/C "K" to the correct C/C. For Fleet-returned ordnance with no C/Cs indicated, the presumption during segregation is that all ordnance items are serviceable (C/C "A"). More restrictive C/Cs are then assigned to lots that have been reclassified by NARs, and to individual ordnance items as the inspection findings warrant. Segregation and reclassification of material held in C/C "K" should be expedited, overriding the NOLSC-AMMO priority list for the current or upcoming FY Maintenance Program. Items with known future demand requirements should be included for rapid turnaround with Fleet Ordnance Support (FOS) funds. As a general guideline, a 30-day maximum limit is desired for material in C/C "K". On the 10th of each month, primary CONUS stock-points are required to report amounts of unsegregated ordnance that has been onboard over 30 days.

6.4.4.5 Certification Requirement. Activities whose quality assurance programs are governed in total or in part by NAVSEA TO300-AM-ORD-010 or NAVSUP PUBs 801/802/803/804/805/807, shall certify the material condition and status C/C of all segregated ordnance. Certification shall be executed using an inspection indicator (stamp) or authorized signature on the MIL-STD-129 tag/label. Certification is required for all ordnance (serviceable, suspended, and unserviceable).

6.4.4.6 Ammunition Sentencing Publications Management. NOLSC-AMMO is responsible for the Ammunition

tion Sentencing Publications. The scope of the applicable policies and requirements is such that no single organizational entity has authority over them all. The following general description for content authority applies:

a. **Safety and Security.** Navy Ordnance Safety and Security Activity (NOSSA) is the single technical point of contact for safety and physical security policy and requirements pertaining to Ammunition, Explosives and other Dangerous Articles (AEDA) within and throughout the Department of the Navy.

b. **Quality.** Ammunition Acquisition/Program Managers (PMs) are the single technical point of contact and authority for all in-service quality requirements and related life-cycle support policies and procedures pertaining to assigned ammunition. The following are directly applicable to the Ammunition Sentencing Publications:

(1) **Serviceability Criteria.** The PMs have the sole authority to specify ammunition serviceability criteria. These criteria identify specific characteristics and their standard of acceptability, including any tolerance or allowable variation in those standards. Inherent in these criteria is the specification of whether or not unserviceable ammunition can or should be returned to serviceable condition.

(2) **Levels of Maintenance Specification.** The PMs have the sole authority, through Integrated Logistics Support (ILS) planning to specify how maintenance of assigned ammunition will be accomplished.

(3) **Reclassification.** The PMs have the sole authority to reclassify specific populations of assigned ammunition. Inherent in this authority is the issue of direction to reidentify the ammunition, i.e., change the serviceability identification to unserviceable, suspended, or serviceable with specific qualifications applied.

c. **Logistics Management.** NAVSUP P-724 promulgates conventional ordnance stock-pile management policies and procedures for worldwide ammunition assets within the Navy.

(1) **Stock-pile Management Process Requirements.** NAVSUP P-724 is the authoritative requirement for ammunition requisitioning, transaction reporting, stock-point and Fleet Receipt, Segregation, Storage and Issue (RSS&I), load planning, stock-pile stratification, demilitarization, disposal, disposition, inventory

accounting, transportation planning and control, and inventory data management.

(2) **Ammunition Condition Codes (C/C), Defect Codes (D/C), and Material Condition and Status Identification Requirements.** Ammunition serviceability is identified in inventory records and accounts and in transaction reports using C/Cs and D/Cs. C/Cs and D/Cs for Navy conventional ammunition are promulgated in Appendix D of the Ammunition Sentencing Publications as directed by NAVSUP P-724. Ammunition is physically identified in terms of its serviceability (C/Cs and D/Cs) using Material Condition Tags/Labels and barcoded labels (for electronic capture of the data). The Ammunition Sentencing Publications, Appendix A, provide the requirements for this physical identification.

6.4.4.7 Single Manager of Conventional Ammunition (SMCA) Segregation and Reclassification. When C/C "K" ordnance accumulates to an unacceptable level, a request for transfer of Fleet-returned ordnance to inland storage should be addressed to NOLSC-AMMO. NOLSC-AMMO will coordinate the shipment with the SMCA ammunition support and Maintenance Division at the Joint Munitions Command for designation of a wholesale stock destination. SMCA quality assurance personnel will check for outstanding restrictions or suspensions and will inspect to verify material conditions. Reclassification actions are accomplished by the preparation of an Ammunition Condition Report (ACR).

6.4.5 Storage.

6.4.5.1 Storage Ashore.

a. **Ordnance storage activities** are required to provide safe and secure storage for non-nuclear ordnance and inert components in a manner that will permit the most efficient and responsive support to the Fleet. Guidance found in DoD 5100.76-M, Physical Security of Sensitive Conventional Arms, Ammunition, and Explosive (AA&E) shall be followed.

b. **Management of available storage on a station-wide basis** requires a broad knowledge of:

(1) **Types and quantities of magazines, their sizes, and group locations.**

(2) **Net Explosives Weight (NEW) limits and physical (volumetric) capacities of magazines in terms of items stored.**

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(3) Item storage compatibilities, item NEWs, and item sensitivity/security categories.

(4) General Fleet demand rate of items.

c. General Considerations that affect storage management:

(1) The most efficient utilization of a magazine is to fill it to volumetric capacity, while attaining the maximum authorized NEW. Since this is seldom possible, individual magazine utilization can be optimized by judicious selection of low-ratio NEW to total weight items, consistent with permissible compatibility with high ratio items to maximize magazine storage volumetric and NEW limits.

(2) Magazine selection for high risk (Category 1 or 2) sensitive items should be based on the following parameters.

(a) Denial of accessibility to criminal intrusion by centrally locating at maximum distance from station boundaries.

(b) Consolidate storage areas readily controlled by security personnel for authorized access.

(c) Select magazines or magazine groups that are capable of conversion to hardened storage by perimeter security measures (fencing, Intrusion Detection Systems (IDS), protective lighting, and/or non-working hours patrols).

(3) For medium- and low-risk sensitive items, and for ordnance items not coded as sensitive, magazine selection should be based on consideration of Fleet demand and on storage accessibility to station shipping/out-loading points.

d. The activity Weapons/Ordnance Officer is responsible for the ordnance storage arrangement. Subordinates of this officer are responsible for the location of ordnance by lot number or serial number, and the internal arrangement of the ordnance in each magazine. Individual magazine storage plans should provide ready accessibility for:

(1) Locating specific lots for issue, QE sampling, and reclassification action due to NARs.

(2) Conducting physical inventories.

(3) Applying or changing OPSCAN labels.

(4) Conducting surveillance inspections.

e. In developing individual magazine storage plans, NAVSEA ordnance activities should comply with NAVSEAINST 8024.02. The stowage plan policies described in enclosure (3) to NAVSEAINST 8024.02 are prescribed for all other ordnance activities for use in optimizing local magazine utilization.

(1) Eighteen inch aisle spaces shall be maintained between every other pallet row in order to facilitate the sight checks and bar code scanning required for physical inventory, inspection, lot/serial controls, and other stowage management functions.

(2) Pallet spacing and stacking configurations shall be directed towards the objective of allowing access to a desired pallet stack with a maximum of three stack movements, except for bombs which are jam stowed.

(3) Pallet set-downs shall be no more than four deep.

(4) Spacing and stacking shall allow access by traditional/manually operated forklift operations, and will allow a 90 degree turn set-down after coming through the door.

(5) Maximum stacking height requirements shown in layout diagrams and used in magazines shall take into consideration the type of assets and containers to be stowed. Stacking limitations in applicable weapons requirement documents and military standards shall not be violated.

(6) Storage compatibility regulations of NAVSEA OP 5 and quantity/distance restrictions require strict compliance.

(7) Spacing and stacking shall facilitate executing First In/First Out (FIFO) issue processing policy.

(8) Diagram layouts notwithstanding, total ordnance stored in magazines shall not exceed the allowed NEW.

(9) Ordnance stored in individual magazines shall not normally exceed 80 percent of the magazine's total storage capacity, i.e. the magazine shall be considered "full" (100 percent utilized) at 80 percent

of the magazine's nominal storage capacity expressed in square feet.

(10) The above stowage plan policies shall be subordinate to published and "common sense" safety considerations. "Safety first" is the top priority in planning and executing magazine stowage.

6.4.5.2 Primary stock-points. Primary stock-points, in addition to the considerations identified in subparagraph 6.4.5.1, have additional temporary holding facilities to handle large quantities of throughput ordnance to minimize double handling requirements. Depending on the ship's schedule, temporary storage facilities can also be used to pre-stage ordnance for onload, thus minimizing the ship's time at an explosives pier or anchorage. There are three types of temporary holding facilities:

- a. Barricaded rail sidings and barricaded truck areas that have been assigned specific NEW limits.
- b. Unbarricaded rail sidings and truck marshaling areas, with or without NEW limits specified.
- c. Explosives barges that have been assigned specific NEW limits, for holding and transporting the ordnance and inert cargo from the terminal to the ship at an explosives anchorage.

Appropriate explosives safety and security measures have to be taken at these temporary holding facilities to minimize risk, similar to those for permanent storage facilities.

6.4.5.3 Stowage Afloat. Many of the storage considerations that a facility's Ordnance Officer must be concerned with have already been determined by the ship designers for the ship's Ordnance/Weapons Officer. The ship magazines' location, size, and design are established to accommodate a specific mixture of ordnance listed in the assigned allowance(s). Any significant change in allowance requiring a change in magazine design requires an Ordnance Alteration (ORDALT). The most significant considerations for the ship's Ordnance/Weapons Officer is ensuring compatibility and proper securing of all ordnance within the magazines to preclude damage due to the ship's movement while at sea, which could lead to a catastrophic event or unserviceable ordnance. For Ordnance/Weapons Officers aboard surface combatants, ordnance magazine design and placement has left very little flexibility for ordnance distribution management. For Ordnance/Weapons Officers aboard surface

ships with magazines for cargo or mission allowances, storage plans for each of these magazines should be carefully developed to provide ready accessibility for:

- a. Locating specific lots for issue, and reclassification action due to NARs.
- b. Conducting physical inventories.
- c. Applying or changing Optical Scan (OP-SCAN) labels.
- d. Assisting ship's engineering department in ensuring proper weight distribution throughout the ship.

6.4.6 Physical Inventory.

a. Managing a multi-billion dollar worldwide inventory requires effective controls to prevent asset disappearance and ensure asset accountability. To maintain positive control, it is essential that all assets in stowage, storage, and elsewhere (such as in transit or in production) be accounted for, and that stock record balances at all levels be maintained in an up-to-date status. Accurate inventory records not only reflect "good housekeeping," they are essential to Fleet support and to secure supply management practices. Therefore, one of the basic goals of the Navy's physical inventory program has been to improve the accuracy of supply system records. Attainment of this goal improves supply support, ensures accurate and timely budgetary and procurement actions, and results in the cost-effective use of limited manpower and monetary resources. The policies contained in DoD 4140.1-R and in the Navy's supporting directive, NAVSUP P-723, are designed to ensure good supply practices.

b. NAVSUP P-724 provides the Navy policy and responsibilities for achieving and sustaining ammunition inventory accuracy performance objectives and procedures that continuously improve the accountability of ammunition in reporting activity custody.

c. Sampling and Statistical Process Control. The objectives of Sampling and Statistical Process Control (SPC) and its application to ordnance inventory management are to:

- (1) Provide a more efficient and revealing depiction of station inventory accuracy.
- (2) Provide a diagnostic tool to help managers identify inventory processes that need refinement, and make better decisions regarding the use of limited RSS&I resources.

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(3) Location Reconciliation Procedures. This reconciliation is designed to compare the NOLSC record to the stock-point record. Stock-points and NOLSC should use automated mail (i.e. e-mail) whenever possible.

d. Stock point Inventory Accuracy Management Procedures.

(1) All activities reporting Naval ammunition shall designate an Inventory Accuracy Officer (IAO) as required by NAVSUP P-724. Stock points will forward the IAO name, code, DSN and commercial numbers and email addresses at the beginning of each fiscal year to NOLSC-AMMO.

(2) For scheduled inventories, stock points prepare and maintain a local record of all physical inventories scheduled at the beginning of each fiscal year. The schedule will, at a minimum, designate assets and locations to be inventoried each quarter.

(3) Scheduled Inventories:

(a) Category I (Controlled Inventory Item Codes (CIICs) 1, 5, 6): 100 percent physical inventory conducted semi-annually.

(b) Category II, (CIICs 2, 8, and S): 100 percent physical inventory conducted annually.

(c) All other ammunition/ordnance inventory: Either 100 percent physical inventory conducted annually or an annual statistical estimation sampling process that provides a reasonable assurance that the property accountable records meet applicable inventory accuracy standards with a 95 percent level of confidence (maximum margin of error of 2 percent).

(4) Mandatory Sampling. Naval shore activities identified as Stock Points for Sampling (SPS) by NOLSC-AMMO shall conduct weekly random Statistical Process Control (SPC) sampling of the activities total ordnance inventory for other than CAT I and CAT II (High Risk) material.

(5) Depleted uranium rounds: 100 percent annually. Applicable Navy Ammunition Code (NALC)/National Item Identification Numbers (NIINs) that are reportable to OIS are: A675/001934227, A675/010876742, A676/011853265, A979/011363623, A979/012612582, and A983/012197970.

(6) Unschedule inventories are required when any of the following occur:

(a) Warehouse Denial (Refusal). When material is on record but is not found in the location during material movements (i.e. issuing material).

(b) Bounceback. When a stock-point rejects a requisition referred by NOLSC-AMMO or an NOLSC-AMMO Ammo Office, the stock-point must conduct a physical inventory if the transaction history analysis does not resolve the discrepancy.

(c) Anytime a location/magazine is compromised, a 100% inventory for that location must be completed within 24 hours. A location/magazine is considered compromised anytime there is evidence of an unauthorized entry.

e. The Physical Inventory Process is described in detail in NAVSUP P-724 and will not be restated here.

6.4.7 NOLSC-AMMO Responsibilities (per NAVSUP P-724):

a. Develops and issues ordnance accountability and inventory accuracy monitoring policy and procedures for Navy ammunition.

b. Designates a Data Integrity Officer to oversee the Naval Ordnance Inventory Accuracy Program.

c. Conducts periodic Inventory Accuracy Forums (IAFs) for discussion of ordnance accountability and accuracy related issues.

d. Coordinates with the Single Manager for Conventional Ammunition (SMCA) to ensure Naval ordnance in SMCA activities meet inventory accuracy requirements.

e. Monitors ordnance activity compliance with physical inventory, location audit and location reconciliation scheduling and performance requirements.

f. Provides inventory management inspection personnel in support of the Department of Navy (DoN) Shore Station Explosive Safety Program.

g. On an exception basis, conducts ordnance Ammunition Management and Accountability Review (AMAR) visits to assist ordnance handling and storage activities resolve process deficiencies and improving ammunition inventory accuracy, data quality and accountability.

h. Coordinates with Marine Corps Systems Command (MARCORSYSCOM) to ensure Navy activities

holding OT COG assets meet inventory accuracy requirements.

6.4.7.1 Ammunition Management Accountability Review (AMAR). The AMAR program succeeded and expanded upon the Non-nuclear Ammunition Inventory Accuracy (NAIA) program. The purpose of the AMAR program is to enhance station magazine to ROLMS and ROLMS to OIS-W inventory accuracy. The AMAR program measures inventory accuracy, evaluates procedural compliance fourteen functional areas, and conducts tailored training where required. AMARs are on-site reviews coordinated, scheduled and targeted primary at activities whose performance trends are suspect. They may be specifically requested by Major Claimants, Type Commanders, Regional Commanders or Commanding Officers or requested and scheduled as a result of an Unsatisfactory Inventory Management grade based on an Explosives Safety Inspection (ESI). NOLSC-AMMO develops, coordinates and conducts AMARs.

6.4.7.2 Location Survey Procedures.

(1) An annual survey of each location is required. Items within storage areas on which a wall-to-wall physical inventory was performed do not require a separate location survey; the location inventory should identify and resolve material found in unrecorded locations. The CNO goal for location survey accuracy is 98%.

(2) Retain location survey cards/listings for one year. Retain location survey reports for two years.

6.4.7.3 Inventory Discrepancies. Discrepancies found through inventory processes must be properly reported to ensure the stockpile databases are updated to accurately reflect what is in each magazine. The two reports which cover inventory discrepancies are described in Chapter 4.4.

6.4.8 Issue. Some of the topics covered must also be considered for receipt and during storage to minimize the effort required during the issue process.

6.4.8.1 Fleet Issue Policies.

a. Service Ordnance. Service ordnance to fill deploying ships and Fleet units' shipfill, interim or tailored allowances must be RFI. This includes C/C "A", "B", and "C" ordnance items.

b. Training Ordnance. Ordnance for training should be issued from available C/C "B" or "C" material whenever possible. If appropriate C/C "B" or "C" items are not available, C/C "A" ordnance of the oldest lots should be issued.

6.4.8.2 Remnant Lots. As a rule, remnant lots should be issued whenever possible for use in training.

6.4.8.3 Quality Assurance on Issue. Ordnance Issue is a general term in ordnance stockpile management that covers transfers from retail or wholesale activity stocks to any activity, regardless of C/C. Ordnance issues to Fleet ships and using activities must be made with serviceable RFI ordnance, as certified by the issuing activity. Ordnance issues to retail or wholesale activities ashore to fill Load Plan requirements in support of the Fleet are usually made with serviceable RFI ordnance, as certified by the issuing activity. Each activity Commanding Officer is responsible for ensuring that serviceable ordnance is issued, unless otherwise directed (i.e., issue of assets to a maintenance activity). The Quality Assurance Department, within primary stock-points, is assigned QE and verification as serviceable for issue responsibilities. At secondary stock-points responsibility is assigned to the Weapons/Ordnance Officer and may be delegated to ordnance personnel assigned quality assurance functions.

6.4.8.4 Traceable Seals. A Traceable Seal is a physical device applied to ammunition containers and that must be removed or broken in order to open the container and remove the contents. Ammunition containers require Traceable Seals. Two types (Type 1 and Type 2) of Traceable Seals are used, depending on the type of container. The essential requirements for either Type 1 or Type 2 Traceable Seals are that they not be reusable or removable from a container without destruction of the seal and that they embody an activity symbol or identifier. See NAVSUP P-805, Chapter 3 for amplifying information.

a. Type 1 Traceable Seals. Type 1 seals are the preferred seals for containers having provisions or means for application of the seals, e.g., metal, plastic, fiberglass or wood containers with lids or hinged cover, latches, brackets or flanges. A Type 1 seal is typically, a wire length with a metal disk or pellet that is crimped or crushed using a die that imprints the activity symbol or identifier on the disk/pellet.

b. Type 2 Traceable Seals. Type 2 seals are the preferred seals for fiberboard or styrofoam containers or for metal, plastic, fiberglass or wood containers that will not readily accept Type 1 seals. Type 2 seals are,

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typically, nonmetallic labels with pressure sensitive backing. They may be pre-printed, stamped or marked with the activity symbol or identifier. Preprinting of individual inspector indicators is not authorized.

6.4.8.5 Sensitive Item Issues. Issue of sensitive items or nonsensitive classified items, and for items coded 5, 6, or 8, involving transfer via rail or truck is accomplished in accordance with DoD 5100.76-M or DoD 5200.1-R, whichever is most stringent. In conjunction with quality verification for serviceability during issue, a verification of quantity shall be made by inspection, including where practicable, the opening of unsealed containers for Code 1 and 2 items. Discrepancies are reconciled and corrected quantities entered on DD Form 1348-1. After verification, containers of Code 1 and 2 items shall be sealed with a numbered seal and the numbers recorded. The use of Signature and Talley, DD Form 1907, should be used as custody passes from magazine warehousing to receiving personnel.

6.4.8.6 Shipment Consolidation. When a Materiel Release Order (MRO) is received at an SMCA storage site, the quantity to be issued is consolidated with other shipments wherever possible. However, consolidation is waived when it would jeopardize meeting the

requiring activities Required Delivery Date (RDD). MROs are processed by the Single Manager within the Uniform Material Movement and Issue Priority System (UMMIPS) time frames.

6.4.8.7 Issue Replenishment. As a retail activities stocks become depleted through issues, replenishment is requisitioned in accordance with NAVSUP P-724. Replenishment of stocks is expedited when standard requisitioning procedures are followed, and due care is taken in the assignment of coded data elements. For example, when small multi-packed items are requisitioned for stock replenishment, the quantity requested should equal the quantity of the container contents or the advice Code 5H (furnish nearest package quantity requested) should be specified. Prior to requisitioning ordnance to fill load plan levels, stock points should review available resources, such as on-hand unsegregated ordnance and items in C/Cs "E" and "F" which can be processed and returned to stock as RFI. Item priorities in the listing of readiness deficiencies issued by NOLSC-AMMO, may be modified to replenish stocks from on-hand assets awaiting segregation or maintenance. IFI funds are provided for maintenance of rapid turnaround ordnance to replenish station requirements, and for transportation charge avoidance.

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CHAPTER 6.5

Requisition and Return Management

6.5.1 Inventory Responsibilities.

6.5.1.1 Inventory Control Point (ICP). Naval Ordnance Logistics Support Center (NOLSC-AMMO) is the Inventory Control Point (ICP) to which non-nuclear ordnance items are assigned for inventory management. In 2003, the Chief of Naval Operations (CNO) directed the disestablishment of the Naval Ammunition Logistics Center (NALC), Naval Transportation Center (NAVTRANS), and Naval Petroleum Office (NAVPETOFF). All three were consolidated into a single command, thus establishing the Naval Operational Logistics Support Center (NOLSC). NOLSC-AMMO is the ammunition Fleet support agent for CNO, Fleet Commanders, Commandant of the Marine Corps (CMC, Code ASL) and applicable Acquisition/Program Managers. In the performance of its supply support mission, NOLSC-AMMO refers to Commander, Naval Sea Systems Command (NAVSEA) and Commander, Naval Air Systems Command (NAV-AIR) for technical/program guidance, and to Commander, Naval Supply Systems Command (NAVSUP) for supply system policy/procedures and program funding.

a. As the Inventory Manager (IM) of non-nuclear ordnance material, NOLSC-AMMO deals directly with OPNAV, Commander Fleet Forces Command (CFFC), Commander, Naval Surface Forces (CNSF), Type Commanders, Force Commanders, SYSCOMS, and the Single Manager for Conventional Ammunition (SMCA). These relationships involve interfaces relating to program direction and funding, reports formulation and exchanges, asset visibility information, and near real-time systems integration with central data repositories.

b. NOLSC-AMMO is charged with broad inventory management responsibilities. This involves receipt, control, and distribution of requisitions for wholesale stocks and the coordination of security assistance and interservice support requirements. They also perform the following functions.

(1) Maintain worldwide asset status visibility by receiving and recording transaction reports from approximately 1100 reporters of ordnance items.

(2) Receive and process requisitions for wholesale stocks. Distribute ordnance from new production and maintenance activities. Redistribute existing inventories to satisfy changing Fleet requirements.

(3) Perform centralized financial inventory accounting and accomplish billing for stock-points in connection with the movement of material.

(4) Stratify ordnance assets to identify long-supply and potential excess items.

(5) Serve as the single commercial transportation management office responsible for the planning, coordinating, and monitoring of overseas shipments of Navy, Coast Guard, Marine Corps (when supplied from Naval activities), and Foreign Military Sales (FMS) ordnance.

6.5.1.2 NOLSC Ammunition Management Office.

a. NOLSC AMMOLANT Norfolk, VA and NOLSC AMMOPAC San Diego, CA provide a single point of contact for their customers, and retail supply points for requisition management and tracking. Each is the office responsible for Fleet requisition processing, Fleet interface, and coordination of scheduling ordnance movements in their areas of responsibility. NOLSC AMMOPAC is additionally responsible for coordinating Opportune Lift (OPLIFT), Vertical Replenishment (VERTREP) and Navy Liaison Office (NLO) actions for the Pacific region.

b. Additionally, NOLSC AMMOLANT Norfolk, VA and NOLSC AMMOPAC San Diego, CA:

(1) Analyze the potential effectiveness of candidate cross-deck evolutions and coordinate cross-decking.

(2) Publish cross-deck guidance messages to ships that will supply the ammunition and provide specific direction on which assets and asset quantities are to be transferred, when and where the ammunition will be transferred, and what assets are to be retained onboard.

6.5.1.3 Responsibilities of Fleet Units and Shore Activities having custody of non-nuclear ordnance.

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a. Custodial accountability for ordnance in their possession.

b. Property management, including responsibility for damage, loss, or destruction of ordnance in their possession.

c. Reporting, as required by NOLSC-AMMO, the status of assets in their possession by quantity, lot number, serial number, and condition.

d. Perform physical inventories of assets in their possession and maintain accurate stock records. The physical inventory program is described in Chapter 6.4, Section 6.4.6 of this volume.

6.5.1.4 Single Manager of Conventional Ammunition (SMCA) Assigned Ammunition. The inventory management responsibilities for SMCA-assigned ammunition are specified beyond that which is listed for all other Navy-assigned ordnance.

a. The IM responsibilities for SMCA-assigned ammunition are contained in DoD 5160.68. The instruction assigns the following IM responsibilities to the SMCA:

(1) Provide the specific inventory management functions defined below for assigned conventional ammunition stored at SMCA facilities. These functions may be provided for Military Service retained items on a cost reimbursable basis, as allowed by DoDI 4000.19.

(a) Responsibility for custodial accountability for assigned conventional ammunition. The SMCA is relieved of custodial accountability upon receipt by Military Service-Accountable Officers at the first retail point or consumer level.

(b) Report, as required by the Military Services, the status of assigned Military Service-owned assets.

(c) Perform physical inventories per DoD 5100.76-M.

b. DoD 5160.68 assigns the following inventory management responsibilities for SMCA-assigned ammunition to the Military Services.

(1) Provide conventional ammunition receipt, storage, and issue requirements to the SMCA.

(2) Provide contingency requirements to the SMCA.

6.5.2 Requisitioning.

6.5.2.1 General. Basic instructions concerning the policy, scope, and procedures for processing MILSTRIP requisitions are contained in NAVSUP P-485, Volumes I, II and III. Specific ordnance requisitioning procedures, ashore and afloat, are contained in NAVSUP P-724 and FLT Combatant Commander instructions. Specific procedures governing requisitioning channels and draw down of OT cognizance material by U.S. Marine Corps units are outlined in U.S. Marine Corps directives. Material needs are satisfied by the preparation and submission of MILSTRIP requisitions, redistribution orders, and referral orders and referral orders in accordance with NAVSUP P-485. These represent supply action documents initiated in connection with the following:

a. Ammunition required for annual training exercises, and/or replacement for ordnance expended during Fleet exercise training within remaining allocations.

b. Ammunition required in support of Research Development Test and Evaluation (RDT&E) programs within an established allocation, maintenance programs, or Quality Evaluation (QE).

c. Ammunition required to supply ship service allowances for deployment.

d. Ammunition required due to adjustments in mission loads or underway replenishment ship cargo loads.

e. Stockpile manager-directed relocation ammunition.

f. Initial on-load of ammunition for newly constructed or reactivated ships, and on-load of ammunition for ships leaving overhaul.

g. Segregation of ordnance being transferred to a disposal account and movement to disposal.

h. Ammunition requisitioned for T-AE/AOE/AS contingency cargo load.

6.5.2.2 Requisitioning Document. All ammunition requisitions are submitted via NOLSC-AMMO's Ordnance Information System-Wholesale (OIS-W) or MILSTRIP message. Requisition will then be forwarded for action to NOLSC AMMOPAC, San Diego, CA, NOLSC AMMOLANT, Norfolk, VA, Commander, Logistics Forces, Western Pacific (COMLOGWEST-PAC) or CTF 63. MILSTRIP messages containing classified information, classified remarks, or classified

exception data must only be submitted as an administrative naval message transmitted to NOLSC-AMMO, NOLSC AMMOPAC, NOLSC-AMMOLANT, COM-LOGWESTPAC or CTF 63. Requisitions sourced via OIS-W will produce an audit trail for the life cycle of that document. Requisition In English (RIE) format may be used for requisitions with priority Codes 01 through 03. The AMMO personnel will transcribe the requisition into MILSTRIP format and refer it to the appropriate stocking point.

6.5.2.3 Method of Transmission.

a. Initial Requisition:

(1) OIS-W

(2) MILSTRIP message via the Defense Messaging System (DMS).

b. Ammunition MILSTRIP Requisition Follow-up.

(1) Initial status on all requisition submitted will be provided via OIS-W. If initial status is not received within seven (7) days, a MILSTRIP follow-up (document identifier AT_) is submitted to NOLSC-AMMO using RIC NCB.

(2) The status of MILSTRIP requisitions that have been processed through the Defense Automated Addressing System (DAAS) from activities can additionally be tracked using a web-based tool developed by the Defense Automated Addressing System Center (DAASC).

(a) A System Access Request (SAR) can be processed at their website: <https://www.daas.dla.mil>.

c. ROLMS is the Department of the Navy (DoN) automated system for reporting ammunition transactions to OIS-W.

6.5.2.4 Uniform Material Movement and Issue Priority System (UMMIPS). The efficient movement and issue of non-nuclear ordnance items depend on consideration of the relative importance of demands for system resources, such as material assets, transportation, manpower, processing capabilities, etc. Under UMMIPS the relative military importance of an activity or special project is indicated by a Force/Activity Designator (F/AD), assigned by the headquarters organization having command and support responsibility (i.e., NAVSEA, TYCOM, etc.). The F/AD is used by the requisitioning activity in conjunction with a variable Urgency of Need Designator (UND) to

determine the numeric Issue Priority Designator (IPD) to be indicated on each requisition. The derived IPD expresses its relative military urgency during requisition, issue, and movement transactions. The UMMIPS system is fully described in OPNAVINST 4614.1F. UMMIPS procedures apply to organic supply support operations and to stocked items only. In no instance are F/ADs or IPDs assigned for government contractor use. A different system is used for establishing contractor production and delivery priorities. Fleet Commanders, CMC, and Systems Commands are responsible for assigning F/ADs to the activities under their respective commands. To prevent proliferation of high priority requisitions, OPNAVINST 4614.1F requires that F/AD assignments be strictly observed and that the assigned IPDs be consistent with the actual urgency of need. To ensure compliance, the OPNAVINST 4614.1F requires close system monitoring by headquarters activities of assigned F/ADs, and continuing local review of specific higher priority IPDs. Local assignment of UNDs is determined by applying the urgency of need guidelines contained in enclosure (3) of OPNAVINST 4614.1F. The following generalization suffices for present purposes.

a. UND A. Used when the requirement is immediate and without the needed material the activity is or will shortly be unable to perform its missions.

b. UND B. Used when the requirement is urgent but not yet critical and could result in impairment of the mission if material is not received in a timely manner.

c. UND C. Used for more or less routine requirements such as stock replenishment, material to meet schedule deployment, the initial ordering of allowance list material, or when the required delivery date for the material is sufficiently in the future.

The following matrix illustrates how a numeric IPD is derived by combining the activity's (or specific project's) F/AD (I, II, III, IV, or V as appropriate) with one of three alphabetical UNDs.

	UNDS		
	Unable to Perform Mission	Impaired Operational Capability	Routine
F/ADs	A	B	C
I-In Combat	1	4	11
II-Positioned for Combat	2	5	12
III-Positioned to Deploy/Combat	3	6	13

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IV-Other Activity and Selected	7	9	14
V-All Other	8	10	15

An RDD is conditionally indicated on requisitions for use in conjunction with the IPD. The RDD is a Julian date specifying when material is required by the requisitioner at a date different than the standard (published in OPNAVINST 4614.1F. When the RDI is other than the assigned standard, its Julian date is indicated in the requisition in accordance with MILSTRIP format. When the RDD earlier than the assigned standard processing time is indicated on the request document, all activities shall exert maximum economic effort (including consideration of high-speed transportation) to deliver the material by the specified RDD. When critically needed items require expeditious handling, the numerical code "999" is entered in the RDD field of the MILSTRIP requisition. Only those requisitions bearing IPDs 01, 02 and 03 for overseas, afloat, and deploying forces are eligible for "999" assignments. Specific UMMIPS priority codes are also used for retrograde. Returned material is moved without regard to F/AD assignment of the activity or units involved, and priorities 03, 06, and 13 automatically assigned for such use as follows:

d. Priority Designator 03. Return of critical and intensively managed items.

e. Priority Designator 06. Return of material identified by the material manager for automatic return.

f. Priority Designator 13. Routine return of material.

6.5.2.5 Project Codes. Project codes are mandatory entries in CC 57-59 of all Navy requisitions. Project codes most frequently used in ammunition requisitioning are shown in NAVSUP P-724, Chapter 2, Attachment 2-3. NAVSUP P-485, Volume II, Attachment 6, provides a complete list and additional information on project codes. Special Project Codes are assigned to Joint Chiefs of Staff direct operations. Project Codes are perpetuated on all related documentation, and as part of the shipping container markings. They are used to identify requisitions and related documents to enable managers to monitor shipments and accumulate costs and performance data pertaining to:

- a. Special projects.
- b. Operations.

- c. Exercises and maneuvers.

Such codes do not provide or imply priority for requisition processing or supply decisions. To do so, requires that the assigned project code be used in conjunction with an appropriate IPD. NAVSEA has stipulated that project codes in the 800 series will be reserved for requisitioning and turn-in of Navy and Marine Corps non-nuclear ordnance. Requests for the assignment of new project codes for recurring use in requisitioning and turn-in of non-nuclear ordnance are coordinated with NOLSC-AMMO by NAVSEA. Requisitions with OSD or JCS project codes are ranked above all other requisitions with the same priority designators. When system-wide inventory levels do not permit positive designator, supply procedures will provide for a release of requisitions containing OSD and JCS project codes.

- a. Special projects.
- b. Operations.
- c. Exercises and maneuvers.

Such codes do not provide or imply priority for requisition processing or supply decisions. To do so, requires that the assigned project code be used in conjunction with an appropriate IPD. COMNAVSEASYS COM has stipulated that project codes in the 800 series will be reserved for requisitioning and turn-in of Navy and Marine Corps non-nuclear ordnance. Requests for the assignment of new project codes for recurring use in requisitioning and turn-in of non-nuclear ordnance are coordinated with NOLSC by COMNAVSEASYS COM. Requisitions with OSD or JCS project codes are ranked above all other requisitions with the same priority designators. When system-wide inventory levels do not permit positive supply action on all requisitions with a given priority designator, supply procedures will provide for a release of requisitions containing OSD and JCS project codes. A listing of non-nuclear ordnance project codes is found in NAVSUP P-724.

6.5.2.6 Requisition Processing.

a. OIS-W validates the entries in any requisition, whether directly input to OIS-W or entered via DAAS. Fleet requisitions with errors are routed by the IM to the appropriate NOLSC-AMMO Office. The NOLSC-AMMO Office will liaison with the requisitioner and try to correct the error(s), or explain why the requisition is invalid.

b. Valid requisitions go through an automatic sourcing process. If the ordnance ordered is available

at load sites, OIS-W automatically refers the requisition to the load site to fill. There are exceptions to this automated sourcing.

(1) Requisitions with one of the following conditions will be routed to the appropriate NOLSC-AMMOPAC, NOLSC AMMOLANT, or NOLSC-AMMO IM

(a) Issue Priority Group I, Priority 1, 2, or 3.

(b) Remarks.

(c) Errors, or the quantity exceeds allowance.

(2) Requisitions for the following ordnance material will be routed to the appropriate IM:

(a) AEPs/PADS will be submitted in accordance with NAVSUP P-724, Chapter 4, Section 6.

(b) Ordnance material whose NSN is coded with an Issue Restriction Code (IRC).

c. When the ordnance material requisitioned is not available at the load site, the requisition will be directed to the appropriate NOLSC-AMMO Office. The NOLSC-AMMO Office personnel will look for the most cost effective source of the ordnance. Ordnance may be sent from another stocking point, or cross decked from another unit.

d. If the ordnance is not available in the NOLSC-AMMOPAC, NOLSC AMMOLANT or theater logistic agent area of responsibility, the requisition is forwarded to the appropriate IM at NOLSC-AMMO for action.

e. NOLSC-AMMO Office and theater logistics agents will coordinate shipfill/cargo load cross deck opportunities whenever the chance arises, in accordance with Fleet load plans, to meet requisitioner's needs. This includes having needed top off ordnance aboard duty T-AE/AOE ships during major Fleet exercises. Keeping serviceable ordnance at sea is cost effective and efficient.

f. NOLSC-AMMO Office personnel, NOLSC-AMMO IMs, or stock point personnel will adjust requested quantities to unit pack quantities whenever possible to save time and money. The requisitioner will be notified of any changes in quantity.

g. Status Messages.

(1) When NOLSC-AMMO Office personnel process RIE requisitions, they send a status message in MILSTRIP format to the requisitioner and supplementary addressee within five working days, notifying them of the requisition by serial number and initial action taken.

(2) For loads at Fleet ordnance handling activities, NOLSC-AMMO Office personnel will ensure a message is sent approximately 30 days prior to the start of the loadout evolution. This message will give the complete status of all outstanding requisitions for that requisitioner in an easily understood format and will indicate the point of contact for onload coordination. This message will be followed up with another message seven days prior to the start of the evolution, with the status of all the requisitions and other details.

6.5.2.7 Requisition Validation and Monitoring. The MILSTRIP requisitioning system, described in NAVSUP P-485, prescribes procedures, forms, formats, and documents which are mandatory for requisitioners, and supply support activities. Its uniform codes, forms, formats, and procedures for transmitting requisitioning data apply in the Navy supply system to all centrally managed items. The detailed procedures for processing requisitions are predicated on the need for accurate inventory system record keeping and accountability, and for effective material support of the Fleet. Violations of the standard MILSTRIP format and communication/delivery media tend to impair the integrity of the MILSTRIP structure and minimize its effectiveness. For such reasons, the validation and monitoring of material requests (manually and by automated means) are features of the MILSTRIP requisition process. The range of data that requires validation by the supply source during processing is extensive and therefore beyond the scope of this manual. Validation procedures are documented comprehensively in the NAVSUP P-485, and NAVSUP P-724, FLT Combatant Commander instructions, and in the field activity internal procedures manuals. Part E: Material Obligation Validation (MOV) of NAVSUP P-485 Vol. III discusses in detail the elements of data on a MILSTRIP document requiring validation and the processing action to be taken in each case. At stock-points where stock records are computerized, it is essential to maintain stringent quality control to ensure machine acceptance of requisition data. Screening of requisitions against authorized allowances and station Load Plans is performed by NOLSC-AMMO personnel. This screening is primarily to resolve conflicting demands concerning the distribution of material among several claimants, or between Fleet

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combat and Training, Testing, and Current Operational Requirements (TTCOR), when material is in a low stock position. In such cases, resolution of allowance conflicts is coordinated by the item manager based on his knowledge of the exceptional nature and priority of activity requirements.

6.5.2.8 Requisitioning Ordnance from the SMCA.

a. SMCA-Assigned Items. Requisitions to SMCA for ammunition items to be filled from wholesale stock are forwarded to the Joint Munitions Command (JMC) by NOLSC-AMMO. This is accomplished by using a MILSTRIP Release Order (MRO) indicating a document identifier in the A4-series. The JMC selects the source of supply and directs shipment by issuing a Material Release Order to the SMCA storage site. Shipment status is provided when a valid distribution code is indicated in the referral order. The JMC does not accept requisitions submitted directly by Navy retail customers; such requisitions received by the JMC are passed to NOLSC-AMMO.

b. Non-SMCA-Assigned Items. Material Release Orders for non-SMCA-assigned ordnance items stored at Army storage sites are submitted directly to the storage site by NOLSC-AMMO. Copies or facsimiles of such release orders are provided to the JMC. In turn, the storage site will forward a Material Release Confirmation to NOLSC-AMMO.

c. Material Release Denial (MRD). An MRD is prepared in MILSTRIP format by the storage activity for that portion of the total quantity specified in the requisition/MRO which cannot be shipped.

6.5.2.9 Follow-Up Modifier Actions or Cancellations. The Navy or Marine Corps unit initiating a requisition, regardless of where it has been referred to, shall submit follow-up modification or cancellation requests in MILSTRIP format to NOLSC-AMMO (NCB), NOLSC AMMOLANT, Norfolk, VA (NTW), or NOLSC AMMOPAC, San Diego, CA (NTV), or in RIE format to the appropriate Ammunition Management Office. An information copy will be submitted to the loadout point, unless the unit is overseas. When units are deployed or home-ported overseas, theater guidance for addressees applies.

6.5.3 Inter-Service Support.**6.5.3.1 Coast Guard.**

a. The policy of exchanging personnel, vessels, facilities, equipment, supplies, and services between the Navy and the U. S. Coast Guard is based on statutory authority (Title 10, USC, Section 2571 and Title 14, USC, Chapter 145). The logistics support policy existing between the Navy and the Coast guard is promulgated by OPNAVINST 4000.79A.

6.5.3.2 Standing Approval List (SAL).

a. To achieve transportation savings by reducing cross-hauling of ordnance items common to two or more of the Services, the SMCA is authorized to substitute assets under ownership of one Service to satisfy a requisition by another Service.

b. Inter-Service Transfer Conditions.

(1) Items must be common usage items (not Service unique), authorized by the Services for listing on the latest update of the SAL (pyrotechnics FSC 1370 are excluded).

(2) Transfers of items are made only if simultaneous replacement by record repayment at another SMCA activity can be made.

(3) The payback item must be the same NSN and in the same quantity as the transferred item.

(4) The condition of the payback item must be the same or better than the condition of the transferred item.

(5) Inter-service transfers are followed by issue and receipt transactions, and depot lot records are changed to reflect new Service ownership within five days.

c. Navy Criteria for Items to be Designated as SAL Items.

(1) Be SMCA-managed.

(2) Be used by one or more of the other Military Services, as evidenced by the existence of the item by NSN in their stock catalogs.

(3) Not be in Navy short supply.

(4) Not be positioned for a special purpose, such as maintenance.

(5) Not be reserved for a Navy mobilization requirement.

(6) Not be palletized in accordance with MIL-STD-1323 for transfer-at-sea.

d. Service and SMCA Responsibilities:

(1) The SMCA must obtain prior approval in each instance for inter-service transfers of SMCA items not on the SAL.

(2) All services will annually review and update the SAL for additions and deletions depending on factors 6.5.3.2.c. (3) thru (6).

6.5.4 Fleet Return, Rollback, and Retrograde.

6.5.4.1 General. U.S. Navy ships are deployed with their full wartime allowances (service, interim, or tailored) of service ordnance designed to fill ships magazines to capacity. Service ordnance certified as serviceable by qualified ordnance personnel ashore, is issued and if not expended is retained until all ordnance is off-loaded (e.g., at the time of "ship's availability"). Expenditures are replenished, but the basic service load may be kept aboard for up to five years, and only subjected to Operational Level Maintenance (OLM). Eventually, the remaining ordnance is returned to an ordnance activity ashore where it is inspected, run through a segregation or maintenance line as required, and recertified as serviceable.

6.5.4.2 Fleet Return Policy. The following ordnance and ordnance details are required to be returned to Continental United States (CONUS) from Fleet units and overseas bases (includes rollback and retrograde).

a. Serviceable ordnance in excess of local requirements for return to stock.

b. Unserviceable - repairable ordnance in excess or beyond local maintenance capabilities, returned for maintenance.

c. Unserviceable - non-repairable ordnance returned for demilitarization and recovery of components or parts as required.

d. Serviceable ordnance details - for reuse in the manufacture, or Load, Assemble, and Pack (LAP) of new ordnance.

e. Fired cartridge cases larger than 20mm and all fired brass cases. These shall be classified serviceable/repairable/unserviceable in accordance with NAVSUP P-724, and returned for appropriate processing.

6.5.4.3 Procedures and Responsibilities.

a. Proper Preparation. Packing, accurate marking/labeling, and complete shipping documentation

are essential for the economical and safe return and subsequent processing of Fleet returned ordnance.

b. Ships and OCONUS activities expending ordnance and ships with cargo or mission allowances (service, interim, or tailored) are responsible for ordnance return procedures as contained in Fleet/logistic/TYCOM directives/instructions. These are enumerated as follows:

(1) Excess serviceable ordnance or unserviceable ordnance items are to be turned in to the nearest ordnance activity ashore.

(2) During expenditure, ships and Fleet activities shall retain all reusable details, as listed in NAVSUP P-724 for return to the nearest ordnance activity ashore or to UNREP ships (T-AEs/AOEs) if practicable. This includes fired cartridge cases larger than 20mm and all fired brass cases. These shall be classified serviceable/repairable/unserviceable in accordance with NAVSUP P-724 and returned for appropriate processing.

(3) Ordnance off-load of the entire allowance, for emergency repair work or yard availability, should be scheduled at a CONUS primary stock-point.

(4) All ordnance turned-in ashore shall be documented on form DD Form 1348-1A.

(5) In certain circumstances, such as short-term emergency ship repair, ordnance may be off-loaded for temporary storage ashore. These storage arrangements require TYCOM certification of operational necessity and the Fleet Commander's authorization. In this case the following steps will be taken:

(a) The offloaded ordnance will be carried on the ship's stock records.

(b) The shore activity will store the ordnance load separately.

(c) The shore activity will return the identical ordnance that was turned in without reporting receipt or issue transactions, or inspection or sentencing.

(6) Ordnance details, such as containers, cartridge/propelling charge tanks, and ordnance boxes, retained for reuse shall be 100% inspected and certified empty to ensure that no explosive loaded items are present. All markings describing the former contents shall be obliterated, and the container stenciled or tagged "EMPTY" or, if used for inert ordnance details it shall be stenciled or tagged "INERT."

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c. Ordnance Activities Ashore. A basic logistics function of retail stock-points is the acceptance of excess or unserviceable ordnance items and accumulated ordnance details turned in.

(1) OCONUS Ordnance Activities. Unserviceable Fleet-returned ordnance, which cannot be made serviceable with local capabilities or by means of periodic MAERU assistance, and excess serviceable ordnance items, are offered for redistribution to the IM via the Fleet Commander or his logistic representative. Accumulated ordnance details with a total weight of less than one ton may be shipped by earliest available surface transportation to the appropriate consignee listed in NAVSUP P-724. For accumulations over one ton, activities must contact NOLSC-AMMO.

(2) Minor, Secondary CONUS Stock-points. The procedures for receipt by CONUS minor and secondary retail stock-points of reusable ordnance details turned-in by tenant, neighboring expending activities, or ships, are the same as for OCONUS shore activities. Shipment to the ultimate consignee is identified in NAVSUP P-724. Ordnance which may be occasionally turned-in to minor and secondary retail stock-points, is to be taken up in stock.

(3) Primary CONUS Stock-points. CONUS Fleet commands on each coast are the primary points for Fleet-returned ordnance receipt. Procedures for receiving Fleet returns at primary stock-points are as follows:

(a) Shipfill Allowance Off-Loads. Ship's ordnance is usually not palletized. Waterfront personnel check the items for quantity as listed on the ship's DD Form 1348-1, and forward this document

to Ammunition Distribution and Control (AD&C) via Production Planning and Control (PP&C) for segregation scheduling.

(b) Cargo and Mission Allowance Off-Loads. This ordnance is usually palletized. The waterfront check is performed as described in NAVSUP P-805. If the material is palletized in a MIL-STD-1323 configuration and tagged in accordance with MIL-STD-129 indicating "Serviceable" (C/Cs "A", "B", or "C"), it is taken up in stock as serviceable. A check of lots for NAR reclassification and a visual inspection of the pallet load for damage or deterioration are performed and appropriate tags attached for unserviceable or suspended ordnance. Waterfront personnel will attach a MIL-STD-129 tag "Suspended - C/C "K"" to each pallet where condition is not readily determinable. Each C/C "K" pallet is sent to segregation.

(c) Rollback Returns. Palletized and loose ordnance returned as part of a rollback will be processed in the same manner as for ship allowance and cargo mission allowance off-loads. Receipt at the stock-point may be from commercial or organic shippings. In either case, ordnance items will be documented on DD Form 1348-1 or on a ship's manifest.

(d) Retrograde Materials. This material consists of ordnance details and inert components. Retrograde material may be included in rollback shipments, off-loaded with ordnance, or received as separate shipments of retrograde. Unpalletized ordnance details and inert components received with ship off-loads of ordnance or included in rollback shipments, should be subjected to the segregation process contained in NAVSUP P-805.

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CHAPTER 6.6

Transaction Reporting

6.6.1 General.

6.6.1.1 Asset Reporting. High material costs and limited assets necessitate accurate up-to-date reporting of world-wide Naval ordnance inventories. Asset visibility is achieved when stock status of material inventories, including receipts and expenditures, is systematically reported to Naval Operational Logistics Support Center (NOLSC-AMMO) for updating central files, and current summary information is published (or made available on the telecommunications network) for use by planners and Inventory Managers (IMs). In this process, the reporting field activities share responsibility for the accuracy of the information reported into the NOLSC-AMMO Ordnance Information System-Wholesale (OIS-W) records. In the final analysis, the reliability of the non-nuclear ordnance asset information system depends on the exercise of good quality control at each step of the reporting process, and on the prompt identification and correction and correction of errors and inconsistencies.

6.6.1.2 Stock Status Reporting. Data compiled from stock status reporting constitute the basis for the all-important function of stratifying, determining requirements, and formulating the annual budget. If these data are inaccurate or inadequate, calculations for new ordnance procurements and production requirements are likewise inaccurate. The issue and redistribution of assets, maintenance planning, disposal, and numerous other supply actions all depend on reliable data. To ensure the accuracy of reported information, central and local file data are continuously and systematically reconciled by the Item manager (IM). Navy-owned assets stored at non-Navy activities are also reported daily into OIS-W and differences, if any, are reconciled with the Single Manager of Conventional Ammunition (SMCA).

6.6.1.3 Asset Visibility. Ordnance reporting under OIS-W applies to principal end items and major subassemblies which are reported down to, and including, user level. End-item management policies dictate worldwide and in-depth visibility of items in transit. Accordingly, the OIS-W reporting network is more extensive than that of Uniform Automated Data

Processing System (UADPS) where items are generally considered to be expended from the supply system when issued from the Supply Officer's accountable records. Under UADPS, items issued to suboutlets such as, shop, or retail issue store are subject to financial accounting but do not retain visibility in a stock status transaction reporting system, nor are they considered assets in budgetary and procurement calculations. Non-nuclear ordnance end items are positioned to meet Chief of Naval Operations (CNO) prescribed distribution objectives and require continual in-depth visibility and central management up to and including expenditure.

6.6.1.4 Governing Instructions. NAVSUP P-724 contains the detailed policies, procedures, and responsibilities governing the reporting of non-nuclear ordnance. Those instructions are supplemented by the Commander Fleet Forces Command direction.

6.6.1.5 Reporting Network. Terms used in connection with the reporting of non-nuclear ordnance are "Transaction Item Reporting (TIR)" and "Ammunition Transaction Reporting (ATR)".

a. TIR. The method of reporting stock status information to NOLSC-AMMO on a daily basis is via Retail Ordnance Logistics Management System (ROLMS). Reports are submitted by the primary and major secondary ordnance stock-points to advise of changes to any of the elements of stock status data. In addition to reporting individual item transactions, an asset status card accompanies the daily report which summarizes all reported transactions under a specific NSN, purpose code, and Condition Code (C/C). Negative reports are required for those items for which no transactions are recorded.

b. ATR. ATRs are submitted via Naval message on an "as-occurring" basis within 24 hours of a reportable transaction by activities afloat and ashore (and commercial contractors when required), that are not on the TIR system. Under ATR reporting, the day's transactions and the opening and closing balances are reported by DoDIC/NALC for each active item. ATR reports are designed to categorize, among

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other things, end-use expenditures and allow for explanatory remarks.

6.6.2 Transaction Item Reporting (TIR).

6.6.2.1 Reportable Actions. TIR through the Department of Defense (DoD) and Navy communication system enables near real-time reporting TIR by shore activities, which is essential to provide a reliable database of ordnance inventory information. Therefore, continuous, intensive, and careful management and reporting of ammunition is essential. Transaction reports automatically update the OIS-W database for all Navy ammunition. TIRs are the standard Military Standard Transportation Reporting and Accounting Procedures (MILSTRAP) format. ROLMS, level 3 generates TIRs for electronic transmission to OIS-W.

a. Activities reporting ammunition designated as serial or lot number controlled are required to submit the specific lot/serial data simultaneously with the reportable transaction. A lot or serial record will also be maintained for those items which have lot or serial numbers assigned but are not designated as a lot/serial reportable item.

b. TIRs will be submitted within 24 hours (one working day) after completion of the event (receipt issue, expenditure, assembly, disassemble, test, inspection, inventory, reclassification, re-identification, etc.). Transactions for Categories I and II items (Security Risk Codes 1, 2, 5, 6, and 8) will always be reported within 24 hours after completion of the event, with exception to major off-loads at weapon stations which may be extended to 72 hours. The specific document identifier series used for reporting ordnance transactions are listed in Figure 6-6-1 for information.

c. A separate record must be maintained by NINN, Ownership Code/Purpose Code/ACC, Condition Code, and physical location of the item.

d. All transactions required as a result of receipt, issue, expenditure, assembly, disassemble, renovation, test, inspection, production, disposal, and inventory functions will be posted to the local record.

6.6.2.2 Financial Inventory Reports (FIR). All Navy TIR reporters are required to perform financial reporting. TIR activities shall submit reports using FIR and Fund Codes associated with applicable Document

Identifier Codes (DICs). Applicable FIR and Fund Codes are found in NAVSUP P-724. NOLSC-AMMO prepares and submits the monthly FIR report to the Commander Naval Supply Systems Command (COMNAVSUPSYSCOM) in accordance with NAVCOMPT Manual Vol. 8., Chapter 5. NOLSC-AMMO prepares the Foreign Military Sales (FMS) billing data set and forwards to the Naval Inventory Control Point (NAVICP) Mechanicsburg PA.

6.6.3 Ammunition Transaction Reporting (ATR).

6.6.3.1 Reportable Actions. ATRs are used to report ammunition supply transactions by Naval activities and commercial ordnance and handling activities that do not have TIR capability. ATR is a method of reporting transactions involving Naval conventional ordnance. ATRs are transmitted via formatted message for all transaction types, used variable length transaction lines.

a. All Navy-owned material assigned a DoDIC/NALC is reported by the ATR activities. An initial report is compiled to establish balances, subsequent reports are compiled to submit receipts, issues, expenditures, inventory adjustments and maintenance transactions.

b. Negative reports and asset status summary cards are not required for ATRs, since a running summary is maintained by NOLSC-AMMO based on the initial activity report, containing the following:

- (1) DoDIC/NALC of each item in stock.
- (2) On hand last report.
- (3) Quantity on board total.
- (4) Quantity serviceable.
- (5) Quantity unserviceable.

6.6.3.2 ATR Numbering. The initial ATR report is assigned "serial number one". Individual transactions are numbered serially from the initial report (e.g., serial one, serial two,...serial thirty-nine...etc.). The serial numbers are used by NOLSC-AMMO to compare and adjust the OIS-W inventory balances recorded for the activity and to detect missing reports. ATRs are submitted via Naval message.

<u>Transaction</u>	<u>Document Identifier (Series)</u>
Dual adjustment (increase and decrease) resulting from purpose transfer.	DAD
Dual adjustment (increase and decrease) resulting from condition transfer.	DAC
Receipt transactions based on procurement instrument source (e.g., commercial procurement, Military Interdepartmental Purchase Record (MIPR), receipt of material assembled based on a project order).	D4 Series
Receipt of transaction from other than procurement (e.g., return of material to inventory, receipts from other locations, receipts from non-Navy sources).	D6 Series
Issue transactions (e.g., to Navy, DoD, non-DoD activities, to foreign countries, to test and evaluation, to activities as government furnished material for production or Loading, Assembling and Packing (LAP), to others as defined in Appendix of NAVSUP P-437).	D7 Series
Single adjustment transaction (e.g., changes or transfer of condition code or purpose code).	D8/D9 Series
Reidentification of stock (e.g., used for previously misidentified items or for changes and as a result of renovation).	D8/D9 Series and D6/D7 (renovation)
Reversals (e.g., cancellation of an adjustment transaction).	D8/D9 Series
For Further Transfer (FFT) (for material passing through NAVSEA ordnance stock-points).	BGC
Items determined to be beyond economical repair and transferred to the property disposal officer.	DJ7
Negative transaction report.	BZA

Figure 6-6-1. TIR Document Identifier Codes

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6.6.3.3 Report Contents.

a. Lines 1 through 6 of the transaction message contain the Unit Identification Code (UIC) and Activity Classification Code (ACC) of the reporting activity, the report serial number, the transaction date, and the allocation UIC. (The ACC codes for use are listed in NAVSUP P-724). Allocation UIC - The Service Designator Code and five digit UIC of the activity or command registered with the Non-Combat Expenditure Allocation (NCEA), if an expenditure transaction is reported, followed by three slashes (///). Non-combat Expenditure Codes are F, G, H, and R, if issue is made to a non-reporter. NAVSUP P-724 provides a summary of ATR transaction codes. Exception: For specified financial reports, listed in NAVSUP P-724, one slash (/) will follow the Allocation UIC and an "F" (for financial) followed by three slashes (///) which ends the Header Line. The allocation UIC may be the same as the Reporting UIC. A separate ATR is required for each different Allocation UIC.

b. Transaction Lines. The transaction line is used to describe the actual transaction. A transaction line refines the Naval Ammunition Logistics Code

(NALC) and National Item Identification Number (NIIN), Condition Code (C/C), beginning balance, transaction code (type of transaction), the transaction quantity, Serial/Lot Item Tracking (SLIT) data when required, the Consignor UIC (UIC From) for receipts or Cosignee UIC (UIC to) for issues, the document number and ending balance.

c. Remarks. The REMARKS sections will not be used for reporting transactions. Remarks section should be used for amplification of transactions and to list a Point of Contact.

d. Off-load and Annual Reconciliation ATR Reports. A Reconciliation Transaction (B and T Transaction) will be forwarded to OIS-W for each NIIN, Activity Classification Code (ACC) and CC on an annual basis. All ships will complete a record-to-record reconciliation within two weeks after a complete off-load. Any discrepancies between activities on-hand balance and OIS-W computed on-hand balance must be reconciled. NOLSC-AMMO will produce an annual report schedule. ROLMS activities will automatically provide Beginning and Total (B&T) transactions for all assets on the scheduled report date.

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CHAPTER 6.7

Stratification Process

6.7.1 General. Per NAVSUP P-724 this section provides policy and procedures for executing the annual ammunition stratification review, identification of essential Acquisition/Program Manager participation in support of the Naval Operational Logistics Support Center (NOLSC-AMMO) and procedures for generating required reports to Commander Naval Supply Systems Command (COMNAVSUPSYSCOM). NOLSC-AMMO conducts the annual on-site (Mechanicsburg, PA) stratification review of the ordnance inventory. This review includes identifying requirements identifying and documenting end of Fiscal Year (FY) inventory, comparing requirements to inventory, reviewing and determining retention levels and potential excesses. During stratification, the ordnance inventory is broken down into four categories, Total Munitions Requirement (TMR), Economic Retention Munitions Stock (ERMS), Contingency Retention Munitions Stock (CRMS), and Potential Reutilization/Disposal Stock (PR/DS). The procedures cited do not apply to locally managed and stock Research, Development, Test and Evaluation (RDT&E) and OT Cog Items.

a. The definitions of the four categories are as follows:

(1) Total Munitions Requirement (TMR). The TMR provides the baseline for comparison with on-hand/inventories and the determination of long/supply/excess. TMR calculations include requirement levels in the Non-Nuclear Ordnance Requirement (NNOR), asset quantities necessary to satisfy the approved Non-Combat Expenditure Allocation (NCEA) and sufficient assets to sustain projected combat expenditures.

(2) Economic Retention Munitions Stock (ERMS). Assets greater than the TMR for which it is determined to be more economical to retain for future peacetime issue than to dispose and re-procure and/or repair in the out years. To warrant economic retention, items must have a reasonable predictable requirement.

(3) Contingency Retention Munitions Stock (CRMS). Assets greater than the TMR for which there is no predictable or quantifiable requirement, but

which are retained for specific national defense contingencies. CRMS can be retained to support RDT&E programs, projected modification programs, FMS Sales-from-Stock with planned Replacement-in-Kind, potential redeployment of deactivated ships/weapon systems, and treaty requirements.

(4) Potential Reutilization/Disposal Stock (PR/DS). All assets greater than the TMR that are not retained as ERMS or CRMS. Material that has the potential for being sent to the Defense Reutilization by another DoD Component or by a Federal, State, or local government agency; or for disposal through sale to the public.

6.7.2 Stockpile Stratification Initialization.

a. The stratification process is initiated by NOLSC-AMMO. Annual identification of obsolete items and migration into Ammo Class "X" category occurs during May and June.

b. NOLSC-AMMO reviews and validates stratification Navy Ammunition Logistics Codes (NALC) strings and configurations for possible changes. New items are added to new stratification numbers are created. Validation of stratification control number strings in NOLSC-AMMO's Ordnance Information System-Wholesale (OIS-W) is accomplished annually during July through September timeframe.

(1) Stratification Level. Stratification will be accomplished at DoDIC/NALC level with substitute DoDIC's grouped with the prime. Items not assigned a DoDIC/NALC will be reported by NSN.

c. Calculate baseline TMR - see paragraph 6.7.3.

d. NOLSC-AMMO received from CNO (N702) the constrained Non-Nuclear Ordnance Requirements (NNOR) and Non-Combat Expenditure Allocation (NCEA) data.

e. NOLSC-AMMO issues letter to Acquisition/Program Managers requesting:

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(1) Requirements data for newly cataloged items that do not have established requirements.

(2) Requirements data for Non-NNOR tactical items and components, containers and miscellaneous parts use factors that relate their requirements to NNOR end-item quantities.

6.7.3 Total Munitions Requirements (TMR) Base-line Development.

a. Total Munitions Requirements (TMR). The sum of War Reserve Munitions Requirements (WRMR) and Training/Testing, Current Operational Requirements (TTCOR). The total munitions requirements is equivalent to the Approved Acquisition Objective (AAO).

(1) War Reserve Munitions Requirements (WRMR). The sum of Combat Requirements, Residual Readiness Requirements, and Strategic Readiness Requirements.

a. Combat Requirements (CR). The quantity of munitions required to equip a specified force structure to its designed military capability and to meet Combatant Commander requirements for decisive defeat of the enemy. That includes munitions needed for operational flexibility during conflict.

b. Residual Readiness Requirement (RRR). Munitions necessary to provide a post-Major Theater War (MTW) combat capability for forces committed to the Defense Planning Guide (DPG) specified scenarios. Combat requirements include munitions needed for operational flexibility and some of those munitions may remain at the conclusion of the scenarios, than the RRR should be decreased by the amount remaining. Otherwise the RRR is additional.

c. Strategic Readiness Requirement (SRR). The quantity of munitions needed to arm forces not committed to support combat operations in the assigned MTW. It also includes any additional munitions requirements to meet treaty or statutory obligations to allies.

(2) Training, Test, and Current Operational Requirement (TTCOR). Munitions requirements to train the forces and to support Service programs ensuring that weapons and platforms deliver the intended effectiveness. Quality Evaluation (QE) testing of munitions items is accounted for in that block.

Current operational requirement encompasses peacetime operational requirements (i.e. natural disasters, riot control, saluting rounds, and explosive ordnance disposal operations and operations other than war) and deployed force requirements in excess of the assigned conflict's requirements. A seven year supply of TTCOR (current year requirement plus budget and Program Objective Memorandum (POM) years) is the normal stockage level of stock-pile objective.

(3) Approved Acquisition Objective (AAO). The quantity of an item authorized for peacetime and wartime requirements to equip and sustain U. S. and Allied Forces in accordance with current DoD policies and plans. This quantity shall be sufficient to support other U. S. Government agencies, as appropriate. This is considered equivalent to the Total Munitions Requirement (TMR).

(4) The following computation criteria is used in the development of the TMR:

(a) For NNOR items: The highest WRMR from the POM/PR cycle is added to the sum of the 1st and 2nd fiscal years of NCEA and the sum of the 3rd through 7th year of the Testing and Training Requirements (TTR) and projected combat expenditures.

(b) For Non-NNOR tactical items: The Acquisition/Program Manager's POM/PR WRMR (2E, 2T, 6T) added to the sum of the 1st and 2nd fiscal years of NCEA plus the 3rd through the 7th year of TTR.

(c) For Training Only Items: The sum of the 1st and 2nd fiscal years of NCEA plus the 3rd through the 7th year of TTR.

6.7.4 Annual Preliminary Stratification Review Procedures.

a. NOLSC-AMMO executes a preliminary run of the stratification model annually in July to validate input data and again at the beginning of October to capture end of FY asset posture in OIS-W.

b. NOLSC-AMMO reviews and forwards end of FY report Acquisition/Program Managers in early October.

c. Acquisition/Program Managers review for potential excess and provide written justification to

NOLSC-AMMO for all ordnance economic and contingency retention munitions stock decisions.

6.7.5 On-site Stratification Review Procedures.

a. NOLSC-AMMO hosts the annual on-site stratification review in mid-November with Acquisition/Program Managers and Resource Sponsors in attendance.

b. The on-site review is announced by letter in early September and followed-up by Naval message.

c. During the on-site review, NOLSC-AMMO Stock-pile Managers and the Acquisition/Program Managers or designated representatives, review stratification requirements by line item.

d. Retention justifications are documented on a master form along with signatures of respective Acquisition/Program Managers and NOLSC-AMMO representatives.

e. NOLSC-AMMO enters updated requirements data and remarks for retention decision into OIS-W prior to final stratification run in early December.

6.7.6 Final Stratification Procedures.

a. When the final stratification model run is complete, results are compiled and long supply items are identified.

b. NOLSC-AMMO develops input to the Naval Supply Inventory Report (SSIR) no later than 15 December annually.

(1) Data provided in support of the Navy SSIR is extracted from final stratification results. Wholesale Dollar Values are tabulated by COG as follows:

- (a) Total Munitions Requirement (TMR).
- (b) In-Transit Stock.
- (c) Economic Retention Stock.
- (d) Contingency Retention Stock.
- (e) Potential Re-Utilization/Disposal Stock.
- (f) Total Assets.

6.7.7 Cross Leveling.

6.7.7.1 The annual stratification provides the basis for cross leveling. Upon completion of the final stratification run, a PR/DS excess list will be generated by NOLSC-AMMO in mid-January and forwarded to the Inventory Managers. Concurrent with the development of the PR/DS excess list, the stratification coordinator will also generate two listings based on final stratification results.

a. The first list will contain all items of long supply in the ERMS, CRMS and PR/DS categories. This list is forwarded to all Acquisition/Program Managers, In-Service Engineering Agents (ISEAs), Special Operating Forces, Marine Corps, Army, Air Force, Coast Guard and the Office of the Executive Director for Conventional Ammunition (O/EDCA) no later than the end of January.

b. The second list will contain only items with assets in the PR/DS category. This list is forwarded to the Navy International Program Office (NIPO) no later than the end of February. These items are offered for potential sale to FMS customer countries.

6.7.7.2 These recipients review and identify cross leveling or sales-from-stock candidates. MILSTRIP Project Code "3AH" is used for all services to identify cross leveling actions. The order of precedence for potential cross leveling of Navy assets is Navy Special Operations Forces (SOF), U. S. Marine Corps, Army and/or Air Force.

a. The O/EDCA will compare other service out year requirements against the services items of long supply to identify Quad Service Review (QSR) candidates. The QSR is held in late March.

b. NOLSC-AMMO will represent the Navy at the annual cross leveling review (aka QSR) hosted by the EDCA. Potential Navy interest in the transfer of assets from other Services is coordinated by NOLSC-AMMO in coordination with the appropriate Acquisition/Program Manager.

c. The gaining claimant is responsible for any packaging and transportation cost. The losing claimant issues the movement requisition for material transfer.

d. NOLSC-AMMO implementation of cross leveling actions is reported to the EDCA and applicable Acquisition/Program Managers on a quarterly basis.

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CHAPTER 7.1

Explosives Safety Management

7.1.1 General.

7.1.1.1 Perspective. The primary focus of explosives safety management is to minimize risk to personnel, facilities, and equipment throughout the life of the ordnance. Even though there are personnel specifically assigned to explosives safety management positions at all echelon levels, everyone working with or around ordnance should consider themselves responsible for explosives safety management, and identifying and minimizing risk. The purpose of the Explosives Safety Management Program is to specify standardized safety regulations for the research, development, production, maintenance, care, handling, storage, preparation for shipment, use, and disposal of non-nuclear ordnance items. The safety regulations are intended to control the hazards associated with these operations including, but not limited to, blast, fire, lightning, Hazards of Electromagnetic Radiation to Ordnance (HERO), and propagation.

7.1.1.2 Policy. The following is Navy policy, which is consistent with operational requirements:

a. Provide the maximum possible protection to personnel and property, both inside and outside an installation or unit, from the damaging effects of potential accidents involving non-nuclear ordnance and explosives.

b. Limit the exposure of a minimum number of persons, for a minimum time, to the minimum amount of ordnance and explosives consistent with safe and efficient operations.

c. Comply with ordnance and explosives safety standards established by the Department of Defense Explosive Safety Board (DDESB) and as published by Commander, Naval Sea Systems Command (COMNAVSEASYS COM) and Chief of Naval Operations (CNO).

7.1.1.3 Scope. The Naval Explosives Safety Program applies to all personnel, civilian and military, assigned to any part of Department of Defense (DoN) where non-nuclear ordnance and explosives are, or may be, present.

7.1.1.4 Responsibilities:

a. CNO exercises general supervision and command authority for the application of technical guidance prepared by Commanding Officer, Naval Ordnance Safety and Security Activity (NOSSA). Within the Office of the Chief of Naval Operations (OPNAV), the Deputy of Chief of Naval Operations for Fleet Readiness and Logistics (N4) is responsible for supervising Navy Explosives safety matters. CNO (N4) coordinates explosives safety policy, programs and guidance which effect Navy and Marine Corps forces mutually, with the Commandant of the Marine Corps (CMC).

b. NOSSA is assigned responsibilities for the Navy's explosives safety program to include the following:

(1) Interpret DoD explosives safety policy contained in DoDD 6055.9.

(2) Establish Navy explosives safety ashore policy and procedures through NAVSEA OP 5, Volume 1.

(3) Establish Navy explosives safety afloat policy and procedures through NAVSEA OP 4.

(4) Establish Navy explosives safety ashore for Advanced Bases policy and procedures through NAVSEA OP 5, Volume 3.

(5) Establish additional explosives safety policies and procedures through additional instructions and publications as required.

(6) Provides technical review for the CNO for all Navy facility site plans (worldwide) at or adjacent to activities where explosives are stored, handled, or maintained, prior to forwarding of such site plans to DDESB for approval.

(7) Provides the Chair and a technical representative for the CNO mandated Ammunition and Hazardous materials (AMHAZ) Review Board.

(8) Reviews all requests originating within DoN for exemptions and waivers from established explosives safety criteria and advises CNO as to the technical validity of such requests.

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(9) Control the Approval for Navy Use process of all new or modified ordnance items through the Weapons System Explosives Safety Review Board (WSESRB).

(10) Conducts Explosives Safety Inspections (ESIs) of all shore activities, and ordnance readiness reviews of all ships, where ordnance is handled or stored to ensure compliance with appropriate directives.

c. Packaging, Handling, Storage, and Transportation (PHS&T) Department, NAVSEA Indian Head Detachment Earle, NJ. The PHS&T Department provides explosives safety program publication support to NOSSA. The PHS&T Department is responsible for placing the item's explosive data, along with the other item catalog data, into the SW020-AC-SAF-010 as stated in Chapter 6.3 of this Volume. Placement of the data in the SW Volumes provides the explosives data to the production, maintenance, storage, and transportation managers, upon which they determine the required explosives safety measures for each item.

d. NOSSA Explosives Safety Support Offices (ESSOs). The ESSOs conduct ESIs of shore activities in accordance with NOSSAINST 8020.14, and Afloat Units in accordance with NAVSEA 8023.12.

e. Ordnance Item Program Executive Officer (PEO)/Program Manager (PM). The PEO/PM is responsible for determining the hazard class/division of the item along with the other explosive characteristics not later than as part of the cataloging procedure described in Chapter 6.3 of this volume.

f. Field Activities and Contractor Facilities. Each ordnance activity/facility shall have an Explosives Safety Officer, designated in writing, reporting directly to the Commanding Officer/Director. Ordnance activities and facilities are directly responsible for the safety of all ordnance in their custody and for the safety of all personnel, equipment, and facilities inside and outside the gate during the presence of ordnance at their activity or facility.

7.1.1.5 Organizational Relationships. The organizational relationships of the commands involved in explosives safety management are depicted in Figure 7-1-1.

7.1.2 Joint Hazard Classification System (JHCS).

7.1.2.1 General. NAVSEAINST 8020.08 is the Joint-Service instruction for the Navy Explosives Hazard Classification Program, outlining program responsibilities and the interim and final hazard classification processes. Since 1992 the JHCS has been the authoritative source, within DoD, for hazard classification of non-nuclear ordnance. The publication of the JHCS provides a single-source authoritative document for hazard classification data which takes precedence over conflicting information found elsewhere.

7.1.2.2 Description. The JHCS provides a means for ensuring the proper assignment of a Hazard Class Division (HC/D) code, a storage compatibility group, and accurate explosive weights for calculating appropriate separation distances. The assignment of these codes and explosive weights occurs before or as part of the cataloging process for new ordnance items. The data necessary for hazard classification is specified in the PM's checklist. The assignment of these codes and explosive weights can be based on either test results on the specific item being introduced, or on test results of other like items which already are or have been in the active inventory. Any changes to the item or packaging configuration requires that these codes and explosive weights be reviewed for required changes.

7.1.2.3 Responsibilities:

a. The U.S. Army, Defense Ammunition Center (DAC), located at McAlester, OK, is responsible for maintaining the database which contains the DoD JHCS data.

b. Each Military Department has a Hazard Classifier. The Hazard Classifier for DoN (Navy and Marine Corps Ordnance) is located in the NOSSA.

7.1.2.4 Hazard Classification Process.

a. NAVSEAINST 8020.08 (series) provides the tests and tri-Service coordination process for hazard classification within DoD. The objective is to be in compliance with Federal Regulations for the safe transport of hazardous materials as published in Title 49, Code of Federal Regulations and SW020-AC-SAF-010; and to be in compliance with Navy requirements for the safe storage of ordnance as published in NAVSEA OP 5. Both Title 49, Code of Federal Regulations and SW020-AC-SAF-010 make provisions for interim hazard classification during item development and for final hazard classification once the item configuration and packaging is finalized.



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b. **Interim Hazard Classification.** An interim hazard classification is normally used during the development cycle of an ordnance item to permit shipment; however, it can be used in other situations. It is assigned by the appropriate Hazard Classifier, and must be requested in writing and support by test data. A copy of the interim hazard classification must accompany any shipments of the item over public roadways.

c. **Final Hazard Classification.** Once the PEO/PM submits the cataloging request form to Naval Operational Logistics Support Center (NOLSC-AMMO) and the hazard classification data to the Hazard Classifier, the process to obtain a final hazard classification begins. The Hazard Classifier will review the data and assign a hazard classification, UN number, proper shipping name, and storage Net Explosive Weight (NEW). This information will be forwarded to DAC (Army Hazard Classifier), the Air Force Safety Agency (Air Force Hazard Classifier), and DDESB for approval. When approved, the information is forwarded to the Department of Transportation (DOT), via the Military Surface Deployment and Distribution Command (SDDC) <http://www.sddc.army.mil> (formally Military Traffic Management Command (MTMC)) for assignment of an EX registration number. DOT forwards a copy of the letter assigning the EX number to DAC who enters the item into the JHCS database. The JHCS database only contains ordnance items which have received final hazard classification. DAC forwards the EX numbers to the other Service Hazard Classifiers. The Navy Hazard Classifier enters the data into NOLSC-AMMO's Ordnance Information System-Wholesale (OIS-W). Once the item has been assigned an EX number, the item can be shipped by commercial conveyance.

d. All validated explosives safety data (HC/D, NEW, EX number, etc.) is then available in the FLIS catalog database for other Service users, in the OIS-W catalog database for access by OIS-W users, and in SW0201-AC-SAF-010 publications for all Fleet unit, field activity, and contractor facility users.

7.1.2.5 JHCS Database. The JHCS database is designed to allow field activities to easily retrieve the latest explosive hazard classification data. The system is managed on behalf of the DDESB by the DAC's Technical Center for Explosives Safety (USATCES). Any authorized user with an assigned password can access the system using a computer with 486/66 mHz or higher processor with modem or Local Area Network (LAN) connectivity to the World Wide Web

(WWW) and a mouse. Many data screens have been optimized for displaying on monitors set at 800 by 600 resolution. Their software requirements are Netscape or Internet Explorer or equivalent browser software version 4 or higher capable of handling Java Script programs. To initiate the procedure for becoming an authorized user and obtaining a password, log on to <https://www3.dac.army.mil/esidb/login/request/> and fill out the request for login and authentication form. The database contains 27 data elements for each ordnance item. The query capabilities of the system allows you to request information in any of the following formats:

- a. List JHCS data by NSN.
- b. List JHCS data by DoDIC.
- c. List JHCS data by Part/Drawing Number.
- d. List JHCS data by Nomenclature.
- e. Perform Query Form.

7.1.3 United Nations Organization (UNO) Hazard Classification System. DoD uses the UNO classification system to identify the hazard characteristics of non-nuclear ordnance and explosives. These hazard characteristics are the focal point around which the safety standards have been established.

7.1.3.1 UNO Classes. The UNO classification system contains nine hazard classes. Class 1 and Class 6, apply to non-nuclear ordnance and explosives. Class 1 consists of ordnance and explosives, and blasting agents. Class 6 consists of poisonous substances (Poison B), irritating materials, and disease or infectious etiological agents. If the ordnance item to be classified contains a hazardous material such as: fuel, oxidizer, or compressed gas which presents a greater hazard in transportation than the Class 1 material, then the protocol for the predominant hazard should be used rather than that for Class 1 materials.

7.1.3.2 Class/Divisions. Hazard classes are further divided into divisions that indicate the primary characteristics and associated hazards. The UNO Class/Divisions are identified and defined in depth in NAVSEA OP 5, Volume 1. The predominant Class/Divisions used for non-nuclear ordnance are as follows:

- a. Class 1 Division 1. Mass detonating.
- b. Class 1 Division 2. Non-mass detonating, fragment producing.

c. Class 1 Division 3. Mass fire, minor blast or fragment.

d. Class 1 Division 4. Moderate fire, no blast.

e. Class 1 Division 5. Very insensitive substance (with a mass explosion hazard).

f. Class 1 Division 6. Extremely insensitive item.

g. Class 6 Division 1. Poisonous materials.

h. Class 6 Division 2. Infectious substances.

7.1.3.3 Storage Compatibility Groups (SCGs). The following SCGs are based on the UN system and are the reference for all the storage compatibility charts used in managing non-nuclear ordnance.

a. Group A. Primary explosive substance. Examples are lead azide, lead styphnate, mercury fulminate, tetracene, dry RDX and dry PETN. Group A materials are prohibited aboard combatant ships.

b. Group B. Articles containing a primary explosive substance and not containing two or more effective protective features. Some articles, such as detonators for blasting and primers, cap-type, are included, even though they do not contain primary explosives. Examples are detonators, blasting caps, small arms primers, and fuzes without two or more safing features.

c. Group C. Propellant explosive substance or other deflagrating explosive substance or article containing such explosive substances. Examples are single-, double-, triple-based, and composite propellants, rocket motors (solid propellant), and ammunition with inert projectile.

d. Group D. Secondary detonating explosive substance or black powder or article containing a secondary detonating explosive substance, in each case without means of initiation and without a propelling charge, or articles containing a primary explosive substance and containing two or more effective protective features. Examples are bulk TNT, Composition B, wet RDX, bombs, projectiles, warheads, or fuzes with two or more effective protective features.

NOTES

Where sufficient stowage space is available, it is desirable to store bulk high

explosives (HE) separately from ammunition containing HE even though they are both in the same capability group.

e. Group E. Articles containing a secondary detonating explosive substance, without means of initiation, with a propelling charge (other than one containing flammable liquid or hypergolic liquid). Examples are artillery ammunition, rockets, or guided missiles.

f. Group F. Articles containing a secondary detonating explosive substance with its own means of initiation, with a propelling charge (other than one containing flammable liquid or hypergolic liquid) or without a propelling charge. Examples is a grenade.

g. Group G. Pyrotechnic substances or articles containing a pyrotechnic substance, or articles containing both an explosive substance and an illuminating, incendiary, tear-producing, or smoke producing substance (other than a water-activated article or one containing white phosphorus (WP), phosphide or flammable liquid or gel or hypergolic liquid). Examples are flares, signals, incendiary or illuminating ammunition, and other smoke or tear producing devices.

NOTES

Some compatibility Group G articles may contain air activated (pyrophoric) material. These articles are assigned a "G" only if they are designed such that the pyrophoric properties in the storage and transportation configuration do not present a special risk.

h. Group H. Articles containing both an explosive substance and white phosphorus (WP).

i. Group J. Articles containing both an explosive substance and flammable liquid or gel. Examples are liquid or gel filled incendiary ammunition, Fuel-Air Explosive (FAE) device, and flammable liquid fueled missiles.

j. Group K. Articles containing both an explosive substance and a toxic chemical agent. Articles in this group contain chemicals specifically designated for incapacitating effects more severe than lachrymation. Examples are artillery or mortar ammunition, fuzed or unfuzed, grenades, rockets or bombs filled with a lethal or incapacitating chemical agent.

k. Group L. Explosive substance or articles containing an explosive substance and presenting a spe-

cial risk needing isolation of each type. Examples are prepackaged hypergolic liquid-fueled rocket engines, TPA (Plasticized Triethylaluminum) (thickened TEA (Triethylaluminum)), and damaged or suspect ordnance of any group.

l. Group N. Articles containing only Extremely Insensitive-Detonating Substances (EIDS). Examples are bombs and warheads.

m. Group S. Substances or articles so packed or designed that any hazardous effects arising from accidental functioning are confined within the package. That is unless the package has been degraded by fire, in which case all blast or projection effects are limited to the extent that they do no significantly hinder or prohibit firefighting or other emergency response efforts in the immediate vicinity of the package. Examples are explosive switches or valves.

7.1.4 Acquisition Explosives Safety.

7.1.4.1 Research. Explosives safety begins in the research environment during item development. NAVSEA OP 5, Volume 1, covers the explosives safety regulations as they pertain to Research, Development, Test and Evaluation (RDT&E) activities.

7.1.4.2 Weapon System Explosives Safety Review Board. The WSESRB is designated by the CNO to review safety aspects of non-nuclear ordnance and to make recommendations to the responsible Naval Command or PEO/PM. All newly introduced Navy ordnance items will be reviewed by the WSESRB to assure that safety requirements are met. No ordnance acquisition program, will proceed to Approval for Full Production (AFP) without WSESRB safety approval or certification as stated in NAVSEAINST 8020.06.

7.1.4.3 Production. Production explosives safety issues are specifically addressed in NAVSEA OP 5 Volume 1, Chapter 9. This includes SOPs used in production operations which are regulated by NOSSA Instruction 8023.11. The NAVSEA instruction defines the processes requiring an SOP and the general contents and outline of an acceptable SOP.

7.1.5 Maintenance Explosives Safety. Maintenance explosives safety issues are the same as for production. The regulations identified in subparagraph 7.1.4.3 also apply specifically to maintenance processes.

7.1.6 Explosives Safety Ashore.

7.1.6.1 Regulation. The safe research, development, production, maintenance, care, handling, storage, use,

and disposal of non-nuclear ordnance items at Navy and Marine Corps shore activities, regardless of ordnance and explosives ownership, is under the cognizance of NOSSA as delegated by NAVSEASYS-COM. Ordnance processes shall conform to the regulations stated in NAVSEA OP 5, Volume 1, as well as the safety standards promulgated by the DON and applicable federal, state, and local regulations that are not in conflict with those of COMNAVSEASYS-COM. NAVSEA OP 5, Volume 1, organizes the ordnance and explosives regulations into three subsections: general regulations, specific regulations, and inspection and surveillance policies.

7.1.6.2 Storage Compatibility. Different types of ordnance stored in magazines ashore can only be stored in the same magazine if authorized by the storage compatibility chart contained in SW020-AC-SAF-010 reproduced in Figure 7-1-2.

7.1.7 Explosives Safety Afloat.

7.1.7.1 Regulation. The detailed specifications and blueprints for construction of Navy ships designate the only authorized ordnance and explosives spaces or magazines for each ship type and class. The explosives safety requirements for non-nuclear ordnance aboard all Navy ships is found in NAVSEA OP 4. The Commanding Officer of a commissioned Navy ship or other craft that is at a pier or wharf that forms part of a Naval shore activity or is in waters adjacent to a Naval shore activity as defined by local regulations has direct responsibility for compliance with all ship and station safety regulations that concern ordnance and explosives within the ship in conformance with orders of the Commanding Officer of the Naval shore activity concerned. The Quantity-Distance standards contained in NAVSEA OP 5, Volume 1, for piers, wharfs, and anchorage facilities apply to ships with cargo ordnance stowed aboard, and to all ships during loading, offloading, stowage, or shifting of ordnance. Navy combatant ships and tenders must comply with the standards set forth in OPNAVINST 8020.14 while berthed at U.S. Naval Stations and similar support activities.

7.1.7.2 Stowage Compatibility. Ordnance can only be stowed together in the same magazine if authorized by the appropriate stowage compatibility chart contained in NAVSEA OP 4. The Stowage Compatibility Chart for Combatant Ships is reproduced in Figure 7-1-3. Detailed compatibility charts for stowage of ordnance aboard other types of naval vessels are also contained in NAVSEA OP 4. Stowage compatibility of military

ordnance aboard commercial vessels shall be as described in 49 CFR 176.83(c) and (f).

7.1.8 Explosives Safety Ashore, Advanced Bases.

7.1.8.1 Regulation. The explosives safety requirements for designated overseas ordnance activities is found in NAVSEA OP 5, Volume 3. In addition to the these requirements, overseas activities must also comply with all host country regulations which are more restrictive than the requirements in NAVSEA OP 5, Volume 3.

7.1.8.2 Storage Compatibility. Ordnance stored in magazines ashore overseas at advanced bases can only be stored together in the same magazine if authorized by the appropriate storage compatibility chart contained in NAVSEA OP 5, Volume 3, which is reproduced in Figure 7.1.4.

7.1.9 Transportation Explosives Safety.

7.1.9.1 Regulations. Safety regulations and requirements for shore station operations involving inspection, loading, unloading, and on station transportation of non-nuclear ordnance and explosives are found in NAVSEA OP 5, Volume 1. Requirements for in-transit shipments of ordnance and explosives are found in Public Law, DOT regulations, NAVSEA SW020-AC-SAF-010, and Military Sealift Command (MSC) regulations.

7.1.9.2 Transportation Compatibility. Ordnance can only be stored together in the same transport vehicle if authorized by the storage compatibility chart contained in SW020-AC-SAF-010 which is reproduced in Figure 7.1.5.

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Groups	A	B	C	D	E	F	G	H	J	K	L	N	S
A	X	Z											
B	Z	X	Z	Z	Z	Z	Z					Z	X
C		Z	X	X	X	Z	Z					Z	X
D		Z	X	X	X	Z	Z					Z	X
E		Z	X	X	X	Z	Z					Z	X
F		Z	Z	Z	Z	X	Z					Z	X
G		Z	Z	Z	Z	Z	X					Z	X
H								X					X
J									X				X
K										Z			
L													
N		Z	Z	Z	Z	Z	Z					X	X
S		X	X	X	X	X	X	X	X			X	X

NOTES:

1. The marking "X" at an intersection of the above chart indicates that these groups may be combined in storage. Otherwise, mixing is either prohibited or restricted per Note 2 below.
2. The marking "Z" at an intersection of the above chart indicates that, when warranted by operational considerations or magazine nonavailability, and when safety is not sacrificed, logical mixed storage of limited quantities of some items of different groups may be approved by NOSSA. Approval is not to be considered a waiver. Combinations that violate the principles of paragraph 2.2.4 require justification by waiver or exemption. Examples of acceptable combinations of Class 1 are:
 - a. Division 1, Group A initiating explosives with Division 1, Group B fuzes not containing two or more independent safety features.
 - b. Division 3, Group C bulk propellants or bagged propelling charges with Division 3, Group G pyrotechnics without their own means of initiation.
3. Equal numbers of separately packaged components of complete rounds of any single type of ammunition may be stored together. When so stored, compatibility is that of the assembled round; i.e., WP filler in Group H, HE filler in Groups D, E, or F, as appropriate.
4. Ammunition designated "practice" by NSN and nomenclature may be stored with the fully loaded ammunition it simulates.
5. Mixing of compatibility groups (except items in Groups A, K, L and N) in limited quantities is authorized by NAVORDSAFECACCT. Such mixed storage is not to exceed a total of 1,000 pounds NEW and will be considered as the highest hazard division included.
6. Group K requires not only separate storage from other groups, but may also require separate storage within the group. NAVORDSAFECACCT shall determine which items in Group K may be stored together and those which must be stored separately.
7. Ammunition items without explosives which contain substances properly belonging to another hazard class may be assigned to the same compatibility group as items containing explosives and the same substance, and be stored with them.
8. For purposes of mixing, all items must be packaged in approved storage containers. Items shall not be unpackaged at storage locations.
9. Articles of compatibility Group B and F shall each be segregated in storage from articles of other compatibility groups by means which are effective in the prevention of propagation to those articles.
10. When ammunition or ammunition components are assigned to hazard classes 2 through 9, they may be stored in accordance with the compatibility group assigned. Quantity-distance requirements are in accordance with the item being stored.
11. If dissimilar hazard Class/Division 1.6, Group N munitions, such as Mk 82 and Mk 84 GP Bombs, are mixed together and have not been tested to assure non-propagation, the mixed munitions are to be considered hazard Class/Division 1.2, Group D for purposes of transportation and storage.

Figure 7-1-2. Storage Compatibility Chart Ashore

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Groups	A	B	C	D	E	F	G	H	J	K	L	N	S
A	1												
B		X											X
C			X	X	X		6		5			X	X
D			X	X	X		6		5			X	X
E			X	X	X		6		5			X	X
F						X							X
G			6	6	6		6					6	X
H								X					X
J			5	5	5				X		4	5	X
K										X			
L									4		X		
N			X	X	X		6		5			X	X
S		X	X	X	X	X	X	X	X			X	X

NOTES: (An "X" indicates permissible stowage. A number refers to a numbered note restricting stowage. A blank space indicates prohibited stowage.)

1. Compatibility Group A is prohibited aboard combatant ships.
2. Hazard Class/Division 1.4 items of any Compatibility Group or combination or Compatibility Groups may be stowed in any magazine spaces except those primarily designated for Compatibility Groups K or L. For example, 1.4C and 1.4D items may be stowed in a Compatibility Group H space. This note applies to all permissible combinations of the compatibility chart.
3. Items assigned to Hazard Classes 2 through 9 for transportation purposes and a Storage Compatibility Group for storage purposes may be stowed as Hazard Class/Division 1.4. For example, an item assigned a classification of 9S may be stowed as 1.4S and Note 2 applies. This note applies to all permissible combinations of the compatibility chart.
4. FAE weapons and Target Drone AQM-37A are compatible in stowage. FAE weapons require less stringent certified fuel facilities, and can be stowed in hypergolic magazines, but hypergolic fueled items cannot be stowed in magazines certified for FAE weapons only. FAE weapons and Target Drone AQM-37A must be stowed in a certified magazine in accordance with NAVSEA S9000-AB-GTP-010.
5. Compatibility Group J missile systems or rocket motors only. Compatibility Group J drones, incendiaries, napalm and FAE weapons are prohibited except as provided for in Note 4.
6. Commercial Fireworks are forbidden aboard naval vessels. Thermite (TH) ammunition shall be stowed in topside jettisonable lockers or other ready service locker overhanging the ship where direct burn-through will impact the water. When these lockers are not available, AW ships may stow thermite filled ammunition in the lowest magazine provided they are stowed in their original shipping containers in a separate stack or stowed on the bottom of a stack of other ammunition.
7. Chemical ammunition in different stowage compatibility groups shall be stowed in separate CW magazines. This note applies to all permissible combinations of the compatibility chart.

Figure 7-1-3. Stowage Compatibility Chart for Combatant Ships

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Groups	A	B	C	D	E	F	G	H	J	K	L	N	S
A	X	X											
B	X	X	X	X	X	X	X						X
C		X	X	X	X	X	X					X	X
D		X	X	X	X	X	X					X	X
E		X	X	X	X	X	X					X	X
F		X	X	X	X	X	X						X
G		X	X	X	X	X	X						X
H								X					X
J									X				X
K										X			
L													
N			X	X	X							X	X
S		X	X	X	X	X	X	X	X			X	X
NOTE: Where intersections are marked with an "X", items are compatible and may be stored together.													

Figure 7-1-4. Storage Compatibility for Advanced Bases

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Groups	A	B	C	D	E	F	G	H	J	K	L	N	S
A		X	X	X	X	X	X	X	X	X	X	X	X
B	X		X	X	X	X	X	X	X	X	X	X	4/5
C	X	X		X	X	X	X	X	X	X	X	3	4/5
D	X	4	2		2	X	X	X	X	X	X	3	4/5
E	X	X	2	2		X	X	X	X	X	X	3	4/5
F	X	X	X	X	X		X	X	X	X	X	X	4/5
G	X	X	X	X	X	X		X	X	X	X	X	4/5
H	X	X	X	X	X	X	X		X	X	X	X	4/5
J	X	X	X	X	X	X	X	X		X	X	X	4/5
K	X	X	X	X	X	X	X	X	X		X	X	4/5
L	X	X	X	X	X	X	X	X	X	X	1	X	X
N	X	X	3	3	3	X	X	X	X	X	X		4/5
S	X	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	X	4/5	

NOTES:

1. A blank space in the Table indicates that no restrictions apply.
2. The letter "X" in the Table indicates that explosives of different compatibility groups may not be carried on the same transport vehicle.
3. The numbers in the Table mean the following:
4. "1" means an explosive from Compatibility Group L shall only be carried on the same transport vehicle with an identical explosive.
5. "2" means any combination of explosives Compatibility Groups C, D, or E is assigned to Compatibility Group E.
6. "3" means any combination of explosives from Compatibility Groups C, D or E with those in Compatibility Group N is assigned to Compatibility Group D.
7. "4" means CRF Title 49 chapter 177.835(g) applies when transporting detonators.
8. "5" means Division 1.4S fireworks may not be loaded on the same transport vehicle with Division 1.1 or 1.2 (Class A explosive) materials.
9. Except as provided in Note 4 of this figure, explosives of the same Compatibility Group but different Divisions may be transported together provided that the whole shipment is transported as though its entire contents were of the lower numerical Division (i.e. Division 1.1 being lower than Division 1.2). For example, a mixed shipment of Division 1.2 (Class A explosive) materials and Division 1.4 (Class C explosive) materials, both of Compatibility Group D, must be transported as Division 1.2 (Class A explosive) materials.
10. When Division 1.5 (blasting agent) materials, Compatibility Group D, are transported in the same freight container as Division 1.2 (Class A explosive) materials, Compatibility Group D, the shipment must be transported as Division 1.1 (Class A explosive) materials, Compatibility Group D.

Figure 7-1-5. Transportation Compatibility Table for Class 1 Explosive Materials

CHAPTER 7.2**Physical Security Management****Table of Contents**

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CHAPTER 7.2

Physical Security Management

7.2.1 General.

7.2.1.1 Standards. Standards and criteria have been established for the physical security of Department of Defense (DoD) sensitive conventional Arms, Ammunition and Explosives (AA&E). These standards and criteria are intended to protect against loss or theft of AA&E at DoD activities and DoD contractor facilities. They apply to non-nuclear ordnance items during production, maintenance, storage, and transportation. Specific guidance on the physical security of AA&E is found in OPNAVINST 5530.13.

7.2.1.2 Perspective. The primary focus of physical security management is to minimize the risk of ordnance technology compromise, intentional damage, and theft. Even though there are personnel specifically assigned to physical security management positions at all echelon levels, everyone working with or around ordnance should consider themselves responsible for physical security, and identifying and minimizing risk.

7.2.1.3 Organizational Relationships. The organizational relationships of the commands whose major function is physical security management are depicted in Figure 7-2-1.

7.2.1.4 Responsibilities.

a. The CNO exercises general supervision and command authority for the AA&E physical security program in the Navy. Within OPNAV, the Special Assistant for Naval Investigative Matters and Security is responsible for supervising Navy physical security matters, and coordinates physical security policy, programs, and guidance which effect Navy and Marine Corps forces mutually with the Commandant of the Marine Corps (CMC).

b. Naval Ordnance Safety and Security Activity (NOSSA) is the principal authority for the Navy's AA&E physical security and ordnance transportation security programs and is tasked by the Chief of Naval Operations (CNO) to perform the following:

(1) Evaluate the Navy AA&E physical security posture and develop cost effective upgrades.

(2) Budget and program for all AA&E physical security program funding, except for electronic security systems, and provide CNO with Navy-wide resource requirements and related 6-year plans.

(3) Centrally manage, analyze, and maintain Navy statistical data on AA&E physical security matters and monitor AA&E physical security program objectives to ensure compliance with policies and standards.

(4) Manage the Navy AA&E security waivers and exceptions process.

(5) Implement Navy policy and guidance for the Ordnance Inventory Accuracy Management Program.

c. NSWCDIV Crane, the Navy's AA&E Physical Security Program Manager provides program support including the following:

(1) Issue, repair, and replace cylinders, locks, and keys for high and medium security locks.

(2) On behalf of NOSSA, reviews all AA&E physical security waivers & exceptions.

d. Naval Facilities Engineering Services Center (NFESC), is the DoD Technical Manager for lock, safe, vault, seal, and container programs, and provides program support in these areas.

e. Explosives Safety Support Offices (ESSOs). The ESSOs include physical security issues in their explosives safety program inspections of shore activities and afloat units in support of NOSSA.

f. The ordnance item PEO/PM is responsible for determining the security risk category of the specific item as part of the cataloging procedure described in Chapter 6.3 of this volume. The security risk category is assigned in accordance with procedures found in DoD 5100.76M. This is accomplished by using a Decision Logic Table that results in a given item amassing a numerical value which relates to a risk category code.

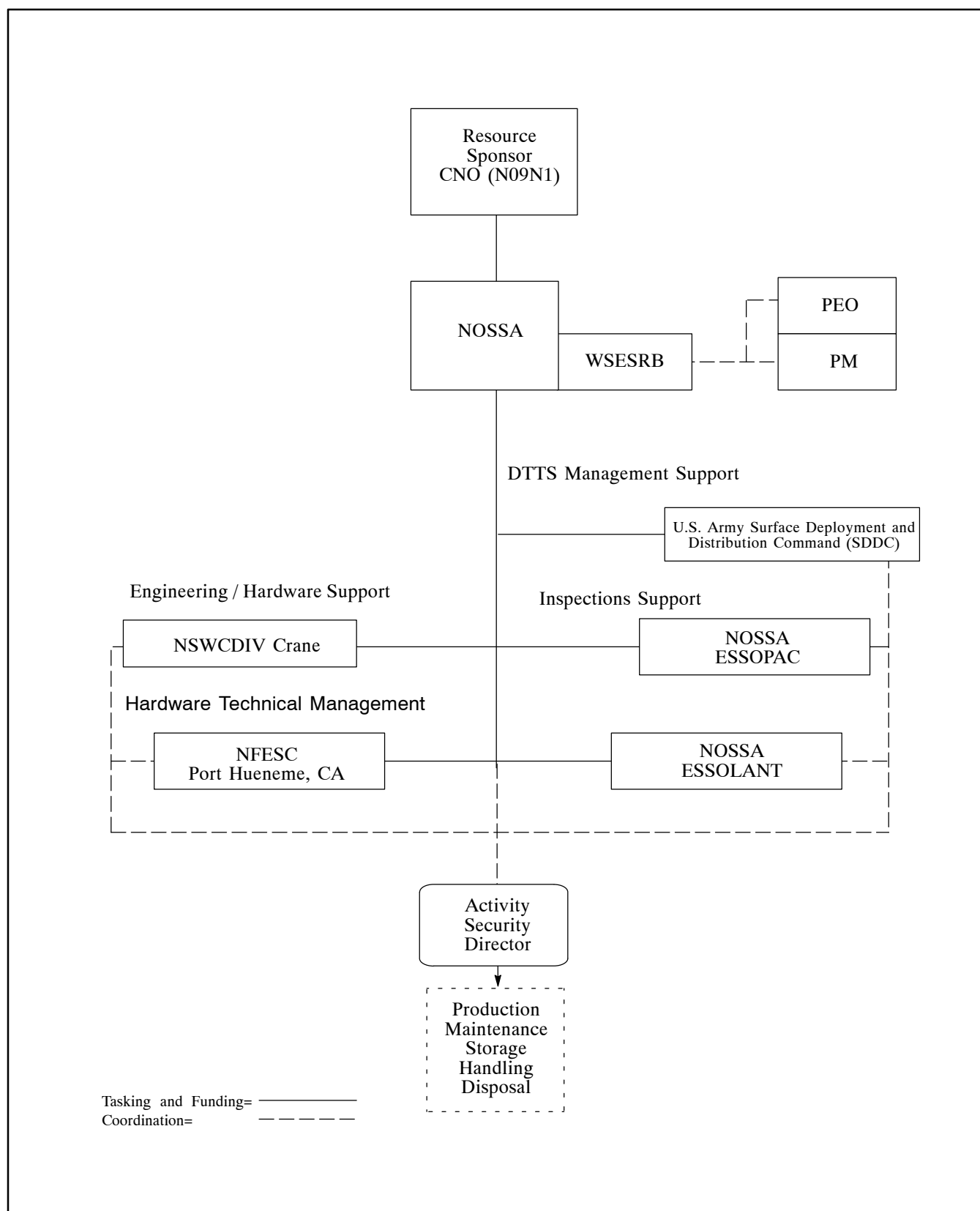


Figure 7-2-1. Physical Security Management Organizational Relationships

g. PHS&T Department, NSWCDIV Indian Head Detachment Earle, NJ. The PHS&T Department is responsible for placing the item security code, along with the other item catalog data, into the SW020-AC-SAF-010/020/030 as stated in Chapter 6.3 of this volume.

h. Field Activities and Contractor Facilities.

(1) Assign an AA&E Security Officer in writing, reporting directly to the Commanding Officer/Director.

(2) Responsible for the security of all ordnance in their custody.

(3) Appoint in writing a key and lock custodian, whose duties include assuring proper custody and handling of AA&E keys and locks.

(4) Ensure an AA&E security survey is conducted at least every 12 months, and maintain records of the three most recent surveys for external review.

(5) Ensure submission of a special incident report in accordance with NAVSUP Pub P-724, Chapter 6, Section 2 and OPNAVINST 5530.13, Chapter 7, for reportable AA&E stolen, lost, unaccounted for, or recovered; this includes gains or losses due to inventory adjustments.

7.2.2 Defense Transportation Tracking System (DTTS).

7.2.2.1 United States Transportation Command (US-TRANSCOM) <http://www.transcom.mil/> and its subordinate command, Military Surface Deployment and Distribution Command (SDDC) <http://www.sddc.army.mil> are responsible for DTTS management and maintenance.

7.2.2.2 Purpose. The primary mission of DTTS is intransit ordnance safety and security. The secondary

mission is supporting the DoD In-Transit Visibility (ITV) initiative by forwarding its complete ordnance movement and positioning database to USTRANSCOM Global Transportation Network (GTN) on an hourly basis.

7.2.2.3 System Description. DTTS uses satellite positioning and communication technology, digitalized mapping and 24-hour oversight to micromanage all DoD movements of sensitive conventional AA&E transported within the Continental United States (CONUS) by specially approved commercial motor carriers.

a. Method of Access to DTTS. There are two methods for accessing DTTS data: password protected direct dial-up, USTRANSCOM GTN and SMS and SDDC's Intelligent Road & Rail Information Server (IRRIS). IRRIS is available at <https://www.rris.tea.army.mil>. A userid and password are required for access.

b. DTTS System Customers and Users. DTTS services a wide variety of customers, including DoD ordnance shipping activities, many commercial AA&E manufacturing/maintenance contractors, Fleet Commanders (FLTCOMs), Type Commanders (TYCOMs) and various ordnance logistics and transportation command elements.

7.2.2.4 Capabilities. DTTS offers a variety of ordnance movement information on two different levels of access, ordnance shipping/receiving activities, and DoD management elements. Movement information includes such level of detail as Security Risk Category, Hazard Class/Division, and Net Explosive Weight (NEW). Ordnance shipping and receiving activities can obtain details on ordnance shipments or receipts. Management activities such as Naval Operational Logistics Support Center (NOLSC-AMMO), USTRANSCOM, the U.S. Army's Joint Munitions Center (JMC), and Headquarters U.S. Air Force and Authorized users can obtain broad reports involving total movements.

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SRC	DEFINITIONS
1	HIGHEST SENSITIVITY (CATEGORY I). Non-nuclear missiles and rockets in a ready-to-fire configuration (e.g., HAMLET, REDEYE, STINGER, DRAGON, LAW, VIPER) and explosive rounds for non-nuclear missile and rockets. This category also applies in situations where the launcher (tube) and the explosive rounds, though not in a ready-to-fire configuration, are jointly stored or transported.
2	HIGH SENSITIVITY (CATEGORY II). Arms, Ammunition, and Explosives.
3	MODERATE SENSITIVITY (CATEGORY III). Arms, Ammunition, and Explosives.
4	LOW SENSITIVITY (CATEGORY IV). Arms, Ammunition, and Explosives.
5	HIGHEST SENSITIVITY (CATEGORY I). Arms, Ammunition, and Explosives with a physical security classification of SECRET (see Note 1).
6	HIGHEST SENSITIVITY (CATEGORY I). Arms, Ammunition, and Explosives with a physical security classification of CONFIDENTIAL (see Note 1).
7	UNCONTROLLED/UNCLASSIFIED. Items coded “7”, UNCONTROLLED/UNCLASSIFIED, require normal storage accountability, physical inventory controls as is appropriate for any Department of the Navy property and <u>demilitarization</u> prior to disposal.
8	HIGH SENSITIVITY (CATEGORY II). Arms, Ammunition, and Explosives with a physical security classification of CONFIDENTIAL (see Note 1).
S	SECRET. Items coded “S”, SECRET, will be shipped as required by DoD Directive 5200.1R which is incorporated in OPNAVINST 5510.1. All other security protection during the life cycle shall be in accordance with the standards specified for Category II items.
C	CONFIDENTIAL. Items coded “C”, CONFIDENTIAL, will be shipped and protected during the life cycle the same as for Category III items. An exception is the REDEYE man portable missile system which shall be shipped and protected as a Category I item.
U	UNCONTROLLED/UNCLASSIFIED. Items coded “U”, Uncontrolled/Unclassified, require normal storage accountability and physical inventory controls as is appropriate for any Department of the Navy property.
P	PILFERABLE. Items coded “P”, Pilferable, Include ammunition and explosives that are easily concealed, especially subject to theft, and desirable for personal use or sale for profit.
<p>NOTE:</p> <p>1. Items coded 5, 6, or 8 will be stored and transported in accordance with the provisions of DoD 5100.76M or DoD 5200.1R, “Information Security Program”, whichever is more stringent.</p>	

Figure 7-2-2. Security Risk Codes (SRCs)

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CHAPTER 7.3

Transportation Management

7.3.1 General.

7.3.1.1 Background. The transportation of Arms, Ammunition and Explosives (AA&E) and other non-nuclear ordnance is a complex function. The Naval Ordnance Safety and Security Activity (NOSSA) in conjunction with the Naval Operational Logistics Support Center (NOLSC-AMMO) develops and implements policy and procedures for the shipment of ammunition. Challenges are provided by the wide array of commodities involved and the cross-service organizational relationships that require internal and external coordination of the transportation logistics process.

7.3.1.2 Policy.

a. NAVSUP P-724, Chapter 7, describes the general policies, procedures, and responsibilities for performance of traffic management functions at Department of Defense (DoD) activities worldwide.

b. In accordance with specific direction provided by the Naval Operational Logistics Support Center (NOLSC) Norfolk, VA, all non-nuclear ordnance is shipped by surface lift (regardless of the Required Delivery Date (RDD) or priority) unless the Fleet Commander Approves airlift or unless premium service results in lower overall cost.

c. Navy Munitions Rule Implementation Policy (MRIP) CNO Memo Ser N457F/452 of 27 July 1998 provides guidance for the safe storage and transportation of military munitions once they become hazardous waste.

d. All ammunition requisitions, including related Military Standard Requisitioning and Issue Procedures (MILSTRIP) documents such as modifications, cancellations, rejections, etc. will be entered into the NOLSC-AMMO Ordnance Information System-Wholesale (OIS-W).

7.3.1.3 Responsibilities.

a. The CNO exercises general supervision and command authority for the application of technical

guidance prepared by the Commander, Naval Supply Systems Command (NAVSUP), the Commander, NOLSC-AMMO and the Commanding Officer NOSA. Within OPNAV the Deputy Chief of Naval Operations for Logistics (N4) is responsible for supervising Navy ordnance transportation matters, and coordinates ordnance transportation policy, programs and guidance which effects Navy and Marine Corps forces mutually with the Commandant of the Marine Corps (CMC).

b. NOSSA.

(1) Serves as the naval ordnance transportation authority for policy, internal and external interfaces and macro transportation issues. Interprets broad transportation management and safety security laws, rules and regulations of the Department of Defense (DoD), Secretary of Navy (SECNAV), Department of Transportation (DoT) and other Federal regulatory agencies.

(2) Develops Naval non-nuclear ordnance transportation policies and procedures that provides for the safe handling and transport of ammunition explosives and related hazardous materials.

c. NOLSC-AMMO.

(1) Serves as the Department of the navy single point of contact for coordination with the Joint Munitions Transportation Coordination Agency (JMTCA) for the Single Manager for Conventional Ammunition (SMCA) and non-SMCA common user ammunition movement requirements, other than Class V(W) OT Cog Marine Corps ground ammunition.

(2) Serves as the Navy logistics office responsible for coordinating, controlling and monitoring the movement of all overseas shipments of non-nuclear ordnance under the cognizance of the NOLSC-AMMO and SMCA. The same responsibility also pertains to the coordination of 2D Cog material within the Continental United States (CONUS).

d. United States Transportation Command (US-TRANSCOM): USTRANSCOM, as the DoD single manager for sea, land and air transportation, controls

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all DoD transportation assets except those that are service unique or theater assigned.

e. Military Surface Deployment and Distribution Command (SDDC): is the second echelon component of USTRANSCOM designated as the DoD single manager for military traffic, land transportation, inter-modal containers and common user ocean terminals, is responsible for the performance of traffic management function within CONUS. It functions as the joint service liaison between the DoT, commercial industry and other joint service organizations. Its mission is to provide responsive, flexible support in service organizations. Its mission is to provide responsive, flexible support in peace and war to operating forces of the U.S. Army, Navy, Air Force, Coast Guard and Marine Corps.

f. SDDC Operations Center: serves as the single USTRANSCOM focal point for the execution of surface inter-modal movements within the Defense Transportation System (DTS). Their responsibilities include procuring and booking surface inter-modal shipping schedules and the Integrated Booking System (IBS), negotiating ocean and inter-modal rates and related services to meet transportation requirements and manage the Defense Freight Railway Interchange Fleet (DFRIF) which supplements the capability of commercial transportation carriers.

g. Military Sealift Command (MSC): is a second echelon command and component of USTRANSCOM with primary responsibility for providing sealift service worldwide. MSC coordinates closely with the shipping services (Army, Navy, Air Force and Marine Corps) and with the other single manager transportation components, SDDC and the Air Mobility Command (AMC).

h. Fleet Commands, NOLSC, AMMOLANT/AMMOPAC, CMC CCG, Overseas Stations and Fleet Units:

(1) Review requirements and submit requisitions in a timely manner, taking into consideration short fall of funds available to move materials as well as the reduced means to move material. Revalidates current material requisitioning procedures against Uniform Material Movement and Issue Priority System (UMMIPS) standards to ensure proper use of RDD. Cites Transportation Account Code (TAC) with requi-

sition submission if special funds are allocated for movement.

(2) In accordance with specific direction provided by NOLSC Norfolk, VA all non-nuclear ordnance is to be shipped by surface lift regardless of RDD or priority unless premium service results in a lower cost. If airlift is required, provide justification at the time of MILSTRIP submission.

(3) NOLSC AMMOLANT/AMMOPAC assist Fleet activities in the coordination of retrograde.

7.3.1.4 Organizational Relationships. The relationships of the commands/offices whose major function is ordnance transportation management are identified in Figure 7-3-1.

7.3.2 Requirements.

7.3.2.1 Explosives Safety. Requirements for explosives safety during transportation are found in Chapter 7-1 of this volume and NAVSEA SW020-AG-SAF-010.

7.3.2.2 Physical Security. Transportation security standards and procedures used in safeguarding categorized ordnance and explosives are found in OPNAVINSTs 5530.13 and 5530.14, and NAVSEA SW020-AG-SAF-010. There are standards established for the transportation of ordnance as well as specific considerations for small quantity shipments, movement by commercial carriers, and FMS shipments.

7.3.2.3 Transportation Mode Requirements.

a. Motor Vehicles. All ordnance and explosives shipments, foreign and domestic, will comply with the UN recommendation. Additional safety requirements governing shipments within states may be imposed by the individual states and by municipalities through which shipments will move. Navy vehicles transporting ordnance and explosives are subject to all safety regulations applicable to common carriers, as well as to DoN regulations while transporting off-station. Navy owned on-station transportation must meet the requirements of NAVSEA SW023-AG-WHM-010. Specific procedures concerning vehicle types, fuel, cargo space, inspections, operating requirements, drivers' qualifications, explosives compatibility, parking, etc. are found in NAVSEA OP 5 Volume 1 and NAVSEA OP 5, Volume 1, and NAVSEA SW020-AG-SAF-010.

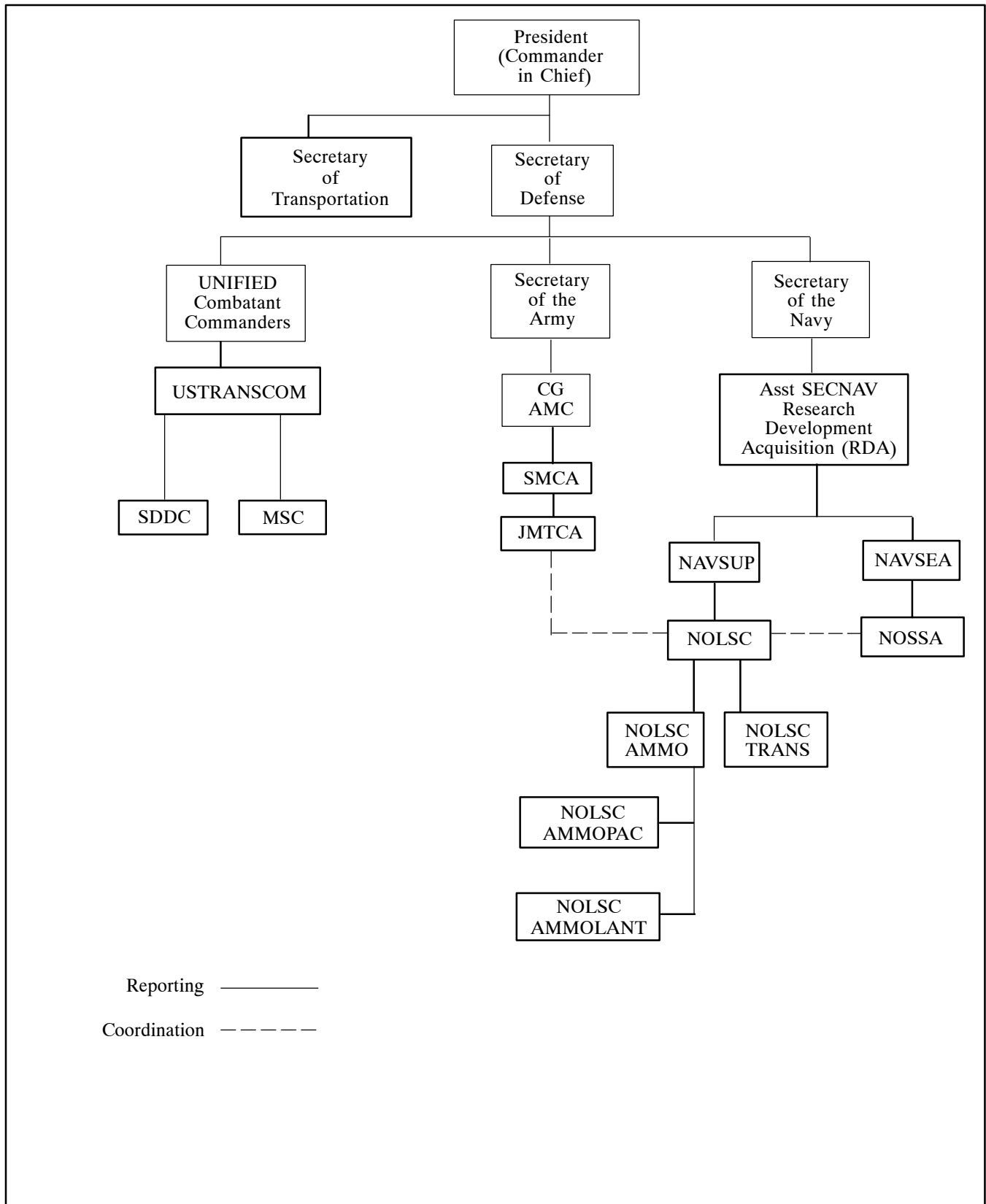


Figure 7-3-1. Transportation Management Organizational Relationships

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b. Railroad. DoT and Association of American Railroads Safety Regulations, pertaining to safety devices, safety guards, design of equipment, and the like, are mandatory for carrier owned railway equipment used to transport ordnance and explosives on and off Navy and Marine Corps shore activities. Navy owned on-station railcars not used in interchange or off-station service must meet the requirements of NAVSEA SW023-AG-WHM-010. Specific requirements regarding locomotives, signs and signals, railcar marking inspections, railroad operations, and operations at Naval facilities are found in NAVSEA OP 5, Volume 1.

c. Air Shipments. Regulations and requirements described in CFR Title 14 and Title 49, published in Bureau of Explosives Tariff NO BOE-6000, apply to air shipment by commercial aircraft. Regulations and requirements for packaging and handling dangerous

materials for transportation by military aircraft are found in NAVSUP PUB 505. Requirements for cargo and aircraft pre-loading inspection, aircraft loading, marking, electrical grounding, and other matters relating to air shipment of ordnance and explosives are found in NAVSEA SW020-AG-SAF-010.

d. Water Transportation. The trans-shipment of ordnance and explosives by water in vessels engaged in commercial service is governed by Military Sealift Command Regulations for Ammunitions and Explosives, NAVSEA SW020-AG-SAF-010, and CFR Title 49 Parts 171-179 Hazardous Materials Regulations. The trans-shipment of ordnance and explosives on Navy vessels is governed by the provisions of NAVSEA OP 4 and NAVSEA OP 5, Volume 1. These regulations and procedures include such items as small boat use, dunnage, loading regulations, and responsibility for safety.

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CHAPTER 7.4

Environmental Security Management

7.4.1 General.

7.4.1.1 National Defense and Environmental Protection. The Navy's ability to accomplish its mission requires daily operations in the land, sea, and air environments. National defense and environmental protection are and must continue to be compatible goals. In order to accomplish this mission element, personnel must be aware of the environmental laws and regulations which have been established by Federal, state, and local governments. OPNAVINST 5090.1 discusses Federal regulations and DoD requirements which apply to Navy ships and shore activities.

7.4.1.2 Perspective. The primary focus of environmental security management is to minimize the effect of non-nuclear explosive ordnance and their handling (production, maintenance, storage, and disposal) on the surrounding ecosystems. Even though there are actual personnel specifically assigned to environmental security management positions at all echelons, anyone working with or around ordnance should consider themselves responsible for the environment.

7.4.1.3 Responsibilities.

a. The CNO exercises general supervision and command authority for the application of Federal environmental regulations. Within OPNAV the Deputy Chief of Naval Operations (DCNO) for Logistics (N4) is responsible for supervising Navy environmental security matters, and coordinates environmental security policy, programs and guidance which effects Navy and Marine Corps forces mutually with the Commandant of the Marine Corps (CMC). As such, the DCNO (Logistics) shall:

(1) Monitor proposed Federal environmental legislation, Federal regulations and proposed rules, and coordinate Navy impact analyses, and ensure articulation of Navy positions and concerns in conjunction with the Navy Office of Legislative Affairs (OLA) and the Assistant Secretary of the Navy, Installations and Environment (I&E).

(2) Establish and regularly update policy, direct, and monitor progress of the Navy environmental and natural resources program.

(3) Serve as the OPNAV assessment sponsor for the environmental and natural resources programs, and as the OPNAV resource sponsor for shore activity environmental and natural resources protection requirements.

(4) Coordinate with resource sponsors, NAVCOMPT, DoD, and OMB in the reconciliation of environmental compliance requirements vs. budgeted resources.

b. Naval Ordnance Safety and Security Activity (NOSSA) will provide ordnance environmental security management coordination.

(1) Provides program management, technical, and administrative support for the Navy, Ordnance Environmental Support Office (OESO) per NAVSEAINST 5450.117.

(2) Supports the establishment of ordnance environmental directives, and instructions. Serves as the NAVSEA single point of conduct for ordnance environmental matters.

(3) Participates in NAVSEA Echelon II Environmental Compliance Evaluations (ECE) by providing ordnance environmental expertise.

(4) Provides the Program Manager (PM) for NAVSEA ordnance environmental funding.

c. OESO is responsible to:

(1) Ensure consistent positions, agreements, permit conditions, and responses to regulatory agencies on ordnance environmental issues, coordinating closely with affected shore activities, major claimants, and other service representatives.

(2) Serve as the primary Navy interface with Federal and State regulatory agencies on ordnance environmental issues.

(3) Coordinate exchange of ordnance environmental information among Navy shore activities, including distribution of Federal, state, and local laws, rules, and regulations.

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(4) Provide assistance to facilities in dealing with regulatory agencies on ordnance issues as requested.

(5) Provide data and information, technical review, and construction and installation environmental evaluations.

d. NOSSA Explosives Safety Support Offices Atlantic (ESSOLANT) and Pacific (ESSOPAC) are Category 2 detachments in active, fully operational status under a Director. Their mission's are to provide ammunition and explosives safety support operations to Department of the Navy (DoN) units Afloat and Ashore, and perform other tasks as assigned by the Commanding Officer, NOSSA. A detailed explanation of functions is found in NAVSEAINST 5450.113 and 5450.114.

e. Commanding Officers of shore activities shall:

(1) Comply with applicable substantive and procedural Federal, state, and local environmental laws and regulations, and continuously strive for improvements in all areas of pollution prevention.

(2) Cooperate with Federal, State, and local environmental regulatory officials.

(3) Integrate environmental compliance requirements into all levels of activity management through the application of program management procedures (including oversight, inspection, and identification) and by requesting sufficient resources to support environmental and natural resources programs.

(4) Apply for all Federal, state, and local permits, where appropriate, only if you are a Commanding Officer of a host activity. Coordinate permit conditions with all affected tenant commands. Include responsibilities for environmental and natural resources program, permits, fees and fines, in all host/tenant agreements. In those states or regions where environmental regulatory agencies allow tenant commands to submit and hold their own environmental permits, Commanding Officers of host commands may delegate authority to sign and hold permits to Commanding Officers of tenant commands.

(5) Plan, program, budget, and allocate funds for environmental protection costs.

7.4.1.4 Organizational Relationships. The organizational relationships of the commands/offices are depicted in Figure 7-4-1.

7.4.2 Environmental Security Program. The Environmental Security Program policies, definitions, and procedures are in a constant state of flux and differ from location to location. Any attempt to describe them in any detail would be unrealistic. The following will generally describe the program areas that specifically affect ordnance activities. The laws have been tried in court and the message has been very clear that ignorance is not an acceptable defense. The major impact of these programs is on ordnance activities involved in research, production, maintenance, and disposal. However, those activities solely involved in storage, handling, and use can be greatly impacted by these laws through one small accident. Not only are Navy activities and units accountable for violations, but individuals within each activity and unit are personally accountable as well.

7.4.2.1 Hazardous Materials and Waste Management. The terms "hazardous materials" and "hazardous waste" have specific legal and scientific definitions in Federal regulations. Hazardous Wastes (HW) are defined and regulated under the Resource Conservation and Recovery Act (RCRA), Subtitle C, as amended by the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA requires cradle to grave management of HW through a record keeping system that requires the manifesting of HW shipments from the generation point to disposal. The Federal Facility Compliance Act (FFCA) of 1992 requires that Federal facilities comply with all provisions of Federal, State, interstate, and local hazardous waste laws and regulations. FFCA also requires the EPA, in consultation with DoD, to issue regulations on the application of RCRA to military ordnance. The law allows the EPA and authorized states to enforce RCRA regulations at federal facilities.

7.4.2.2 Air Pollution Prevention. The Clean Air Act requires the EPA to set binding National Air Quality Standards, which define how clean the air must be. The Clean Air Act Amendments of 1990 represent the most recent revisions to the Clean Air Act. Standards have been set for six primary pollutants: carbon monoxide, lead, ozone, oxides of nitrogen, sulfur dioxide, and particulates (PM-10, particulate matter 10 microns in size or less). Air quality standards are achieved, maintained, and enforced by the states through State Implementation Plans (SIPs). SIPs specify emission limits and compliance schedules for pollu-

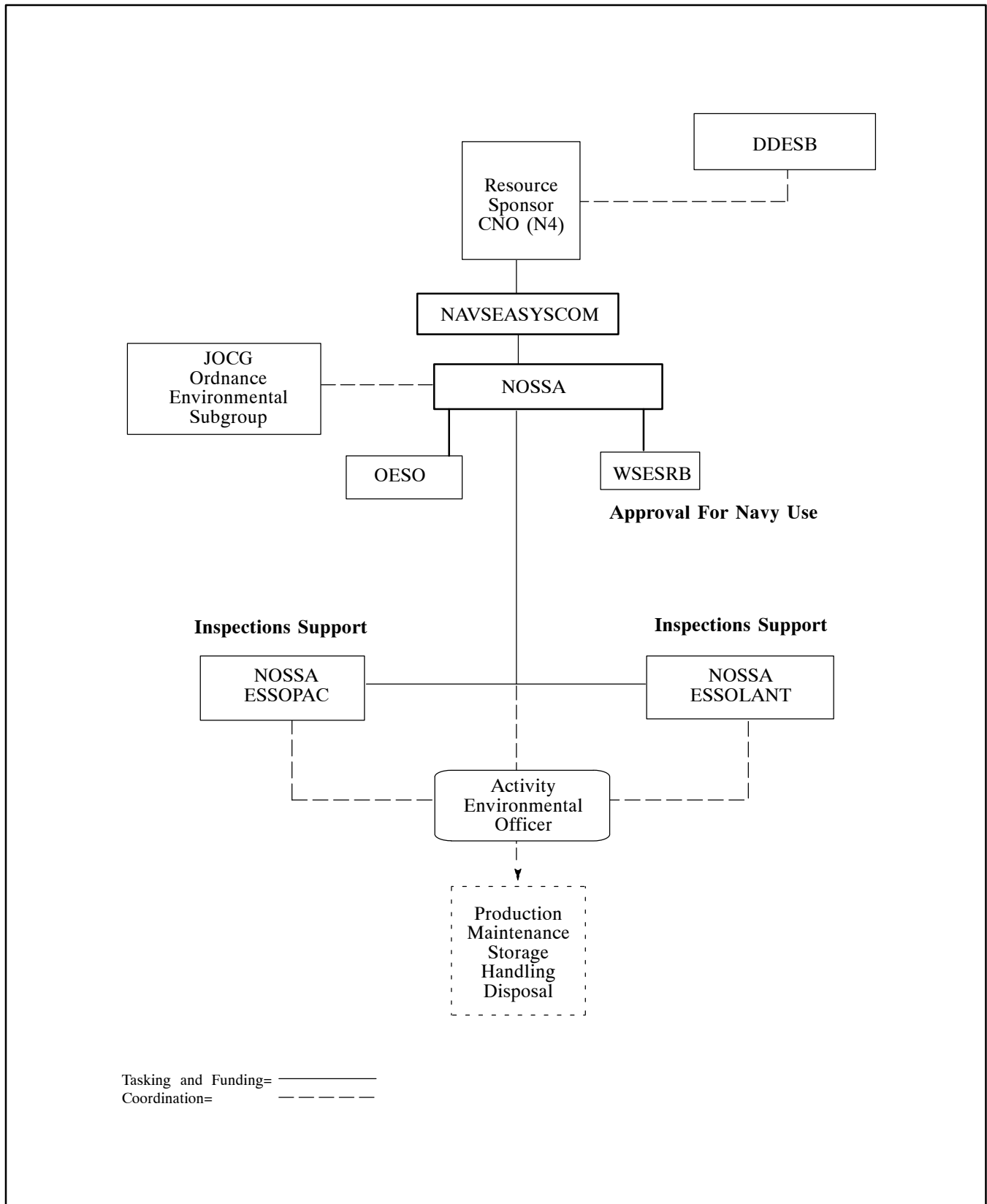


Figure 7-4-1. Environmental Security Management Organizational Relationships

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tion sources and are tailored to the needs of the different air quality control regions. This program is a specific concern for those ordnance activities involved in ordnance production, maintenance, and disposal processes which produce air pollutant emissions.

7.4.2.3 Wastewater Management. The Federal Water Pollution Control Act was issued to ensure restoration and maintenance of the integrity of the nation's navigable waters. The act incorporates provisions for regulating both domestic and industrial waste waters. The Clean Water Act (CWA) makes it illegal for any person, including Federal facilities, to discharge pollutants from a point source into the waters of the U.S. without a permit. The CWA Amendments of 1987 require federal agencies to ensure consistency with state regulations for the control of non-point source of water pollution such as runoff from industrial, residential, and agricultural lands. National Pollutant Discharge Elimination System (NPDES) permits are required for industrial facilities. An important compo-

nent of the NPDES permitting process is the pretreatment program which sets standards for the control of waste from indirect discharges; those from industrial sources of pollution which discharge effluent to municipal wastewater treatment facilities rather than directly into water bodies. This program is a specific concern for those ordnance activities involved in ordnance production, maintenance, and disposal processes which discharge pollutants from a point source or produce non-point source water pollution.

7.4.2.4 Ocean Dumping. The Marine Protection, Research, and Sanctuaries Act bars transport of any material from the U.S. for the purpose of dumping into the ocean waters without a permit issued by the EPA, and dumping material from outside the U.S. within the territorial sea or contiguous zone. Ocean dumping of ordnance may only be authorized on a case-by-case basis by the CNO. The single exception to this rule allows ocean dumping from ships and aircraft in an emergency to safeguard life at sea.

SECTION 8

Ordnance Demilitarization/Disposal Management

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CHAPTER 8.1

Disposal Responsibilities

8.1.1 General.

8.1.1.1 Policy.

a. DoD 4160.21-M provides policy and procedures for the utilization and disposition of excess, surplus, and foreign excess property, and specific reporting requirements for disposable property. It further defines the responsibilities of Defense Logistics Agency (DLA), Defense Reutilization and Marketing Service (DRMS), Defense Reutilization and Marketing Regions (DRMRs) Defense Reutilization and Marketing Offices (DRMOs), and the Inventory Control Points (ICP) in administering and/or accomplishing disposition of excess and surplus properties with interfacing organizations.

b. DoD 4160.21-M-1 identifies the items and categories of property requiring demilitarization, specifies their degree of demilitarization, and provides instructions for their transfer to the DRMO after demilitarization or declassification. Ordnance and related classified inert items are categories of property not authorized for transfer to a DRMO prior to demilitarization, declassification or inspection and certification as inert.

c. DoD 5160.65-M details the specific responsibilities of the Single Manager for Conventional Ammunition (SMCA) and the Military Services for demilitarization and disposal of ordnance and related inert items. It further states that non-nuclear ordnance demilitarization and disposal will be accomplished in the most efficient and cost effective manner (usually at the generating activity if the capability exists), and makes the Military Services responsible for all demilitarization accomplished at their respective activities.

d. OPNAVINST 8026.2 defines the policy, authority and responsibility for management of the Navy disposition process for excess, obsolete, unserviceable, and waste military munitions generated or received at Navy activities. The disposition process includes demilitarization, recycling, declassification and disposal.

e. NAVSEAINST 8027.02 is a Joint Service instruction which establishes demilitarization and dis-

posal policies, responsibilities, and procedures relating to requirements governing the concept, research, development, engineering, and release for production of all new or modified ordnance items and components. The instruction includes the format and content requirements of a Demilitarization plan.

f. NAVSUP P-724 provides the policy and procedures for management of Ammunition, Explosives, and other Dangerous Articles (AEDA), classified inert and unclassified inert ammunition items authorized for disposal from the active inventory account to an applicable disposal account.

g. Navy Military Munitions Rule Implementation Policy (MRIP) CNO Memo Ser N457F/452-98 of 27 July 1998, provides guidance to ensure compliance with the Military Munitions Rule (MMR) as well as guidelines for the management of Waste Military Munitions (WMM). In addition the MRIP:

- (1) Further defines when military munitions become waste.
- (2) Delineates responsibilities and authorities of the Designated Disposition Authority.
- (3) Dictates a Designated Disposal Activity (DDA) Evaluation process.
- (4) Dictates that DoD Components achieve uniformity in logistical accounting of WMM.
- (5) Outlines emergency destruct and emergency destruct and emergency response authority.
- (6) Codifies storage standards.

8.1.1.2 Perspective. The policies in the directives above and environmental laws, have molded the perspective of those involved in disposal management into one of removing ordnance items from Navy active inventory in the most environmentally friendly and cost effective manner. The drive is to consider alternate users of the items; acceptable, alternate uses for the items, or at least some of its components; or environmentally friendly ways of demilitarizing/disposing of all components of the item, with minimal transportation, as a last resort.

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8.1.1.3 Organizational Relationship. Figure 8-1-1 depicts the organizational relationships of those involved in disposal management.

8.1.2 Responsibilities.**8.1.2.1 Acquisition Program Executive Officers (PEO)/Program Managers (PM).**

a. The demilitarization process actually begins at the beginning of the ordnance item's lifecycle. The PEO/PM, as part of the process for obtaining Approval for Navy use from the Weapons System Explosives Safety Review Board (WSESRB), is responsible for developing and submitting a proven demilitarization plan as required by NAVSEAINST 8027.2, that will be implemented at any time during the projected life span of the item.

b. When ordnance items are presented for demilitarization without a demilitarization plan or when the demilitarization plan on file is no longer acceptable, the Demilitarization Program Office contacts the item's Acquisition Program Office, if still in existence, to work with them and their engineering agent(s) to develop a Depot Maintenance Work Requirements (DMWR) to specify an acceptable demilitarization plan. If the appropriate Acquisition Program Office is no longer in existence, then the Demilitarization Program Office will fund and direct the development of a DMWR to specify an acceptable demilitarization plan for the item(s).

8.1.2.2 Ordnance Demilitarization Program Manager (PM). OPNAVINST 8026.2 defines the demilitarization program and responsibilities for the Navy. NAVSUP P-724 implements the OPNAV instruction. The program responsibility has been assigned to Commander, Naval Supply System Command which has designated the Naval Operational Logistic Support Center (NOLSC-AMMO) to perform functions of worldwide management of demilitarization, recycling, declassification and disposal of excess, obsolete, unserviceable, and waste military and foreign munitions generated at Navy activities with the exception of large strategic rocket motors. The Demilitarization PM has the following responsibilities:

a. Develop, issue, and implement policies and procedures for the worldwide management and operations of the Navy munitions demilitarization, recycling, declassification and disposal program.

b. Developing and submitting Navy worldwide Demilitarization Program Objective Memorandum (POM) and budget to manage and process excess, obsolete, unserviceable and waste military munitions at Navy activities.

c. Review demilitarization and disposal plans developed as part of the integrated logistics support plans for new, converted or modified Navy munitions. Development and approval of demilitarization plans will be accomplished prior to Operational Test and Evaluation (OT&E) of all new, converted or modified munitions items.

d. Maintaining a close liaison with SMCA regarding demilitarization and disposal issues.

e. Establish Special Defense Property Disposal Accounts (SDPDAs) at selected Navy activities and identifying satellite generating activities for accountability, control and management of Navy excess, obsolete, unserviceable, and waste military munitions generated or received at Navy activities worldwide.

f. Maintain a centralized inventory management system for Navy munitions demilitarization, recycling, declassification and disposal actions. This system shall provide complete asset visibility with a transaction audit trail to ensure proper accountability, management and control.

g. Identify and confirm excess Navy ammunition items via the annual ordnance stratification with acquisition program managers and their acquisition agents. Support program managers/acquisition agents in the development of a 5-year forecast of ammunition demilitarization/disposal requirements based on anticipated obsolescence and projected delivery of replacement ordnance. Consolidate acquisition PM 5-year forecasts and provide to SMCA.

h. Screen items for which the Navy no longer has use through other services and Foreign Military Sales (FMS) program customers for potential use, recycling or reclamation, prior to requesting disposition from SMCA. When Received, provide disposition instructions to munitions custodians.

i. Assure demilitarization, recycling, declassification and disposal of munitions and related hazardous wastes are accomplished in accordance with Federal (to include host nation), State, DoD, and Service explosives safety and environmental regulations, policies and directives and maximize efficiency and resource conservation.

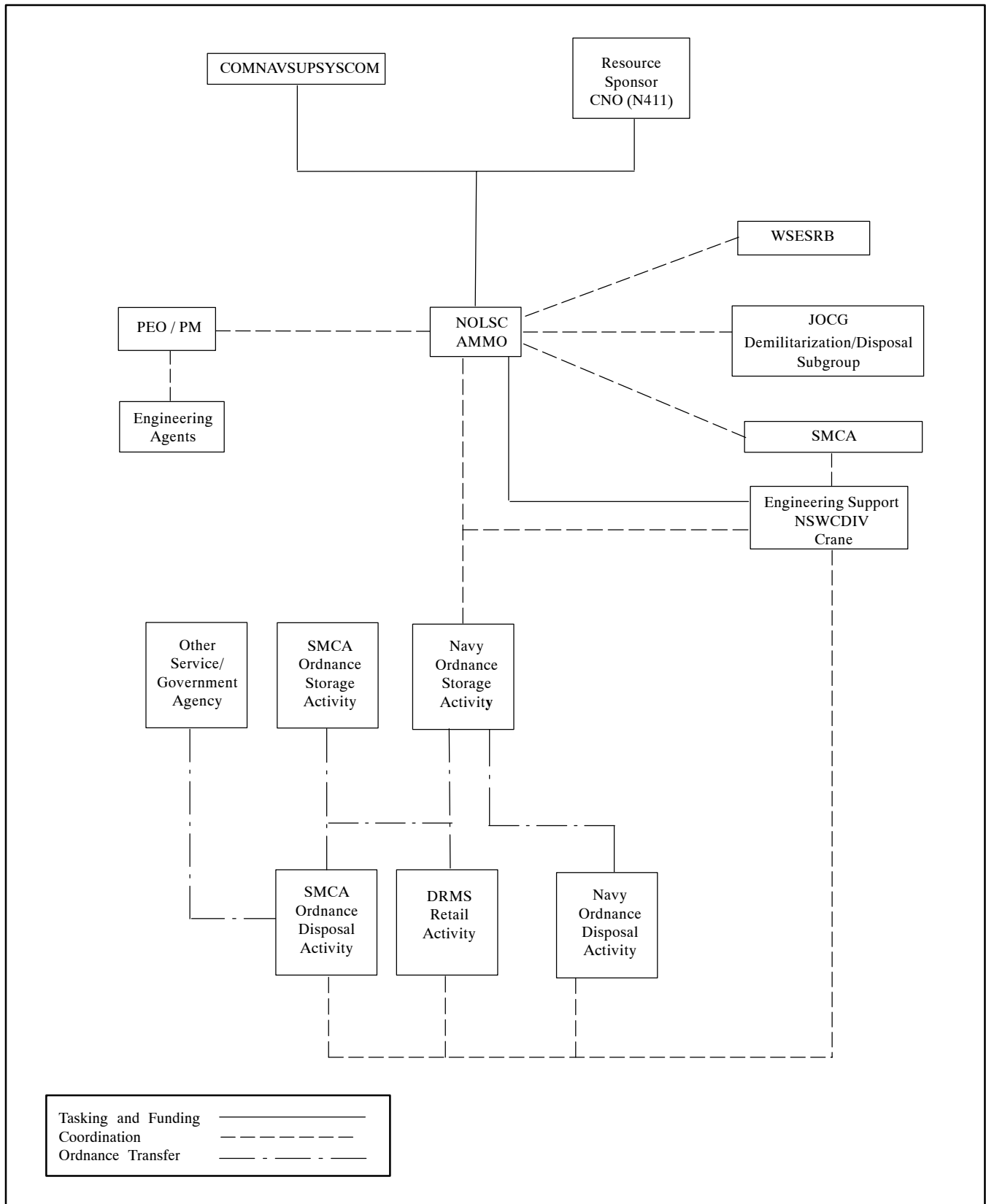


Figure 8-1-1. Demilitarization/Disposal Management Organizational Relationships

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j. Ensure that all proposed changes to DoD 4160.21-M-1, the Defense Demilitarization Manual, DoD 4160.21-M, the Defense Reutilization and Marketing Manual, or MILSTRIP/MILSTRAP regulations which may affect excess munitions inventory management or processing, are coordinated with the Navy Munitions Demilitarization Program Manager (NOLSC-AMMO) and the Navy DDA's.

k. As the lead Navy DDA, define procedures for all Navy DDAs to ensure consistency in management.

8.1.2.3 Navy DEMIL Technical Support Office. NSWCDIV Crane is tasked by the Demilitarization PM to provide the following engineering and support functions.

a. Design, procure, and install demilitarization equipment and facilities including related environmental control systems to ensure compliance of existing facilities with Federal, state, and local governing regulations.

b. Provide guidance in matters of operations pertaining to safety, environmental, and Military Munitions Rule requirements in coordination with the Demilitarization PM.

c. Assist the demilitarization PM in maintaining the centralized inventory system NSN file.

d. Provide other assistance to field activities and the PM, as tasked by the Demilitarization PM.

e. Perform stability tests on bulk explosives and propellants designated for commercial sale, as required by DoD 4160.21-M and NAVSEA OP 5, Volume 1.

f. Perform environmental testing, analysis, and evaluation of demilitarization processes, systems, and facilities to ensure compliance with pollution abatement requirements are complied with and that abatement systems and equipment performance meet Federal, State, and local government standards.

g. Develop processes, systems, and equipment to meet environmental standards for hazardous materials processing.

h. Provide for program interface with NOLSC-AMMO (N41), Mechanicsburg Pa. for change notice cards and change bulletin updates. Provide for program interface with DRMS for DoD screening and DoD in-transit reporting requirements. Provide for program interface with SMCA for Joint Conventional Ammunition Policies and Procedures (JCAPP) Demil-

itarization Handbook Volume 1 data, and with the Retail Ordnance Logistics Management System (ROLMS) program for file update at applicable field activities.

8.1.2.4 Special Accounts Property Disposal Offices (SAPDOs). Some ordnance activities, both CONUS and OCONUS, have a SAPDO. Each SAPDO services all of the Navy and Marine Corps ordnance activities in their geographical area and is responsible for the following:

a. Managing their Special Defense Property Disposal Account (SDPDA).

b. Receipt, control, handling, inventory, and disposition of demilitarization material.

c. Maintaining accountable records.

d. Coordinating workload plans for handling their demilitarization inventory.

e. Monitoring demilitarization operations.

f. Coordinating processing of inert material to the local DRMO.

g. Managing demilitarization funding for their activity.

h. Maintaining accurate records in the centralized inventory system for their SDPDA assets.

i. Submit annual, quarterly, and monthly financial status reports as required by the PM.

j. Implementation of the MRIP.

8.1.2.5 Field Activities. Activities generating materials for disposition and processing Disposal Release Order's (DROs) are subject to the policy guidance and procedural direction provided by a wide range of instructions. These include DoD 4160.21-M, DoD 4160.21-M-1, NAVSEA OP 5, NAVSEAINST 8027.2, NAVSUPINST 4440.156, NAVSUP P-485 Volume III, NAVSUP P-724, and the Navy Military Munitions Rule Implementation Policy, 27 July 1998. From these directives, the field activities generating excesses are responsible for the following:

a. Requesting disposition authorization for ordnance items which have been designated obsolete, unserviceable, uneconomically repairable, or surplus/excess to requirement of technical manager.

b. Preparing Disposal Turn-In Documents (DTIDs) upon receipt of a DRO from the Inventory Manager (IM), or for such material that meets criteria

for local demilitarization without need of prior reporting to the IM. DTIDs are required for all items, explosive ordnance or inert, authorized for demilitarization.

c. Processing expeditiously all DROs.

d. Releasing applicable stock records and transferring material for disposition to the nearest SAPDO. The SAPDO subsequently processes such material to a Military Service SPDA or to a DRMO.

8.1.2.6 Inventory Managers. DoD 4160.21-M, NAVSEAINST 8027.2, NAVSUP P-485 Volume III, and NAVSUP P-724 individually and collectively contain the responsibilities and procedures to be followed by the IMs, including the following:

a. Providing DROs to activities generating excess materials.

b. Defining, in conjunction with the technical manager, what constitutes declassification and including such information in the DRO.

c. Identifying on, or transmitting with, the DRO, the major key points of the item which must be demilitarized, designating the materials containing precious metals, and providing a Save List of subassemblies or components subject to reclamation in accordance with NAVSUPINST 4440.156.

8.1.2.7 Single Manager for Conventional Ammunition (SMCA) Responsibilities. The SMCA is assigned the following disposal responsibilities by DoDINST 5160.68.

a. Demilitarize and dispose of all conventional ammunition, including non-SMCA-managed items, for which capability, technology, and facilities exist to complete demilitarization and disposal. The SMCA shall accept these items into the demilitarization stockpile with appropriate technical data, and fund a joint-Service research and development program for developing the capability where capability, technology, and facilities do not exist.

b. Acquire equipment and facilities required for demilitarization and disposal of conventional ammunition at SMCA facilities on a non-reimbursable basis.

c. Develop a comprehensive demilitarization and disposal plan annually.

d. Serve as the DoD Designated Disposition Authority (DDA) for managing Waste Military Munitions (WMM) according to 40 COM Part 266, Subpart 266, Subpart M. Coordinate WMM determinations and actions with Military Service-level DDAs.

CHAPTER 8.2

Disposal Process

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CHAPTER 8.2

Disposal Process

8.2.1 General. This section provides an overview of the demilitarization/disposal authorization process. More detailed information can be found in NAVSUP P-724.

8.2.2 Demilitarization Authorization. There are two methods used for authorizing munitions/munition items for demilitarization: Inventory Manager (IM) Demilitarization Release Orders (DROs) and Local Demilitarization Authorization.

8.2.2.1 Inventory managers DROs. DROs are provided to activities holding demilitarization and disposal candidates. The DRO directs movement of these assets to either the servicing DRMO, and Army activity, or to another Navy activity.

a. Naval Operational Logistics Support Center (NOLSC-AMMO) Ordnance Information System-Wholesale (OIS-W) Generated DROs.

(1) An OIS-W DRO provides the holding activity both direction and authority to move demilitarization and disposal candidates.

(2) DROs are generated as a result of the following process:

(a) For designated Major Command activities or other activities identified in NAVSUP Pub P-724, the monthly OIS-W automated "H" sweep selects "H" CC assets as demilitarization and disposal candidates and either initiates a DRO, or for select items notifies the IM that "H" condition asset is on hand.

(b) DROs may be issued following the annual Navy Stratification process, in response to a Report of Excess/Disposition Request submitted by an activity, or as directed by the acquisition program manager following a quality evaluation that declared the material unsafe or potentially unsafe. An In-Service Engineering Agent under the direction of the Acquisition Program Manager performs quality evaluation testing.

(3) There are three types of DROs. DROs for Ammunition, Explosives and other Dangerous Articles

(AEDA) including classified non-explosive ordnance material will have a Document Identifier Code (DIC) of "BGD" or "BGJ". DROs for unclassified non-explosive ordnance material will have a DIC of "A5J".

(a) Condition Codes A, B, C, D, E, F, G, H, N, P, and V are acceptable for DICs "A5J" and "BGD" DROs. DIC BGJ is not used for CC "H". DROs will not be issued for items in CCJ, K, L and M. Requests received by NOLSC IMs for disposition of items in these CCs may be returned to the originating activity for the proper physical CC assignment or may be rejected and returned by the DRMO for the proper classification.

8.2.2.2 Local Demilitarization Authorization.

a. Local authority is not authorized for AEDA or classified non-explosive ordnance material, (DEMIL codes of G or P), regardless of value. Contact the appropriate IM for disposition as listed on the Naval Operational Logistics Support Center (NOLSC-AMMO) website, <https://www.ois.disa.mil>.

b. Unclassified non-explosive Demilitarization and Disposal Candidate with a value less than \$100.00 can be processed by the holding activity using local authority.

8.2.3 Processing Disposal Release Orders (DROs). NAVSUP Pub P-724 provides guidance to process DROs. Activities holding demilitarization and disposal material shall perform the following actions upon receipt of a DRO:

a. Apply standard Notice of Ammunition Re-classification (NAR) compliance procedures. NAR messages may provide additional guidance or shipping direction.

b. Identify type of DRO. The Document Identifier Code (DIC) and Supplemental Address (SUPADD) will determine the required action.

c. Verify the DRO quantity and Condition Code (CC) matches on-hand assets. If the quantity or CC

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does not match contact the appropriate IM as listed on the NOLSC-AMMO website.

d. Use the original document number of the DRO throughout the reporting process.

e. See NAVSUP P-724 for situational formatting for DRO confirmation procedures including DRO follow-ups, cancellations and denials.

f. DD Form 1348-1A (per NAVSUP P-724).

(1) AEDA or Classified Non-Explosive Ordnance Material. Upon receipt of a DRO for AEDA or classified non-explosive ordnance material, prepare a DD Form 1348-1A and ship the material as directed by the DRO.

(2) Attach the following information to the DD Form 1348-1A as applicable:

(a) Save list identifying parts/components for reclamation (CC "P") items.

(b) Key Point list identifying "Key Points or Lethal Parts" (Demilitarization Code "C" items).

(c) Special demilitarization instructions for items with a DEMIL Code of "F".

(3) Unclassified Non-explosive Ordnance Related Material. Upon receipt of a DRO for unclassified non-explosive ordnance related material with a blank SUPADD, the holding activity shall certify that the material contains no items of a dangerous or hazardous nature and transfer to their servicing DRMO.

(4) Transportation Accounting Codes (TAC). In order to segregate and monitor transportations movements for demilitarization and disposal, cite the appropriate demilitarization Transportation Account Codes, listed in NAVSUP P-724 on all DD Form 1348-1A Disposal Turn-In Documents.

g. Use the holding activities standard shipping procedures for demilitarization and disposal material movements.

h. Demilitarization Code Challenges: The Acquisition Program Manager's engineering agent provides technical data supporting all ordnance items. This information is entered into the Federal Logistics Information System (FLIS) during the cataloging process. OIS-W and other subsystems also maintain the technical data. Demilitarization codes within FLIS and the ordnance subsystems may differ and result in a challenge by the local DRMO. NOLSC-AMMO responds to DEMIL code challenges for the Navy, and following a review by the engineering agent, submits changes to FLIS as appropriate.

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CHAPTER 9.1

Foreign Military Sales (FMS)

9.1.1 Legislative Authority. Authorizations and appropriations for Foreign Military Sales are provided primarily by the Foreign Assistance Act (FAA) of 1961, as amended, and the annual appropriation acts for Foreign Operations, Export Financing and Related Programs.

9.1.2 Responsibilities. Chapter 2 of DoD 5105.38-M, Security Assistance Management Manual, describes responsibilities and relationships of United States Government departments and agencies for security assistance programs. Following are security assistance responsibilities within the Department of the Navy (DoN).

9.1.2.1 Navy International Programs Office (Navy IPO). The principle DoN organization for handling security assistance matters is Navy IPO. Under the direction of Assistant Secretary of the Navy for Research, Development and Acquisition (ASN RD&A), Navy IPO formulates and implements the Department of the Navy (DoN) security assistance policy and interfaces with other government agencies. Navy IPO establishes DoN procedures for LOA development, execution and closure and carries out sales (FMS) requirements. The Director, Navy IPO is also the Deputy Assistant Secretary of the Navy for International Programs (DASN/IP) and serves as an advisor to the CNO, assigned an OPNAV Code, N5T.

9.1.2.2 Naval Ordnance Logistics Support Center (NOLSC-AMMO). NOLSC-AMMO is responsible for preparing impact statements for all FMS cases containing conventional ordnance for the cognizant Program Manager.

9.1.2.3 Program Manager (PM)/Case Manager (CM). The ammunition PM/CM is responsible for planning, executing and closing all ordnance FMS cases, as assigned by Naval Sea Systems Command (NAVSEA), Warfare Systems Engineering Directorate (SEA 06), Office of International Programs (SEA-63). The PM/CM initiates this process by conducting a technical screening and obtaining an impact statement from NOLSC-AMMO. The CNO (OPNAV 411) has final decision authority on all sales originating from Navy stocks.

9.1.2.4 Naval Inventory Control Point (NAVICP). The NAVICP maintains logistic and financial data in the Management Information System for International Logistics (MISIL); reports logistics and financial data to the Defense Finance and Accounting Service (DFAS) and FMS customers, and assists with closure of all FMS cases.

9.1.2.5 SEA-63 performs Case Administering Office (CAO) functions established by OPNAVINST 4900.149 for cases assigned to NAVSEASYSOM. They also are available to assist Case Managers in planning, executing and closing their FMS cases; maintaining current financial data in the Standard Accounting and Reporting System (STARS) and administering the FMS Administrative budget for NAVSEA.

9.1.3 Organizational Relationships. Figure 9-1-1 identifies the organizations involved in the SA program for non-nuclear ordnance and their relationship to each other.

9.1.4 FMS Case Development Process. Processing an FMS case takes coordination between many different DON activities. The following steps are a representation of a normal progression of an FMS case.

a. Upon receipt, the Letter of Request (LOR) is validated by Navy IPO to ensure the potential customer is an eligible FMS recipient, that the item requested may be sold, and that proper submission channels were followed. Navy IPO assigns the case designator, establishes the case record in the Defense Security Assistance Management System (DSAMS) and forwards the LOR and a DSAMS task to SEA-63.

b. SEA-63 receives the LOR and the DSAMS task and prepares a request for technical screening that is sent to the PM.

c. The PM receives the request for technical screening. In response the PM conducts the technical screening by research, developing response documents related to the case and tracks the progress of the request for technical screening. If the foreign request does not conform to all DoN requirements for

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the foreign customer in question, the LOR is sent back to the originator through channels. Additional information may be required from the customer and/or the request may be rejected for various reasons. In all cases, comments are posted in DSAMS in order to maintain an historical record.

d. The PM reviews the request with regard to asset posture and determines the recommended method of resolution for completion of the case. If the asset is determined to be in sufficient quantity to support stock issue on a Replacement-in-Kind (RIK) basis (based on the NOLSC-AMMO Impact Statement), the PM will obtain asset costs and respond accordingly. If the asset requires procurement, the PM will obtain engineering costs from the appropriate Engineering Agent (EA) and responds appropriately.

e. The EA prepares an engineering estimate in accordance with the recommended guidance provided by the PM. The engineering estimate is included in the PM's response to Navy IPO.

f. The EA obtains hardware pricing from Conventional Ammunition Integrated Management System Open Systems Environment (CAIMS OSE) and Program Plan Requirement documents.

g. The PM provides the draft LOA data to SEA-63 who reviews it to ensure compliance with all FMS policies and procedures, including proper NAVSEA disclosure review.

h. NAVSEA then forwards the draft LOA data to Navy IPO in DSAMS. Navy IPO coordinates the package with all other appropriate U.S. government offices and forwards the LOA to the customer country.

i. If the requesting country or international organization accepts the terms of the LOA, they sign it and return it to the Navy IPO for implementation to NAVSEA and the CM. If the requesting country or international organization does not accept the LOA, further negotiations are conducted or the LOA is cancelled.

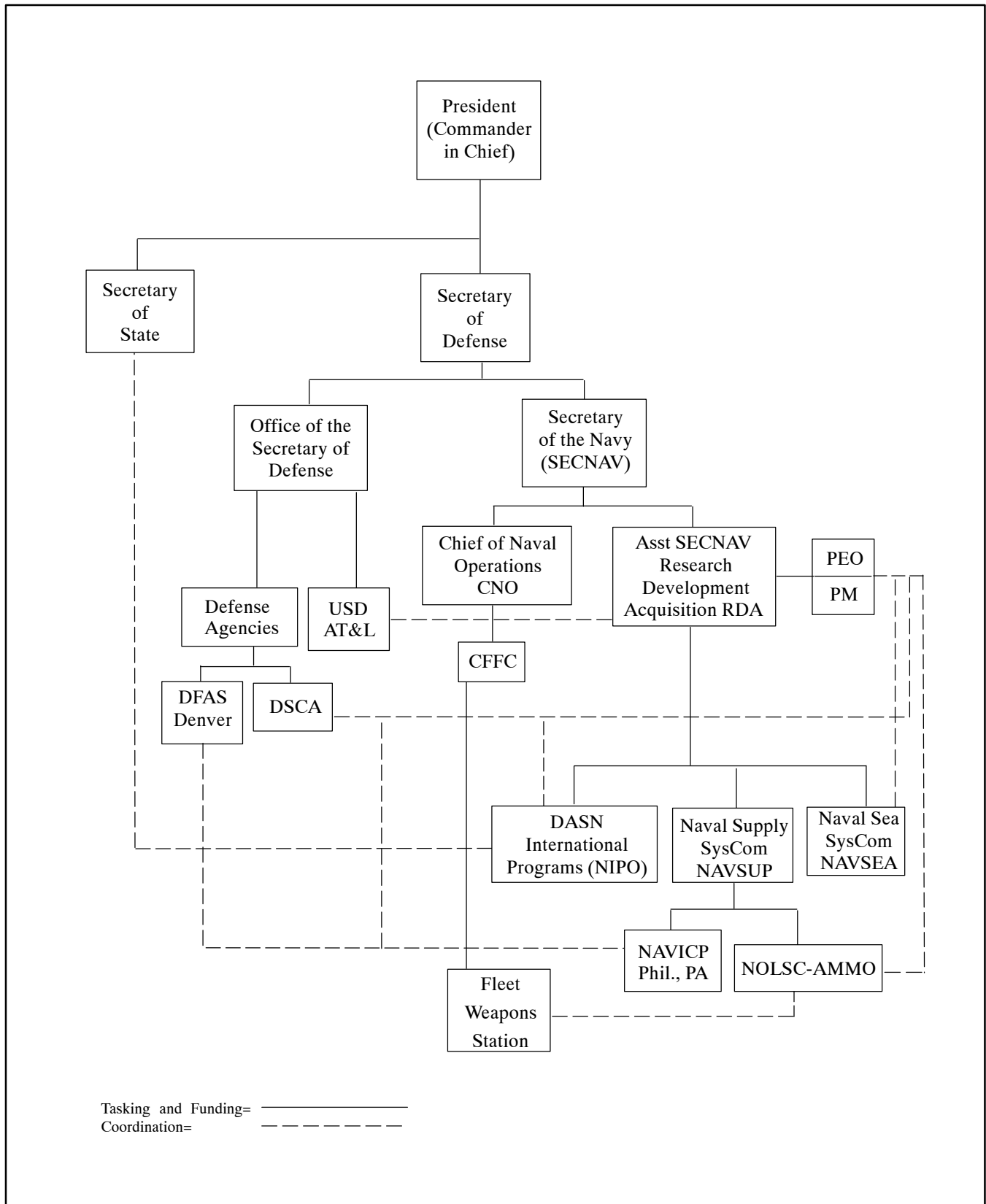


Figure 9-1-1. Security Assistance Program Organizational Relationships

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CHAPTER 9.2

Standardization Agreements (STANAGs)

9.2.1 Definition. A North Atlantic Treaty Organization (NATO) Standardization Agreement (STANAG) is defined as the record of an agreement among several or all of the member nations of NATO to adopt like or similar military equipment, ordnance, supplies and stores; and operational, logistics, and administrative procedures. National acceptance of a NATO allied publication issued by the NATO Standardization Agency (NSA) may be recorded as a STANAG.

9.2.2 Standardization Areas. As described in the STANAG governing instruction AAP-3, the three main areas of standardization are interdependent. However, it frequently occurs that a single working group under the direction of one Tasking Authority (TA) is the appropriate body to effect standardization of a specific matter which involves two or all three main areas. It is the responsibility of the working group TA to ensure that when it undertakes work outside its stated area, the concurrence of all other relevant TAs is obtained and that thereafter they are kept informed of all progress. There are three main areas of standardization:

9.2.2.1 Operational. Operational standardization (doctrine, tactics, and procedures) is under the tasking authority of the Military Committee (MC).

9.2.2.2 Material. Material standardization is under the tasking authority of the Conference of National Armaments Directors (CNAD).

9.2.2.3 Administrative. Administrative standardization is normally placed under an appropriate tasking authority on a case by case basis.

9.2.3 Application of Civilian Standards. As a general rule, NATO should apply the following outline strategy with respect to the future application of civilian standards:

a. NATO STANAGs shall only be developed when the respective requirements are not covered by recognized civilian standards.

b. The following general order of precedence shall be applied when selecting civilian standards for purposes of NATO standardization:

(1) International Organization for Standardization (ISO).

(2) International Electrotechnical Commission (IEC).

(3) International Telecommunication Union (ITU).

(4) European Standards, such as Euronorm and European Telecommunication Standards (ETS).

(5) Regional Standards.

(6) National Standards.

c. International data banks and the international system for the classification of standards, ICS, shall be used to identify relevant civilian standards which must be studied for suitability for purposes of NATO standardization, taking into account regional variances.

d. Each STANAG shall be supplemented by a statement identifying the civilian standard(s) forming the basis of the agreement, or confirming that no suitable civilian standard(s) exists. Civilian standards may be adopted for purposes of NATO standardization by referencing the applicable civilian standardization organization, number, title and date of issue, under a STANAG cover sheet. Additional military augmentations or limitations may be specified: in the standard being adopted under the covering STANAG, in the standard(s) supplement, or in the covering STANAG itself.

9.2.4 Languages. All STANAGs are promulgated in both NATO official languages, English and French. For STANAGs that contain large technical annexes and appendices with very little text, the translation of those annexes and appendices will be subject to mutual agreement between the TA and the nations concerned. Their translation may be accomplished by the nations or NATO, as determined by the TAs.

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9.2.5 Measurement. The International System of Units as defined by the ISO (ISO 1000) is to be the primary system used in NATO standardization documents. If another system is used, it will be stated.

9.2.6 Interservice Ammunition Working Group (I-AMMOWG). I-AMMOWG establishes doctrine and procedures that allows ammunition interchange to operate smoothly among NATO nations. I-AMMOWG thus produces the “NATO Land Forces Ammunition Interchangeability Catalogue (AOP-6).” This catalog forms a significant portion of the NATO Ammunition Standardization Database, published by the NATO Maintenance and Supply Agency (NAMSA), that is currently being used by nations to facilitate the sharing of ammunition interchangeability information. I-AMMOWG also manages the color coding of NATO land forces ammunition. It assumed the work formerly done by the Naval Ammunition Interoperability Working Group (NAIWG).

9.2.6.1 Navy Representation. The U.S. Navy representation on the NAIWPG consists of the following commands and offices:

- a. Navy International Programs Office.
- b. NAVSEA Conventional Ammunition Program Office (PM4).
- c. Naval Ordnance Safety and Security Activity (NOSSA).
- d. Other ordnance PEOs/PMs participate on ordnance issues affecting their program(s).

9.2.6.2 Ordnance STANAGs. There are several STANAGs covering non-nuclear ordnance. Each STANAG has an assigned NATO Custodian and a U.S. Cog Engineer. Figure 9-2-1 contains the listing of the current and presently proposed STANAGS under the cognizance of the NAIWG, or under the cognizance of another Working Party with NAIWG interest.

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Number	Document Title	Custodian	U.S. Cog
1214	20 MM Oerlikon Gun Ammunition Interchangeable Within NATO Naval Forces	PO	NAVSEA PM4
1233	Procedures For RADHAZ Control In Ports and The Territorial Sea	FR	NOSSA
1239	20 MM RH 202 Gun Ammunition Interchangeable Within NATO Naval Forces	GE	NAVSEA PM4
1245	40 MM/L60 Gun Ammunition Interchangeable Within NATO Naval Forces	UK	NAVSEA PM4
1250	100 MM Gun Ammunition Interchangeable Within NATO Naval Forces	FR	NAVSEA PM4
1283	76 MM/62 Gun Ammunition Interchangeable Within NATO Naval Forces	US	NAVSEA PM4
1285	40 MM/L70 Gun Ammunition Interchangeable Within NATO Naval Forces	GE	NAVSEA PM4
1287	5 IN/54 Gun Ammunition Interchangeable Within NATO Naval Forces	US	NAVSEA PM4
1340	MK 48 MOD 4 Torpedo Interchangeable Within NATO Naval Forces	US	PEO (SUB)
1341	Harpoon Missile Interchangeable Within NATO Naval Forces	US	PMA 258D
1342	MK 46 Torpedo Interchangeable Within NATO Naval Forces	US	PEO (SUB)
1343	ASROC System Interchangeable Within NATO Naval Forces	US	PMO 406
1345	130 MM (5.125 IN) Decoy Ammunition Interchangeable Within NATO Naval Forces	US	NAVSEA PM4
1346	L-5 MOD 4 Torpedo Interchangeable Within NATO Naval Forces	FR	PEO (SUB)
1348	375 ASW Rocket Interchangeable Within NATO Naval Forces	FR	PMO 406
1349	STANDARD Missile Interchangeable Within NATO Naval Forces	GE	PMS 422-23
1350	100 MM Decoy System Ammunition Interchangeable Within NATO Naval Forces	UK	NAVSEA PM4
1359	20 MM F2 Gun Ammunition Interchangeable Within NATO Naval Forces	FR	NAVSEA PM4
1360	30 MM GOALKEEPER Gun Ammunition Interchangeable Within NATO Naval Forces	NL	NAVSEA PM4
1361	57 MM L/70 Bofors Gun Ammunition Interchangeable Within NATO Naval Forces	NO	NAVSEA PM4
1362	PENGUIN Missile Interchangeable Within NATO Naval Forces	NO	PEO (TSC)
1392	Submarine Pyrotechnics Interchangeable Within NATO Naval Forces	NL	NAVSEA PM4
1393	57 MM Decoy (Barricade) Ammunition Interchangeable Within NATO Naval Forces	UK	NAVSEA PM4
1394	20 MM CIWS PHALANX Gun Ammo Interchangeable Within NATO Naval Forces	US	NAVSEA PM4
1402	Guidelines for the NTA Assessment of Naval Gun Ammunition Interchangeability	UK	NAVSEA PM4
1405	AOP-27, Guidelines on the Interchangeability of Ammunition Within NATO Naval Forces	NL	NAVSEA PM4
1417	STING RAY Torpedo Interchangeable Within NATO Naval Forces	UK	PEO (SUB)
1436	SEA SKUA Missile Interchangeable Within NATO Naval Forces	UK	Not in U.S. Arsenal
1442	(Proposed STANAG) Rolling Airframe Missile (RAM)	US	PMS 472

Figure 9-2-1. Ordnance STANAGs

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CHAPTER 10.1

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CHAPTER 10.1

Systems Acquisition Training

10.1.1 Training Requirements for Acquisition Managers.

10.1.1.1 General. Acquisition management is governed by laws and regulations. It has been determined that to reasonably hold one accountable for complying with these laws and regulations, there needed to be formal training provided specifically targeted to each function within acquisition management. This requirement led to the creation of the Defense Acquisition University (DAU) by DoDD 5000.57. The DAU is located at Fort Belvoir, VA. The mission of the DAU is to educate and train professionals for effective service in the defense acquisition system; to achieve more efficient and effective use of available acquisition resources by coordinating DoD acquisition education and training programs and tailoring them to support the careers of personnel in acquisition positions; and to develop education, training, personnel, and publication capabilities in the area of acquisition.

10.1.2 Defense Acquisition University Mission Objectives. As explained in DoDD 5000.52, the primary objective of the Defense Acquisition Technology & Logistics (AT&L) Workforce Education, Training, and Career Development Program is to create a professional, agile, and motivated workforce that consistently makes smart business decisions, acts in an ethical manner, and delivers timely and affordable capabilities to the warfighter. The DAU is part of the career development programs. It has five regions for Level I, II, and III certification training. They are for West region at San Diego, CA, the Midwest region at Kettering, OH, the South region at Huntsville, AL, the mid-Atlantic region at California, MD and the capital & Northeast region at Ft. Belvoir, VA. The Defense Systems Management College (DSMC), at Ft. Belvoir, VA is also part of the DAU providing both Program Manager and Executive Program Managers (PM) courses. Completion of these courses meets the statutory requirement for Program Executive Officer/ACAT I/II PM & Deputy PM positions (10 USC 1735).

10.1.3 Training Requirements Identified During Acquisition.

10.1.3.1 Navy Training Plan (NTP). The NTP is a product of the acquisition process. It is an official statement of billets, personnel, and training resource requirements needed to support the introduction and life cycle operational use of an ordnance item or weapons system. The NTP assigns responsibilities for planning, programming, and implementing actions necessary to accomplish the following:

- a. Ensure coordination of billets, personnel, military construction, training support, and training planning concurrently with the ordnance item or weapons system development and production.

- b. Provide efficient and adequate training programs phased with initial ordnance item or weapons system introduction and subsequent modifications.

10.1.3.2 Training Aids. Another important training issue during the acquisition phase is identifying training aid requirements and including them in the acquisition plan. Training aids are covered in the NTP. However, occasionally an ordnance item or weapons system will be introduced into the system, or an existing one modified, which does not result in the development or update of an NTP. In these cases the need for new training aids must still be considered.

10.1.3.3 Training Aid Users. While developing an acquisition plan for a new ordnance item or weapons system, the following schools at a minimum need to be consulted to determine if any training aid requirements exist to provide proper training to the Fleet on the new item:

- a. Gunners Mate (GM) School,
Service Schools Command
(SERVSCOLCOM)
Great lakes, IL 60088-5400
- b. Fleet Combat Training Center Atlantic
(FCTCL), Dam Neck
1912 Regulus Ave.
Virginia Beach, Va 23461-2098

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- c. Navy School, Explosive Ordnance Disposal
(NAVSCOLEOD)
Eglin AFB, FL 32542-6009

- d. Defense Ammunition Center
Attn: SJMAC-AS
1 C Tree Road
McAlester, OK 74501-9054

CHAPTER 10.2

Ordnance Specialty Training

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CHAPTER 10.2

Ordnance Specialty Training

10.2.1 Training Requirements.

10.2.1.1 General. Training requirements for individuals and groups involved directly or indirectly in ordnance or explosives handling can be found in many different instructions. Most process governing instructions contain a section which identifies required training. NAVSEA OP 5, Volume 1, covers a broad spectrum of training requirements and training sources. Each TYCOM has ordnance training courses listed in their training requirements manual. There are many technical training courses available to cover training requirements in the following:

- a. Ordnance management.
- b. Explosives safety.
- c. Ordnance transportation.
- d. Ordnance handling.
- e. Ordnance automated management systems.

10.2.2 Training Sources. For many, identifying all of the available training is as difficult as determining all of the training requirements. No one document exists that identifies all of the available ordnance training. One good source is the Catalog of Navy Training Courses (CANTRAC). CANTRAC is accessible thru the Corporate Enterprise & Training Activity Resource System (CETARS) at: <https://cetarsweb.cnet.navy.mil>. In this era of joint training, there are many formal ordnance training courses offered by the Army that are available to the Navy, and informal ordnance training courses within the Navy, that do not have an assigned Navy Course Identification Number. The Catalog of Nonresident Training Courses, NAVEDTRA 12061, provides information on available correspondence courses.

10.2.3 Schoolhouses. The following schoolhouses provide the majority of the formal training or training materials for informal training:

a. Defense Ammunition Center (DAC) McAlester, OK. As directed in DoD 5160.65-M, DAC provides training in ordnance management, explosives safety, and ordnance transportation to all DoD military and civilian personnel. Navy related training is available thru Computer Based Training (CBT) CD-ROM media and conducted both at DAC and on site at the requesting activity.

b. Fleet Combat Training Center (FCTCL), Dam Neck, VA. FCTCL provides training in ordnance management and ordnance handling for military personnel on the East coast.

c. Fleet Training Center (FTC), San Diego, CA. FTC provides training in ordnance management and ordnance handling for military personnel on the West coast.

d. NSWCDIV Crane. Crane provides on site training on ROLMS as requested. Further information can be obtained by calling the ROLMS help desk at NSWCDIV Crane, IN.

e. NSWCDIV Indian Head. Indian Head provides standardized training materials for informal ordnance handling, and ordnance transportation courses. Training materials or further information can be obtained by calling NSWCDIV Indian Head, MD.

f. Surface Warfare Officer's School (SWOS), Newport RI. SWOS provides ordnance management training for Surface Warfare Officers. Further information can be obtained by accessing the SWOS web site at: <http://www.swos.navy.mil/>.

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CHAPTER 10.3

Ordnance Training/Qualification/Certification

10.3.1 General. In accordance with the policy set forth in OPNAVINST 8020.14/MCO P8020.11, activities shall conduct tasks involving ordnance in the safest manner possible. To minimize the probability of a mishap, the potential for personnel errors must be controlled through training (qualification) coupled with a management process designed to prevent inadequately trained personnel from performing Ammunition & Explosive (A&E) jobs/tasks. Therefore the CNO will implement the Qualification/Certification (QUAL/CERT) Program as part of an overall Explosives Safety Program designed to maximize explosives safety while meeting mission requirements. The results of ordnance mishap investigations have often identified the presence of an individual who was not properly qualified nor certified to perform the assigned task. This fact figured prominently in the assessment of why the incident occurred and how a qualified and certified individual's subsequent actions could have mitigated the degree of damage the incident caused. To fully understand the QUAL/CERT program one must first have an understanding of the two terms.

a. **Qualification.** A documented list of requirements an individual must satisfy prior to being certified. Examples are; testing, formal classes, licenses, documented On-the-Job Training (OJT), experience, demonstrated task proficiency, and physical (medical) examination.

b. **Certification.** A formal documented declaration by the Commanding Officer/Officer-in-Charge, or their designated representative, that an individual, by virtue of management review, has met all of the qualification requirements established to perform a task.

10.3.1.1 Responsibilities. The Commander Naval Sea Systems Command shall issue a QUAL/CERT instruction that complies with the policy found in OPNAVINST 8020.14/MCO P8020.11. Commander, Atlantic Fleet/Commander, Pacific Fleet shall also issue a QUAL/CERT instruction that complies with OPNAVINST 8020.14/MCO P8020.11. Other major claimants shall comply with either the NAVSEA or Commander, PACFLT/LANTFLT QUAL/CERT instructions. It is important to understand that although there are many individuals and commands that have responsibilities

for QUAL/CERT programs (i.e., training), each Commanding Officer/Officer-in-Charge is individually responsible for the QUAL/CERT program at their command and all personnel positions which should fall under their program.

10.3.1.2 Governing Instructions. NAVSEA Instruction 8020.09B, Ammunition and Explosives Personnel Qualification and Certification Program, implements the explosives handling personnel QUAL/CERT programs.

10.3.2 Personnel Training and Qualification. The training portion(s) of the qualification requirements can be met by a mixture of formal classroom training, computer-based training, correspondence courses, Non-nuclear Explosive Ordnance Shipboard Handling and Stowage Personnel Qualification Standards (PQS), and OJT. Some formal training class requirements are established by public law as identified in the appropriate process governing instruction(s). Except as authorized by OPNAVINST 8020.14/MCO P8020.11, as applicable, only inert devices shall be used for QUAL/CERT training and examination.

10.3.3 Certification.

10.3.3.1 Certification Levels. Although there are some differences between implementing instructions, there are two basic certification levels as follows:

- a. Team Member (TM).
- b. Team Leader (TL).

10.3.3.2 Certification Process. The Commanding Officer/Officer-in-Charge establishes a QUAL/CERT Board which is responsible for defining all parameters of the program, using the requirements established in the appropriate implementing instruction. If the command is too small to properly implement the program, its personnel can be covered in the parent command's QUAL/CERT program. The essential QUAL/CERT program elements are designed to ensure the following:

- a. Specify jobs/tasks that require QUAL/CERT.

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b. Establish minimum standards of personnel competency in terms of training, proficiency, and level of supervision necessary for successful performance of the job/task. Emphasis for qualification should not be focused solely on completion of required training, but should shift toward the final demonstrated proficiency level for the job/task being performed.

c. Establish a method of documenting personnel qualifications and certifications necessary to perform the job task.

10.3.3.3 The certification process commences once an individual is identified for assignment to a position/task covered by the command QUAL/CERT program. The individual undergoes the training and other qualification requirements. Upon completion of all qualification requirements, the individual's supervisor submits all required documentation to the QUAL/CERT Board Chairperson indicating the individual meets the required qualifications. The QUAL/CERT Board Members evaluate personnel for certification and submit Proficiency Demonstrations (PD) to the immediate supervisor. The PD is the safe and effective performance by an individual seeking certification/re-certification of a task. PDs are:

a. Prohibited from using A&E for first time TM certification.

b. Required at a minimum for first time TM and TL certifications.

c. Required for annual re-certification.

10.3.3.4 Suspension or Revocation. Immediate supervisors shall immediately remove personnel from the job site if they are working in an unsafe manner or creating hazards for themselves or co-workers. Notify the QUAL/CERT Board Chairperson of disciplinary actions, poor performance, obvious deterioration in physical ability or attitude problems that could adversely affect an individual's ability to work safely and efficiently. Suspension or revocation action shall be taken by the QUAL/CERT board, as appropriate, following disciplinary action, an explosives mishap, or absence from ordnance task(s) for a specified period of time. As part of the suspension or revocation action, the board should identify if re-certification is possible at a future date and what actions would be required of the individual prior to re-certification.

10.3.3.5 QUAL/CERT Standardization. The implementing instructions have been written to assist commands in utilizing qualified personnel from other commands. This emphasizes the importance of the documentation being maintained so that it can be effectively reviewed in a short period of time by the requesting command to provide certification for the needed personnel providing the assistance.

10.3.4 Training Program Evaluation and Improvement. To assure the continued currency, relevance, technical accuracy, and adequacy of ordnance training courses, various means of measuring their effectiveness have been implemented. The Chief of Naval Education and Training (CNET) maintains a training appraisal program based on external feedback from all Navy activities to improve the quality of school graduates and, thus, enhance Fleet readiness. Other military service schools which provide training to Navy and Marine Corps military and civilian personnel have similar programs. The other major means of program evaluation is a training audit program. Audit teams made up of personnel with the appropriate technical and training expertise conduct periodic audits of individual courses looking at both subject matter content and method of presentation. The SYSCOMs, or their designated representatives, are the coordinators for audits of ordnance courses which are system or process specific under their cognizance. It is important that commands with ordnance QUAL/CERT programs be actively involved in the feedback and audit programs to ensure a comprehensive training program that is responsive to the needs of the Fleet.

10.3.5 QUAL/CERT Program Inspection.

10.3.5.1 Per NAVSEAINST 8020.14B, the Naval Ordnance Safety and Security Activity (NOSSA) is designated as the technical authority for explosives safety and serves as the office of primary responsibility for all matters affecting the Explosive Safety Inspection (ESI) Program. ESSOLANT/ESSOPAC are responsible for conducting ESIs and providing technical assistance, when requested, to all Navy and Marine Corps shore activities.

10.3.5.2 Shore activities will be subject to an ESI once every two years.

10.3.5.3 Self Audit: As part of the ESI, shore activities are required to establish a formal written Explosives Safety Self Audit (ESSA) Plan which may incorporate Appendix A to NAVSEAINST 8020.14B. An audit of the activities QUAL/CERT Program is

part of that ESSA. The ESSA Plan is subject to ESI review.

10.3.5.4 The QUAL/CERT Program is an area under the safety program. Each element of the QUAL/CERT Program will be inspected and evaluated during an ESI. The elements of the QUAL/CERT Program are:

- a. Training.
- b. Records.
- c. Ordnance Handlers Qualification.
- d. Certification Process.

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CHAPTER 11.1

Introduction

11.1.1 General. This chapter addresses maintenance program management for surface launched missiles. During a weapon system's deployment life cycle phase, maintenance program management is a critical function due to the impact of maintenance requirements on the effective use of personnel, material, facilities, and fiscal resources. Maintenance program management function includes maintenance planning, coordinating, budgeting, and evaluation program processes. Surface launched missiles are under the cognizance of the Naval Sea Systems Command (COMNAVSEASYS COM). Inventory management responsibilities are assigned to the Naval Operational Logistics Support Center (NOLSC), Mechanicsburg, PA. Throughout this section the term "surface launched missile" will include those designated shipboard missiles capable of being launched from Naval surface combatants as indicated in Figure 11-1-1.

11.1.2 Responsibilities. Volume I, Chapter 2.2 defines maintenance function and responsibilities that apply to surface launched missiles. Chapters 11.2 through 11.4 describe the Organizational, Intermediate, and Depot level maintenance actions that apply to surface launched missiles.

11.1.3 Applicability. Paragraph 11.1.4 provides surface launched missile system descriptions. Figure 11-1-1 provides a missile model matrix defining employment.

11.1.4 Rolling Airframe Missile (RAM). The RIM-116 RAM is a surface launched, lightweight quick-reaction, fire and forget missile designed to destroy anti-ship missiles and asymmetric air and surface threats. Currently there are two RIM-116 configurations: Block 0 (RIM-116A) and Block 1 (RIM-116B). The Block 0 design is based on the infrared seeker of the Stinger missile, and the warhead, rocket motor, and fuse from the Sidewinder (AIM-9M) missile. The Block 0 configuration uses Radio Frequency (RF) for midcourse guidance and transitions to Infrared (IR) guidance for terminal engagement. There is no shipboard support required (i.e. no illuminators) after missile launch. While retaining Block 0 guidance modes, Block 1 incorporates the added capability of autonomous IR-all-the-way guidance, thus countering advanced anti-ship missiles that do not employ onboard radar seekers. The missile's inherent seeker design and

performance characteristics enable engagement of helicopters, aircraft and surface threats.

11.1.5 Maintenance Philosophy. The surface launched missile maintenance philosophy is based on the All-Up-Round (AUR) maintenance concept and utilizes the three tiered maintenance structure described in Volume I, Chapter 1.3 of this instruction. Maintenance processes are designed to achieve the specific surface launched missile system's assets readiness objective as established by the Chief of Naval Operations (CNO). The objective of the processes is to achieve and maintain established asset readiness objective with optimal use of manpower, material, and fiscal resources.

11.1.6 Inventory Administration. NAVSUP P-724 provides administrative procedures for inventory reporting.

11.1.7 Asset Readiness Objective. The CNO establishes an asset readiness objective for each surface launched missile system based on the Non-Nuclear Ordnance Requirements (NNOR) model, developed in accordance with OPNAVINST 8011.9A. The asset readiness objective, Fleet operational requirements and ship fill requirements are the goal to be achieved and maintained by the Naval Ordnance Maintenance Management Program. Asset readiness is expressed as the ratio (in percentage) of serviceable assets in the inventory. The CNO monitors asset readiness, and mission readiness as described in Volume I, paragraphs 2.1.4 and 2.1.5 for each individual system.

11.1.8 All-Up-Round (AUR) Surface Launched Missile. An AUR surface launched missile is provided to the Fleet as a complete assembly in its end item configuration.

11.1.9 All-Up-Round (AUR) Maintenance Concept. The AUR missile maintenance concept is a maintenance methodology designed to accommodate the processing of AUR surface launched missiles throughout the logistics life cycle. The objectives of the AUR maintenance concept are:

- a. To issue fully assembled missiles to the Fleet which require minimal checkout.

	Surface-to-Air RIM	Surface-to-Air RTM
Rolling Airframe Missile RIM-116A/B	MK 44 MOD 0 MK44 MOD 1 MK44 MOD 2 MK44 MOD 3	MK47 MOD 1 MK47 MOD 6 MK47 MOD 7

Figure 11-1-1. Missile Model Matrix

b. To affect improvements in surface launched missile handling and storage throughout the logistics sequence.

c. To affect major decreases in weapon loading and downloading operational times.

11.1.10 All-Up-Round (AUR) Test Concept. The AUR missile test concept is a maintenance methodology designed to assess specific operational parameters of the AUR missiles as the final maintenance action, performed in the configuration, which will be forwarded to the user. The AUR test is intended to verify compliance with test specification parameters and provide an acceptable degree of assurance that only weapons with high probability of success are issued to the operating forces.

11.1.11 Deep Stowage Concept. Deep stowage is a means of protecting the AUR missile. The objective of deep stowage is to maintain assets in their highest state of readiness until needed to support operational requirements. Deep stowage describes assets when they are stored in a protected environment. Assets stored under such conditions normally remain in their shipping containers with weapon station seals intact. Deep storage assets are protected from degradation cause by day-to-day exposure to the environment, thereby providing the highest confidence level that the AUR will accomplish the mission. In order to meet the highest confidence level, a missile must meet the following criteria:

a. Deep stowed in an undamaged container with one or more traceable seals intact.

b. No restrictions Notice of Ammunition Reclassification (NAR) on use of missiles or components.

c. Missile is within serviceable period.

d. Serial number on Code A, material condition tab/label matches the serial number on the container.

11.1.11.1 Deep Stowage (Afloat). Assets are classified as deep stowage for as long as they remain in their shipping containers and are stored in a protected environment in magazines, which are in accordance with NAVSEA OP5, Volume I, and NAVSUP P-805/807.

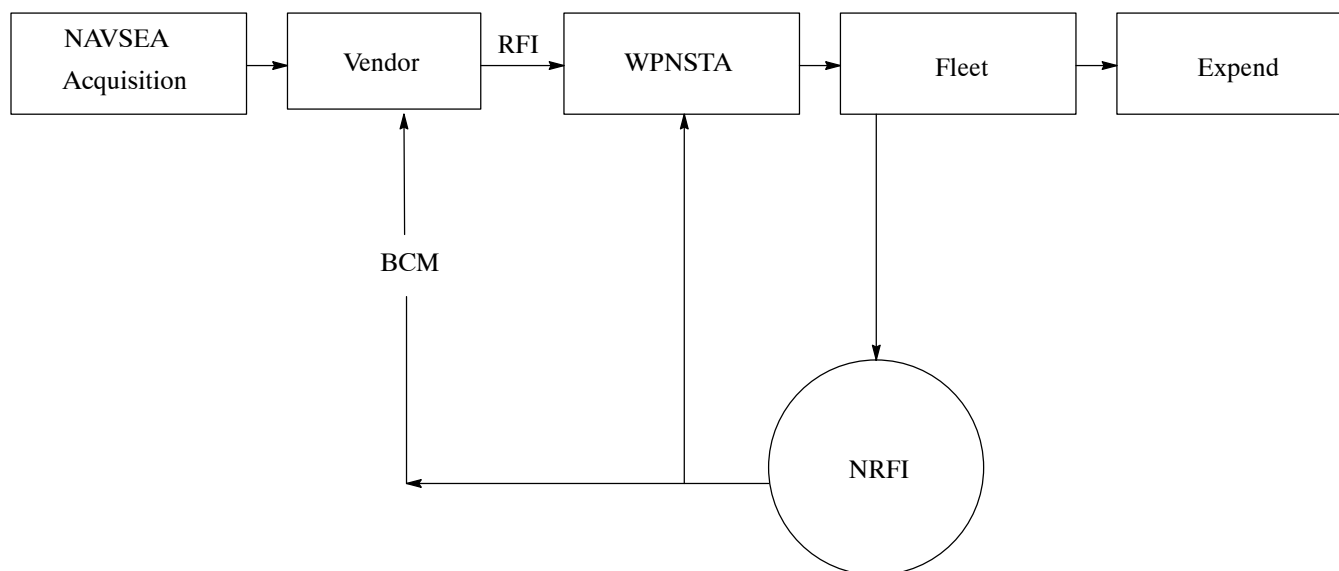
11.1.11.2 Deep Stowage (Ashore). Assets are classified as deep stowage for as long as they remain in their shipping containers and are stored in a protected environment in magazines, which are in accordance with NAVSEA OP5, Volume I, and NAVSUP P-805/807.

11.1.12 Missile Sentencing Inspection (MSI). This inspection is a visual external examination (screening) of the shipping container when a transfer of assets is accomplished. An MSI can be performed in operating buildings, segregation facilities, waterfront piers, or in any approved inspection area permitted by NAVSEA OP5, Volume I. MSI procedures have been developed for each individual missile series and are contained in NAVSUP P-805/807.

11.1.13 Missile Reissue Inspection (MRI). The Missile Reissue Inspection (MRI) is designed to take maximum advantage of surface launched missile Re-certification Due Dates (RDD). The RDD is the date a surface launched missile or component must be returned to the Depot for testing. The RDD is established by adding Serviceable In-Service Time (SIST) to the latest test date, but may not exceed the date that an internal component's service life will expire. The SIST is that period of time a surface launched missile may remain in operational use and/or storage before its internal electronic or mechanical components require a test or maintenance action to validate suitability for operational use. The SIST clock starts with the Date of the Last Test (DOLT) performed by an authorized activity. Service life is the period of time a missile explosive component may remain in operational use and/or storage. The service life starts with the date of manufacture. Missiles failing the MRI are returned for required repair actions before reissue.

11.1.14 All-Up-Round (AUR) Pipeline. Figure 11-1-2 is a simplified block diagram that depicts the flow of AUR missile from acquisition through final expenditure. A brief discussion of the pipeline follows:

11.1.14.1 Upon COMNAVSEASYS COM acquisition of the AUR surface launched missiles, they are shipped directly from the vendor to a storage point where they are entered into the Navy supply system, tracked through the Ordnance Information System (OIS) and issued to the Fleet.

**NOTES:**

AUR - All-Up-Round
BCM - Beyond Capable Maintenance
WPNSTA - Weapons Station
NRFI - Not Ready-for-Issue
RFI - Ready-for-Issue

Figure 11-1-2. All-Up-Round Pipeline

11.1.14.2 AUR missiles issued to the Fleet remain under Fleet Commander cognizance until expenditure, RDD is due, SIST expires, service life expires, or malfunction occurs. With the exception of those AUR missiles normally remains containerized and are placed in deep stowage. Through the use of MSI, missiles meeting ready for issue criteria will remain available for redeployment or shipped to storage awaiting issue.

11.1.14.3 When a Fleet-issued AUR missile becomes non ready-for-issue because the RDD is expended, service life expires, or malfunction occurs, it is returned to the appropriate maintenance facility for repair or re-certification. Missiles that are Organizational or Depot level maintenance (O or D) are shipped directly to the respective depot. All missile transactions and status changes are reported and tracked through the OIS system.

11.1.14.4 AUR missiles returned to a maintenance facility are inspected, tested, and repaired in accordance with the applicable approved procedures. Repaired and re-certified AUR missiles are again ready for Fleet issue. Contractor repaired AUR missiles are shipped directly from the vendor back to a storage point where they are again ready for Fleet issue. AUR missiles and components continue to be tracked in OIS wholesale throughout the process. Any changes in their configuration or status are reported via transaction item reporting and ammunitions transaction reports.

11.1.15 Assignment of Maintenance Levels and Responsibilities. Figure 11-1-3 provides an overview of surface launched missile maintenance actions and the maintenance level to which they are normally assigned. Figure 11-1-4 assigns maintenance responsibilities for Rolling Airframe Missiles (RAM). Maintenance action, peculiar record keeping and reporting requirements are inherently included in these assignments. Selected higher-level maintenance actions may be performed at designated lower level maintenance levels when authorized.

11.1.16 Missile Logbooks. Logbooks and records are an integral part of surface launched missile maintenance. Logbooks accompany each surface launched missile and are the administrative means of providing managers with surface launched missile age, status, operational history, movement, modification, configuration, transfer, and receipt accounting data. Properly maintained logbooks document each individual surface launched missile's operational history, movement, modification and maintenance actions through-out its life-cycle.

Surface launched missile logbooks serve as the baseline document for this purpose. The Serialized Lot Item Tracking System (SLITS) subsystem of the NOLSC OIS requires MK, MOD, nomenclature, part number, serial number, national stock number, and Naval Ammunition Logistics Code (NALC) where applicable, for inventory control. Specific guidelines on the proper logging procedures are included in the surface launched missile logbook. Missile logbook entries, or data for subsequent entry into the logbooks, are required at each level of maintenance see Figure 11-1-5 for a sample RAM logbook. Missile logbook entries are required when:

- a. Modification of the missile has been accomplished.
- b. Technical Directives (TDs) have been incorporated.
- c. Maintenance has been performed.
- d. An age-limited component has been replaced.
- e. Extension of the AUR RDD. Many times the logbook cannot be readily accessed when the AUR RDD on the container is updated. Therefore, the RDD marked on the container takes precedence over the logbook. It is not necessary to un-palletize a unit pack to mark the new RDD on all sides of the container when a RDD is changed, extended or re-established. The latest RDD marking on a container will be used provided that it matches the markings on the material condition tag/label. The logbook should be changed to reflect the more current RDD on the container at the first available opportunity that does not create additional workload to remove logbook.

11.1.16.1 The Naval Surface Warfare Center, Corona has been designated as the repository for all surface launched missile logbook information. Permanent files are periodically updated by maintenance data system input and are kept on each missile. Upon expenditure of the surface launched missile, the logbook is sent to Naval Surface Warfare Center, Corona in accordance with logbook instructions. Activities that receive incomplete or missing surface missile logbooks and records should contact the Naval Surface Warfare Center, Corona for current copy of the logbook. Missing missile logbooks can be obtained by downloading them directly from a website by personnel with approved access for their type/model/series missile.

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Organizational	Intermediate	Depot
<p>Inspect container.</p> <p>Service desiccant.</p> <p>Comply with NARs and TDs.</p> <p>Load and download missile from launcher.</p>	<p>Inspect missile.</p> <p>Inspect container.</p> <p>Service desiccant.</p> <p>Comply with NARs and TDs.</p> <p>Minor maintenance/repairs.</p> <p>Clean missile and external parts as required. Perform paint touch-up and corrosion control.</p> <p>Repackage missile container.</p> <p>Container repair.</p>	<p>Inspect All-Up-Round.</p> <p>Inspect container.</p> <p>Service desiccants.</p> <p>Comply with NARs and TDs.</p> <p>Minor maintenance/repairs.</p> <p>Clean missile and external parts as required. Perform paint touch-up and corrosion control.</p> <p>Repackage missile container.</p> <p>Container repair.</p> <p>Remove and replace section; replace internal and external component only.</p> <p>Inspect, test, replace rocket motor.</p> <p>Inspect, repair, modify warhead, safe and arm device, and electronic firing switch.</p> <p>Inspect, test, repair, rework, modify, and replace fuze and target detection device.</p> <p>Inspect, repair, modify, and replace wings and fins.</p> <p>Inspect, test, repair, rework, modify and replace launch canister/containers.</p> <p>Inspect, test, repair, rework, and modify guidance and control section or guidance and control group to assembly, subassembly, or component level. Reassemble and perform final system test.</p> <p>All-Up-Round and section testing.</p>

Figure 11-1-3. Surface Launched Missile Maintenance Levels and Actions

Activity	Level of Responsibility
Ship	Organizational level maintenance.
Weapon Station Yorktown, PA	Intermediate level maintenance for missile. Depot level maintenance for containers.
Army Ordnance Depot Tooele, UT	Intermediate level maintenance for missile. Depot level maintenance for containers.
Weapon Station Earle (PHS&T Center)	Designated overhaul point for containers.
Naval Surface Warfare Center, Indian Head, MD	Quality Evaluation of rocket motors and warheads.
Naval Surface Warfare Center Division, Crane, NJ	Quality evaluation of batteries, AOTD and S&A.
Contractor: Raytheon	Depot level maintenance.

Figure 11-1-4. Assigned Level of Maintenance for Rolling Airframe Missiles (RAM)

LOGBOOK

FOR THE

ROLLING AIRFRAME MISSILE (RAM)
GUIDED MISSILE ROUND PACK (GMRP)

MANUFACTURER: RAYTHEON MISSILE SYSTEMS COMPANY

MK: xx

MOD: x

RAM GMRP S/N: Uxxxxx

NALC: xxxx

TELEMETRY FREQUENCY: xxxx

NSN: xxxx-xx-xxx-xxxx

RECERTIFICATION DUE DATE mm/dd/yyyy

NSWC Corona Division 8800/2 (REV 05/05)

Figure 11-1-5. RAM Logbook Sample

GENERAL INSTRUCTIONS**REMARKS**

This logbook is formatted for use by all participating Governments in the MK 31 RAM Guided Missile Weapon System. If the logbook becomes separated from its respective Guided Missile Round Pack (GMRP), or when a missile is expended, the information will be entered into the logbook and the entire logbook (original logbook) shall be sent to the address below by all countries:

COMMANDING OFFICER
ATTN: RAM PREFLIGHT ANALYSIS PROGRAM
Naval Surface Warfare Center Corona Division
Code PE 31
PO Box 5000
Corona, California 92878-5000

GERMAN AMMUNITION DATA CARD REQUIREMENTS

German ammunition data cards are provided with all German Navy logbooks by the German Government.

U.S. ORGANIZATIONAL/SHIPBOARD LEVEL GMRP INSPECTIONS

All GMRPs are required to have a receipt inspection. The Organizational/Shipboard Level GMRP receipt inspection and procedures are specified in Maintenance Requirement CARD (MRC) number R-14.

U.S. INTERMEDIATE LEVEL GMRP INSPECTIONS

All GMRPs are required to have a receipt inspection. The Intermediate Level GMRP receipt inspection and procedures are specified in NAVSUP P-805/807.

U.S. DEPOT LEVEL GMRP INSPECTIONS

All GMRPs are required to have a receipt inspection. The Depot Level GMRP receipt inspection and procedures are specified in the Raytheon, Tucson Contracts.

U.S. AND GERMAN GMRP RECERTIFICATION DUE DATE (RDD)

GMRPs with expired RDDs shall be shipped to the following applicable facilities:

U.S. NAVY ADDRESS:

Raytheon Missile System
1151 E. Hermans Road
Building 866-FACO Receiving (RAM)
Tuscan, Arizona 85706

GERMAN NAVY ADDRESS:

Depot Zetel
Fuhrenkamp
D 26340 Zetel
Germany

RAM GMRP CONFIGURATION SUMMARY (Instructions are on the back of this page)				1. DATE PREPARED	2. RAM GMRP SERIAL No. & MK / MOD	
				3. ACTIVITY UIC	4. NALC	5. NSN
6. RFI DATE	7. LAST GCG TEST DATE	8. RECERTIFICATION DUE DATE		9. CONDITION CODE	10. QA STAMP	
11. COMPONENT NAME	12. MK / MOD OR PART No. (SOFTWARE VERSION)	13. SERIAL No. (CHECK SUM)	14. LOT No.	15. MANUFACTURER	16. MANUFACTURER DATE	
Guidance Section						
Flight Software Version/Check Sum						
Control Section						
Guidance and Control Group						
Target Detector						
Safe and Arm Device						
Warhead						
Telemeter			N/A			
Guided Missile			N/A			
Propulsion Section (Rocket Motor)						
Canister			N/A			
Connector Round Identification						
17. DEVIATIONS AND WAIVERS		18. ORDALT/ECP INCORPORATED			19. TELEMETRY FREQUENCY (MHz)	
20. REMARKS						

Figure II-1-5. RAM Logbook Sample - contd.

RAM GMRP CONFIGURATION SUMMARY INSTRUCTIONS

This “RAM GMRP CONFIGURATION SUMMARY” form is only to be completed by the GMRP Original Equipment Manufacturer (OEM). A copy of the completed logbook shall be sent to the specified address as noted on the “GENERAL INSTRUCTIONS” page.

<u>Block</u>	<u>Instructions</u>
1	Enter the date the form was prepared.
2	Enter the Serial Number (S/N) and MK / MOD of the GMRP.
3	Enter the Activity UIC.
4	Enter the Navy Ammunition Logistics Code (NALC) of the GMRP.
5	Enter the National Stock Number (NSN) of the GMRP.
6	Enter the date that the missile was Ready for Issue (RFI).
7	Enter the date of the last successful functional Guidance and Control Group (GCG) test.
8	Enter the Recertification Due Date (RDD). (Recertification intervals: Block 0: US = 10 years, GE = 7 years; Block 1: US&GE = 7 years.
9	Enter the Condition Code of the GMRP.
10	Enter the Government or Contractor QA stamp for the inspector performing final acceptance of the GMRP.
11	No entries required.
12	Enter the MK / MOD or Part Number of the component. (For Software Version/Check Sum enter Software Version Number).
13	Enter the Serial Number of the component. (For Software Version/Check Sum enter Check Sum).
14	Enter the Lot Number of the component (if applicable). (NOTE: for the Propulsion lot number, enter the Rocket Motor lot number).
15	Enter the Name (acronym) of the manufacturer of the component. (Note: for the Propulsion section enter the Rocket Motor manufacturer).
16	Enter the Manufacture Date of the component.
17	Enter all Deviations and Waivers applicable to this GMRP.
18	Enter all ORDALT/ECP incorporated in the GMRP.
19	Enter Telemetry Frequency if applicable.
20	Enter any configuration remarks that exceed the available space in blocks 1 – 20 above.

Figure II-1-5. RAM Logbook Sample - contd.

II-1-11

Figure 11-1-5. RAM Logbook Sample - contd.

RAM GMRP TRANSACTION LOG

Whenever a GMRP changes custody (shipped or received), this form shall be completed and a copy shall be sent to the appropriate address below. Information regarding any delay between date shipped and date received shall be explained. Activities are required to report any damage caused while in-transit IAW local procedures in addition to any other reports required. If the GMRP has been exposed to some extreme condition, such as a vehicle accident or the weapon has been dropped, these facts shall be noted in the "Remarks" column and amplified on the back of the page, even if there is no apparent damage. The exposure of the weapon to an extreme condition shall be reported as a potentially hazardous incident and recorded. Additionally, shipboard GMRP stowage location shall be recorded.

NOTE: Within 24 hours after each entry, make a copy of this Transaction Log and forward to the appropriate address below:

U.S. NAVY ADDRESS:

Naval Surface Warfare Center Corona Division:
Code PE 31
P.O. Box 5000
Corona, California 92878-5000

GERMAN NAVY ADDRESS:

German Naval Office ML 522
Kopernikusstrasse 1
18063 Rostock Germany

Block**Instructions**

- | | |
|---|---|
| 1 | Enter the Serial Number and MK / MOD of the GMRP. |
| 2 | Enter the date shipped, received, or stowed. |
| 3 | Enter the Activity UIC. |
| 4 | Enter the GMRP Condition Code. |
| 5 | Enter the initials of the individual responsible for shipping/receiving. |
| 6 | Enter the Humidity Level % reading from the Canister Humidity Indicator. |
| 7 | Enter the GMRP container Serial Number. |
| 8 | The following information shall be written in the Remarks block:

A. Enter "shipped" if transferring the GMRP to another activity. Enter "received" upon receipt from another activity.
B. Enter the reason for transportation delays or discrepancies discovered during receipt inspection (including broken security seals), or other significant incidents.
C. Enter shipboard stowage location (example: magazine or GMLS Cell #).
D. If the Condition Code changes, enter the reason for the change and/or the defect code. |

Figure 11-1-5. RAM Logbook Sample - contd.

RAM GMRP SHIPPING CONTAINER SECURITY SEAL RECORD INSTRUCTIONS

Security Seal Installation: This form will be filled out by all personnel who are responsible for loading GMRPs into the RAM GMRP shipping container. To ensure the integrity of the GMRPs inside the shipping container, two (2) security seals shall be installed to the front right and left corners of each shipping container. Whenever a shipping container is shipped or received, an entry shall be made in the GMRP logbook to record the condition of the shipping container security seals and a copy of this form shall be forward to the appropriate address below:

U.S. NAVY ADDRESS:

COMMANDING OFFICER

ATTN: RAM PREFLIGHT ANALYSIS PROGRAM

Naval Surface Warfare Center Corona Division:

Code PE 31

P.O. Box 5000

Corona, California 92878-5000

GERMAN NAVY ADDRESS:

German Naval Office ML 522

Kopernikusstrasse 1

18063 Rostock Germany

Security Seal Inspections: If one or both of the security seals are found to be tampered with or broken, the following shall be performed: (1) U.S. Navy Fleet: The Organizational/Shipboard Level shall perform a GMRP inspection as called out in the MRC Number R-14. (2) Weapon Stations: The Intermediate Level shall perform a GMRP inspection as described in NAVSUP P-805/807.

Upon removal of security seals, draw a single line through the seal data. When new seals are installed, record the data as follows:

<u>Block</u>	<u>Instructions</u>
1	Enter the Serial Number and MK / MOD of the GMRP.
2	Enter the number stamped in the seal attached at the AFT and FWD ends of the container.
3	Enter the date (month/day/year) the seal was installed on the container.
4	Enter the initials or stamp of the person installing the seal.
5	Enter the GMRP container serial number.
6	Enter all Remarks. Enter specific seals found broken, circumstances, and specific steps taken to reestablish seal integrity.

Figure 11-1-5. RAM Logbook Sample - contd.

11-1-15

RAM GMRP FIRING SHIP REPORT (Instructions are on the back of this page)		1. DATE PREPARED MONTH DAY YEAR / /	
2. MK / MOD	3. RAM GMRP SERIAL No.	4. ACTIVITY UIC: SHIP NAME: HULL NO.	
5. DEFICIENCIES: Indicate deficiencies as follows: Describe details under "FIRING SHIP REMARKS"			
_____ Misfire _____ Hangfire _____ DUD _____ Missile Not Ready _____ Other			
Note: If the deficient RAM GMRP is being transferred, enter information in Transaction Log and forward copies of Transaction Log and shipping document to: COMMANDING OFFICER ATTN: RAM PREFLIGHT ANALYSIS PROGRAM Naval Surface Warfare Center Corona Division (PE31) P.O. Box 5000 Corona, California 92878-5000			
6. STATUS <div style="display: flex; justify-content: space-between;"> DATE FIRED _____ DATE TIME GROUP OF FIRING MESSAGE _____ </div> NOTE: If missile has been fired, return entire logbook and a copy of the firing message to: COMMANDING OFFICER ATTN: RAM PREFLIGHT ANALYSIS PROGRAM Naval Surface Warfare Center Corona Division (PE31) P.O. Box 5000 Corona, California 92878-5000			
7. FIRING SHIP REMARKS 			

Figure II-1-5. RAM Logbook Sample - contd.

RAM GMRP FIRING SHIP REPORT INSTRUCTIONS

When a RAM has been fired, this “RAM GMRP FIRING SHIP REPORT” form shall be completed and a brief unclassified description of the event shall be entered in the “FIRING SHIP REMARKS” block. This is in addition to the formal firing reports required by Type Commanders and local instructions. After this form has been completed, the entire original logbook shall be forwarded to the appropriate address below:

U.S. NAVY ADDRESS:

COMMANDING OFFICER
ATTN: RAM PREFLIGHT ANALYSIS PROGRAM
Naval Surface Warfare Center Corona Division:
Code PE 31
P.O. Box 5000
Corona, California 92878-5000

GERMAN NAVY ADDRESS:

German Naval Office ML 522
Kopernikusstrasse 1
18063 Rostock Germany

<u>Block</u>	<u>Instructions</u>
1	Enter the date prepared.
2	Enter the MK / MOD of the GMRP.
3	Enter the Serial Number of the GMRP.
4	Enter the Activity UIC, Ship Name, and Hull No.
5	Indicate the deficiency with a check mark.
6	Enter the Status information.
7	Enter the FIRING SHIP REMARKS.

Figure 11-1-5. RAM Logbook Sample - contd.

11-1-17

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NOTE

MDD for RAM is RDD (Recertification Due Date).

f. The missile is expended.

11.1.16.2 The missile logbooks are electronically generated at the AUR manufacture and consists of a

combined missile Configuration Summary Form (CSF) and missile log sheet, a logbook cover and any applicable safety tags. Anytime a missile is subjected to a Missile Re-issue Inspection, the logbook is updated in accordance with each system requirements. This will allow for collection of Fleet maintenance data, inspection findings, installation locations, etc.

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CHAPTER 11.2

Organizational Level Maintenance

11.2.1 General. This chapter describes the surface launched missile maintenance actions authorized to be performed by Navy ships. Organizational level maintenance directly supports and maintains the weapons system, which consists of the launcher, surface missile, and associated interface items.

11.2.2 Organizational Level (O-level) Maintenance. Surface launched missiles O-level maintenance is that maintenance which is performed by Navy shipboard personnel on a day-to-day basis in support of its operations. All maintenance actions are performed in accordance with approved Naval Sea Systems Command (NAVSEASYS COM) technical manuals, Maintenance Requirement Cards (MRC), and checklists that have been developed for each missile system and launch platform.

11.2.3 Missile Receipt and Inspection. Organizational level personnel inspect each missile prior to loading to ensure integrity. Missiles are inspected for dents, cracks, proper mating, and security of the assembly. Launcher interface connectors must be inspected to ensure that the connectors have dust covers and are clean and undamaged. Missiles that do not meet inspection criteria should be rejected and the supporting intermediate maintenance activity notified.

11.2.3.1 Missile Sentencing Inspection (MSI). An MSI is a visual external examination (screening) of the shipping container when a transfer of assets is accomplished. An MSI can be performed in operation buildings, segregation facilities, waterfront piers, or in any approved inspection area permitted by NAVSEA OP 5, Volume I, and NAVSEA SW020-AC-SAF-010. MSI procedures have been developed for each individual missile series and are contained in the NAVSUP P-805 and NAVSUP P-807.

11.2.3.2 Missile Reissue Inspection (MRI). The MRI is designed to take maximum advantage of surface launched missile Re-certification Due Dates (RDD). The RDD is the date a surface launched missile or component must be returned to the Depot for testing. The RDD is established by adding Serviceable In-Service Time (SIST) to the latest test date, but may not exceed the date that an internal component's service life will expire. The SIST is that period of time a surface launched missile may remain in operational use and/or

storage before its internal electronic or mechanical components require a test or maintenance action to validate suitability for operational use. The SIST clock starts with the Date of the Last Test (DOLT) performed by an authorized activity. Service life is the period of time a missile explosive component may remain in operation use and/or storage. The service life starts with the date of manufacture. Missiles failing the MRI are returned for required repair actions before reissue.

11.2.4 Missile Preparation for Loading. After receiving the missile and ensuring proper operational configuration, the missile is prepared for loading. Procedures vary depending on the system to be loaded. Specific procedural responsibilities are outlined in the applicable authorized Maintenance Requirement Card (MRC).

11.2.5 Missile Loading. During missile loading, O-level personnel install weapons in the launcher. Loading evolutions are performed by designated load team personnel in accordance with appropriate MRC's. Refer to the applicable missile system MRC for specific loading procedural requirements.

11.2.6 Postload Testing. A qualified O-level operator performs an inventory status test after loading to ensure proper interface between the launcher and the missile. Missile-in-launcher tests are performed to improve confidence that the weapon, as well as the launch platform will function properly. Procedures for testing are contained in the applicable authorized weapon system manual.

11.2.7 Missile Downloading. Downloading is the process of removing unexpended missiles and any residual hardware resulting from a missile expenditure from the launcher. It is conducted in accordance with applicable MRCs, technical manuals, and checklists.

11.2.8 Deficiency Reporting. Deficiency reports are initiated at the O-level when a discrepancy is discovered during the performance of any of the assigned O-level maintenance actions. Deficiency reporting procedures are contained in Volume I, Chapter 4.6 of this instruction.

11.2.9 Technical Bulletin. Organizational level personnel are responsible for assuring that Notice of Ammunition Reclassifications (NAR) and technical bulletins addressing weapons systems are complied with.

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11.2.10 Logbook Maintenance. To facilitate missile logbook maintenance, O-level personnel are responsible for providing complete and concise missile information, such as launcher/cell loading location, condition code, noted damage to the missile, missile failure, expenditure, etc. and provide completed copies as described within the weapons system's logbook (see Figure 11-1-5 of this Section for a sample Missile logbook).

11.2.11 Explosives Handling Personnel Qualification and Certification (Qual/Cert) Program. Organizational level personnel involved with the inspection and loading operation of surface launched missiles must be

trained, qualified, and certified to perform these maintenance action in accordance with the requirements of OPNAVINST 8020.14/MCO P8020.11.

11.2.12 Maintenance Training Requirements. Maintenance training is a continuous and ongoing process, conducted to ensure that personnel who operate, maintain, and support weapons systems and associated equipment are qualified to perform their respective functions. Formal and On-The-Job-Training (OJT), for missiles processed at O-level maintenance, may be augmented through the use of Engineering Technical Specialist.

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CHAPTER 11.3

Intermediate Level Maintenance

11.3.1 General. This chapter describes the surface launched missile maintenance actions assigned to Naval Weapon Stations and Shipboard Weapons Departments. Intermediate level maintenance enhances and sustains the combat readiness and mission capability of supported activities by providing quality and timely missile support at the closest location with the lowest practical expenditure.

11.3.2 Intermediate Level (I-level) Maintenance Responsibilities. Surface launched missile maintenance may be assigned to the intermediate level. All maintenance actions are to be performed in accordance with approved technical manuals including the NAVSUP P-805 and P-807, system specific manuals, and Standard Operating Procedures (SOPs), which have been developed for each surface launched missile system.

11.3.2.1 Receipt, Segregation, Storage, and Issue (RSSI). RSSI actions required to support maintenance of surface launched missiles processing is accomplished in accordance with NAVSUP P-805/P-807. Inspections are conducted on all surface launched missile containers received. Containers are inspected for proper marking and tagging and any possible damage. A container that is dented, crushed, punctured, or appears to be the result of damage to the containers, the proper authority shall be notified for appropriate deficiency reporting and disposition instructions.

11.3.2.2 Storage and Handling. Intermediate level maintenance is responsible for surface launched missile storage, which includes deep stowage, and ready service storage of surface launched missiles issued to the Organizational level to satisfy operational requirements. All handling, storing and transporting will be performed utilizing authorized equipment.

11.3.2.3 Cleaning. Cleaning consists of the removal of contaminants such as dirt, grease, salt spray, oil and other elements that aid corrosion. Cleaning requires a knowledge of the materials and methods needed to remove each of these contaminants. As a general rule, the mildest cleaning methods available that will work effectively is used. The NAVSEA corrosion manual addresses specific procedures to be followed for each type of metal to be cleaned, as well as the proper material to be used.

11.3.2.4 Preservation and Painting. Some surface launched missiles are subject to preservation and painting procedures as part of I-level maintenance. Intermediate level maintenance personnel clean all surfaces before applying the coating, ensuring that no cleaning material residue is trapped in fasteners, points, etc. These areas can become contaminated and corrosion will occur. While materials such as oils and sealants act as a preservative, painting is generally the most effective means of preserving metal. Painting is limited to a maximum of 25 percent of any section or component. Painting requirements that exceed this criteria must be performed at the Depot level in an authorized painting area.

11.3.2.5 Assembly and Test. Under the All-Up-Round (AUR) concept, surface launched missile assembly and testing is not normally performed by I-level maintenance activities.

11.3.2.6 Logbook Maintenance. To facilitate missile logbook maintenance, I-level personnel are responsible for providing complete and concise missile information, such as condition code, noted damage to the missile, missile failure, etc. and provide completed copies as described within the weapon system's logbook (see Figure 11-1-5 of this Section for a sample logbook).

11.3.2.6.1 Logbook Repository. The Naval Surface Warfare Center (NSWC), Corona, CA has been designated as the repository for all surface launched missile logbook information. Permanent files are periodically updated by maintenance data system input and are kept on each surface launched missile. Activities that receive incomplete or missing surface missile logbooks and records, should contact the NSWC, Corona, CA for a current copy of the logbook. Missing missile logbooks can be obtained by downloading them directly from a website by personnel with approved access for their type/model/series missile.

11.3.2.7 Shipping. Prior to shipment, surface launched missiles and their associated hardware (including logbooks) are packaged in accordance with the applicable authorized technical manual. Containers are sealed, marked, and tagged. All missile transactions and status changes are reported and tracked through Ordnance Information System (OIS).

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11.3.2.8 Technical Directives. Intermediate level ordnance personnel are responsible for assuring that Technical Directives (TDs) such as Notice of Ammunition Reclassifications (NARs) directed to that level are complied with.

11.3.3 Missile Receipt and Inspection. Intermediate level personnel inspect surface launched missiles and containers for dents, cracks, humidity level, M/RDD, etc. Missiles that do not meet inspection criteria should be repaired or rejected if Beyond Capable Maintenance (BCM) for the intermediate maintenance activity and the appropriate personnel notified.

11.3.3.1 Missile Sentencing Inspection (MSI). An MSI is a visual external examination (screening) of the shipping container when a transfer of assets is accomplished. An MSI can be performed in operation buildings, segregation facilities, waterfront piers, or in any approved inspection area permitted by NAVSEA OP 5, Volume I, and NAVSEA SW020-AC-SAF-010. MSI procedures have been developed for each individual missile series and are contained in the NAVSUP P-805 and NAVSUP P-807.

11.3.3.2 Missile Reissue Inspection (MRI). The MRI is designed to take maximum advantage of surface launched missile Re-certification Due Dates (RDD). The RDD is the date a surface launched missile or component must be returned to the Depot for testing. The RDD is established by adding Serviceable In-Service Time (SIST) to the latest test date, but may not exceed the date that an internal component's service life will expire. The SIST is that period of time a surface launched missile may remain in operational use and/or storage before its internal electronic or mechanical components require a test or maintenance action to validate suitability for operational use. The SIST clock starts with the Date of the Last Test (DOLT) performed by an authorized activity. Service life is the period of time a missile explosive component may remain in operation use and/or storage. The service life starts with the date of manufacture. Missiles failing the MRI are returned for required repair actions before reissue.

11.3.4 Deficiency Reporting. Deficiency reports are initiated at the I-level when a discrepancy is discovered

during the performance of any of the assigned I-level maintenance actions. Deficiency reporting procedures are contained in Volume I, Chapter 4.6 of this instruction.

11.3.5 Repackaging. During the MSI, non-serviceable AUR missiles may be repackaged as necessary to ensure serviceable AUR missiles remain available for issue at the WPNSTA level. AUR missiles with the same or similar RDDs are containerized together (depending on system) to take maximum advantage of the RDD and to provide for economical management of the workload and assets. The desiccant, humidity indicator, and packaging material are replaced as necessary. Re-stenciling and retagging operations are performed and the assets are then sealed. Repacking operations shall be in accordance with the appropriate technical manuals.

11.3.6 Crossdecking Requirements. Upon completion of the deployment, surface launched missiles which meet the inspection requirements specified for the specific surface launched missile system may be transferred (crossdecked) to the relieving ship when properly directed.

11.3.7 Re-certification and Repair. Upon expiration of the M/RDD or upon determination that maintenance is beyond the I-level, surface launched missiles must be returned to a depot maintenance activity for repair and re-certification before reissue.

11.3.8 Explosives Handling Personnel Qualification and Certification (Qual/Cert) Program. Intermediate level personnel involved with the maintenance of surface launched missiles must be trained, qualified, and certified to perform these maintenance actions in accordance with the requirements of OPNAVINST 8020.14/MCO P8020.11.

11.3.9 Maintenance Training Requirements. Maintenance training is a continuous and ongoing process, conducted to ensure that personnel who operate, maintain, and support weapons systems and associated equipment are qualified to perform their respective functions. Formal and On-The-Job-Training (OJT), may be used for surface launched missiles processed at I-level maintenance activities.

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CHAPTER 11.4

Depot Level Maintenance

11.4.1 General. This chapter describes the surface launched missile maintenance actions authorized for depots maintenance activities and other industrial level maintenance establishments. Depot level maintenance supports weapons and end item systems in a state of operational readiness consistent with the mission requirements of the operating forces at the least total cost. Depot level functions are carried out in industrial establishments through the use of more extensive facilities, skills, and materials or in the field by personnel from such establishments.

11.4.2 Industrial and Depot Level (D-level) Maintenance. Depot level maintenance responsibilities assigned to organic depots and commercial contractors include those actions required to maintain or restore the inherent design service levels of performance, reliability, and material condition. Depot level maintenance covers the complete rebuilding through reclamation, refurbishment, overhaul, repair, replacement, adjustment, servicing, and replacement of consumables. Depot maintenance actions are performed in accordance with applicable approved technical manuals and Depot Standard Operating Procedures (SOPs). Specific maintenance actions assigned to depots and commercial contractors include the following:

- a. All maintenance and modification actions necessary for the rework and repair of the surface launched missile sections and components under their cognizance.
- b. The manufacture of items and component parts otherwise not available when that action is deemed necessary and is appropriately authorized.
- c. The provision of support services functions, including professional engineering, technology, and calibration services, and field teams to support lower level maintenance when required and directed.

11.4.3 Missile Sentencing Inspection (MSI). The MSI is a visual external examination of palletized All-Up-Round (AUR) missile and components returned to a depot maintenance activity. The purpose of the missile sentencing inspection is to verify the hardware and condition of the assets received prior to induction into the depot.

11.4.4 Repackaging. During the missile incoming sentencing inspection, serviceable All-Up-Round (AUR) missiles may be repackaged as necessary to ensure serviceable AUR missiles are returned to the WPNSTA level. AUR missiles with the same or similar Re-sentencing Due Dates (RDDs) are containerized together (depending on system) to take maximum advantage of the RDD and to provide for economical management of the workload and assets. The desiccant, humidity indicator, and packaging material are replaced as necessary. Re-stenciling and retagging operations are performed and the assets are then sealed. Repackaging operations shall be in accordance with the appropriate technical manuals.

11.4.5 Material Received for Further Transfer. Containerized AUR surface launched missiles and surface launched missile sections or components, properly stenciled and tagged, sent to a depot facility need not be inspected by the depot except for safety considerations prior to temporary storage. If, during that inspection it is determined that maintenance actions are required on the container to assure safe and protected transfer of the material, the missile must be repackaged in an authorized, undamaged container in accordance with approved technical manuals.

11.4.6 Paint Touchup and Cleaning.

11.4.6.1 Cleaning consists of the removal of contaminants such as dirt, grease, salt spray, oil, and other elements that aid corrosion. Cleaning requires knowledge of the materials and methods needed to remove each of these contaminants. As a general rule, the mildest cleaning method available that will work effectively is used. The NAVSEA corrosion manual addresses the specific procedures to be followed for each type of metal to be cleaned, as well as the proper material to be used.

11.4.6.2 Painting at depot facilities is unlimited. Maintenance personnel will clean all surfaces before applying the paint coating, ensuring that no cleaning material residue is trapped in fasteners, points, etc.; such areas can become contaminated easily and corrosion will occur. While material such as oils and sealants act as a preservative, painting is generally the most effective means of preserving metal.

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11.4.7 All-Up-Round Missile and Section Testing and Test Equipment Certification. Depot and contractor facilities perform electrical tests on AUR missiles or missile sections and components to verify compliance with test specification parameters. Testing is accomplished on NAVSEA certified surface launched missile test equipment.

11.4.8 Failure Verification. Surface launched missiles that fail electrical test shall be re-checked to verify the indicated failure. Failures will be documented.

11.4.9 Removal and Replacement of Missile Sections. Missile sections or components that are removed from an AUR as a result of inspection, testing, or troubleshooting are replaced by a serviceable section. The faulty section or component is then set aside for further screening pending evaluation of the failure and cost effectiveness of repair. Interchangeability of missile sections or components will be in accordance with the applicable technical manual. When the missile configuration is changed by the addition or deletion of a section or component, the appropriate logbook's maintenance data system configuration summary form must also be annotated. Separate forms apply to each missile system. Figure 11-1-5 in this Section shows a sample logbook containing the configuration summary form.

11.4.10 Deficiency Reporting. Deficiency reports are initiated at the Organizational level when a discrepancy is discovered during the performance of any of the assigned Organizational level maintenance actions. Deficiency reporting procedures are contained in Volume I, Chapter 4.6 of this instruction.

11.4.11 Warranty Actions. The COMNAVSEASYS-COM warranty program will be discussed later.

11.4.12 Technical Directives. Depot level personnel are responsible for assuring that technical directives such as Notice of Ammunition Reclassifications (NAR)s

are complied with. They also assist in the development and verification of technical directives that ultimately affect them. This assistance includes engineering change proposal review, development of the resulting technical directive, and verification prior to implementation of the technical directive.

11.4.13 Logbook Maintenance. To facilitate missile logbook maintenance, intermediate level personnel are responsible for providing complete and concise missile information, such as condition code, noted damage to the missile, missile failure, etc. and provide completed copies as described within the weapon system's logbook.

11.4.14 Logbook Repository. The Naval Surface Warfare Center (NSWC), Corona has been designated as the repository for all surface launched missile logbook information. Permanent files are periodically updated by maintenance data system input and are kept on each surface launched missile. Activities that receive incomplete or missing surface missile logbooks and records, should contact the NSWC, Corona for a current copy of the logbook. Missing missile logbooks can be obtained by downloading them directly from a web-site by personnel with approved access for their type/model/series missile.

11.4.15 Explosives Handling Personnel Qualification and Certification (Qual/Cert) Program. Depot level personnel involved with the maintenance and handling of surface launched missiles must be trained, qualified, and certified to perform maintenance actions in accordance with the requirements of OPNAVINST 8020.14/MCO P8020.11.

11.4.16 Maintenance Training Requirements. Maintenance training is a continuous and ongoing process, conducted to ensure that personnel who operate, maintain, and support weapons systems and associated equipments are qualified to perform their respective functions.

SECTION 12

Airborne Mine Neutralization Systems

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CHAPTER 12.1

SEAFOX

12.1.1 Introduction. The AN/ASQ-232 (SEAFOX) provides neutralization of shallow and deep-water mines including bottom, close-tethered and in-volume mines which have been located by the AN/ASQ-14A sonar detecting set; AN/ASQ-24 detecting set, mine hunting; AN/AQS-20A, sonar mine detection set and/or other Mine Countermeasures (MCM) assets. The destruction of mines is achieved utilizing a shaped charge warhead integrated into the Destructor, Mine Neutralizer Airborne, EX 62 MOD 0, hereafter referred to as the Expandable Neutralizer. The AN/ASQ-232 consists of the Console/Seat Pallet Assembly, In Water Assembly (IWA), either an Expendable Neutralizer or Destructor, Mine Neutralization Airborne, Training, EX 63 MOD 0, hereafter referred to as the Training Neutralizer, and interconnect cables. The system requires the use of the Airborne Mine Countermeasures (AMCM) Precise Navigation System (PNS); various pieces of Peculiar Support Equipment (PSE); the AMCM Single-Winch II, RMU-38/A, hereafter referred to as the Single Winch II; the Winch Modification Kit (WMK), the Launch Box Assembly (LBA), the Davit/Sheave Assembly (DSA), and the IWA Cradle, all of which are AMCM Mission Interface Removable (MIR).

NOTE

All equipment listed below is considered aircraft equipment with the exception of the Expandable and training Neutralizers which are ordnance equipment.

12.1.1.1 Console/Seat Pallet Assembly. The console/seat pallet assembly consists of the following subassemblies:

d. The Operator Control Console (OCC) Assembly. This is a single bay console that is mounted to the pallet. Four lifting eyes are available for lifting the OCC on and off of the pallet. The OCC receives, processes, records and displays data form and issues command to the Neutralizer. This data is used for directing the Neutralizer to the mine target using the Track Point II Plus (TPII+) Acoustic Tracking System

(ATS) and mine hunting sonar. Additionally, the OCC serves as the platform for conducting the OCC POST, OCC Built-In-Test (BIT) and Neutralizer function tests and provides the interface with the MH-53E helicopter and AMCM PNS. The primary components of the OCC are:

(1) The OCC computer system is a Personal Computer (PC) based system, which runs guidance, sonar and server nodes. This system is located in the lower access compartment of the OCC.

(2) The display panel consists of four 10.4-inch, color, Liquid Crystal Display (LCD) screens: the mission display screen, the homing sonar display screen, the touch screen and the camera display screen.

(3) The Operator Control Panel (OCP) is the primary work station used by the operator for complete manual control of Neutralizer heading, depth, pitch and speed control via the console joystick and individual speed and pitch controls. A power on/off control switch, dimmer control, lamp fault indication panel and mechanically secured Neutralizer fire control (detonation) switch are also mounted on the panel. Additionally, the OCP houses a Remote Access Terminal (RAT) for sonar operation and target designation.

e. The pallet seat assembly includes two operator seats and the operator control console.

12.1.1.2 In Water Assembly (IWA). The IWA is cylindrically shaped and has a lift bar on the top midsection, neutralizer motor release assemblies on the bottom forward and aft, a hydrophone, tray assembly, and three fins mounted on the aft section; one starboard, one vertical and one port. The lift bar is the connecting point for the umbilical cable to the MH-53E helicopter. Neutralizer motor release assemblies provide connecting points for suspending the expendable or training neutralizer. The motor release assembly, spool is mounted on the underside of the starboard fin and has a spool clamp subassembly attached to it. The hydrophone and tray assemblies are

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used for tracking operations from the MH-53E helicopter.

12.1.1.3 Expendable Neutralizer. The expendable neutralizer is a fiber-optic, cable guided, self propelled mine neutralizer used to destroy moored and bottom mines. It incorporates the launch kit, B/C-spool and B-spool cable, sensors for mine relocation and identification, propulsion, and control subsystems and shaped charge warhead. Mines are neutralized using the shaped charge warhead or by punching a hole in the casing of the mine which renders it inoperative. Expendable neutralizers are used for only one mission. After activation of the Safe and Arming Unit (SAU), the warhead arming process is not reversible which prevents safe recovery. If a target is not acquired or the mission is aborted, either warhead sterilization or warhead self-destruction is initiated depending on the stage of the arming sequence.

12.1.1.4 Training Neutralizer. The training neutralizer is a fiber-optic cable guided, self propelled mine neutralizer used for training crews to detect and neutralize moored and bottom mines. It is positively buoyant, recoverable and reusable. The training neutralizer contains a transponder/responder, pressure sensor, compass module, SONAR, echo sounder, vertical thrusters, electronic try assembly, battery set, stabilizer fins, A-spool compartment, propulsion assemblies, camera and spotlight assembly, lead ballast (to compensate for the removal of the SAU and warhead), launch kit, B/C-spool and B-spool cable.

12.1.1.5 Interconnecting Cables. The interconnecting cables are used to connect the AN/ASQ-232 subsystems with the MH-53E helicopter.

12.1.2 Maintenance Plan Summary. The maintenance concept for the AN/ASQ-232 utilizes the three levels of maintenance concept as outlined in this Chapter. Maintenance functions for the Neutralizers are currently allocated to the Organizational level (O-level), Intermediate level (I-level), and Depot level (D-level) maintenance. Parts of the system are exposed to the saltwater environment, therefore, vigorous corrosion control inspection and treatment procedures are essential maintenance actions for both organizational and depot levels of maintenance.

12.1.2.1 O-level Maintenance. This level of maintenance is to be performed on the AN/ASQ-232 in shop spaces. Maintenance includes troubleshooting to the Weapons Replaceable Assembly (WRA), Shop Re-

placeable Assembly (SRA) and Sub-Shop Replaceable Assembly (SSRA) level and preventative (scheduled) maintenance. Faulty WRAs and SRAs will be sent to the Fleet Support Team (FST) for repair or replacement. Post operation system corrosion control includes cleaning and washing down of all components and PSE. O-level maintenance includes the following preventative and corrective (unscheduled) maintenance.

a. Preventative Maintenance. Maintenance normally occurs between missions and includes pre and post mission inspections and Periodic Maintenance Requirements Manual (PMRM) tasks.

b. Corrective Maintenance. This maintenance, performed by O-level technicians, includes replacement of WRA's, SRA's SSRA's, cleaning and reseating of loose or dirty connectors, filters and "O"-rings.

12.1.2.2 I-level Maintenance. This level of maintenance is performed aboard ship (afloat) or designated Aircraft Intermediate Maintenance Departments (AIMDs) ashore. Currently, I-level maintenance tasks on this system include requisition, receipt, storage, assembly, delivery and issuance of ordnance; breakout, strike up and strike down from/to magazines; visual inspection of ordnance and containers (special, conditional and breakout); corrosion control treatment and repainting, compliance with Notices of Ammunition Reclassifications (NARs) and Technical Directives (TD) and All-Up-Round (AUR) testing. I-level personnel (Navy Enlisted Code [NEC] 6801) will handle stated I-level maintenance. In addition, I-level personnel (NEC 8391 and AOs) will remove and replace Training Neutralizer propellers and maintain NiCad batteries when in their custody. The AIMD personnel will store and maintain NiCad batteries when in their custody. The Expendable Neutralizer is considered an AUR.

12.1.2.3 D-level Maintenance. NSWC Panama City (PC) FST personnel perform D-level maintenance. Systems and components are returned to D-level for repair. Depot NSWC PC will perform ordnance certification of the DSA, the IWA, the umbilical cable, the deck transport assembly and the hand transport assembly every four years. The FST is the designated overhaul authority for the expendable neutralizer. Standard Depot Level Maintenance (SDLM) is scheduled for the expendable neutralizer every three years. This SDLM cycle is based on the age and usage history of the system. Units shipped for SDLM induction must be in an operational Non Ready For

Issue (NRFI) status. Units received in an NRFI condition will be returned to the squadron.

12.1.3 Training Requirements Identified During Acquisition.

12.1.3.1 Navy Training Plan (NTP). The NTP is a product of the acquisition process. It is an official statement of billets, personnel, and training resource requirements needed to support the introduction and life-cycle operational use of an ordnance item or weapons system. The NTP assigns responsibilities for planning, programming, and implementing actions necessary to accomplish the following:

a. Ensure coordination of billets, personnel, military construction, training support, and training planning concurrently with the ordnance item or weapons system development and production.

b. Provide efficient and adequate training programs phased with initial ordnance item or weapons system introduction and subsequent modifications.

12.1.3.2 Training Aids. Another important training issue during the acquisition phase is identifying training aid requirements and including them in the acquisition plan. Training aids are covered in the NTP. However, occasionally an ordnance item or weapons system will be introduced into the system, or an existing one modified, which does not result in the development or update of an NTP. In these cases the need for new training aids must still be considered.

12.1.3.3 Training Aid Users. While developing an acquisition plan for a new ordnance item or weapons system, the following schools at a minimum need to be consulted to determine if any training aid requirements exist to provide proper training to the Fleet on the new item:

- a. Gunners Mate (GM) School,
Service Schools Command
(SERVSCOLCOM)
Great Lakes, IL 60088-5400
- b. Fleet Combat Training Center Atlantic
(FCTCL), Dam Neck
1912 Regulus Ave.
Virginia Beach, Va 23461-2098

c. Navy School, Explosive Ordnance Disposal
(NAVSCOLEOD)
Eglin AFB, FL 32542-6009

d. Defense Ammunition Center
Attn: SMAAC-DO
1 C Tree Road
McAlester, OK 74501-9054

12.1.4 Integrated Logistics Support (ILS) Elements. Supply Support. Naval Inventory Control Point, Mechanicsburg (NAVICP-M), Pennsylvania and the Naval Operational Logistics Support Center, Mechanicsburg (NOLSC-M), Pennsylvania provide traditional supply support. The interim support period will exist from the Initial Operational Capability (IOC) date until the Material Support Date (MSD). Interim spares will be located at NSWC PC. NAVICP-M has built the interim preliminary Allowance Parts List (APL) and preliminary Allowance Equipage List (AEL) to support the equipment. The 0-COGs currently assigned to the Interim Supply Support Plan (ISSP) will migrate to 7E and 1H 60 days prior to MSD.

12.1.4.1 Training. Formal operator and maintenance training is not required for support of the AN/ASQ-232. The following is a list of recommended training:

- a. Initial operator and maintenance training.
- b. Follow-on training for operator and maintenance personnel.
- c. Unit-level training is conducted for Fleet personnel by the FST at the Fleet location as required.
- d. Ordnance handling and certification training will be required to maintain an ordnance qualification certification program as outlined in OPNAVINST 8020.14/MCO P8020.11 and will be a joint effort between NSWC PC and COMNAVSEACBTWING-LANT. Each squadron will be responsible for qualifying and certifying weapons load teams.

12.1.4.2 Facilities Requirements. Facilities necessary to support the AN/ASQ-232 at the O-level and I-level include existing weatherproof storage and electronic shop space for conducting maintenance. A Specialized Repair Facility (SRF) is required for the expendable neutralizer. Facility analysis of industry and government team facilities will be accomplished prior to Fleet introduction to assess facilities for follow-on support, maintenance and material distribution.

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a. Shore-based facilities for maintenance and storage of the AN/ASQ-232 and its PSE and MIRs are adequate. Classroom training facilities are adequate for AN/ASQ-232.

b. Ship-based and non-CONUS facilities. AMCM squadrons receive limited AIMD support from aviation-type ships and overseas shore facilities. The stowage location is as follows:

Containerized/Bare Weapon Stowage Location	
LHA-1 Class	Number 9 Upper Cargo/ Weapons Magazine or as otherwise designated by Weapons Officer.
LHD-1 Class	Number 4 or Number 5 Upper Cargo/ Weapons Magazine or as otherwise designated by Weapons Officer.
LPD-4 Class	Cargo/ Weapons Magazine as designated by Weapons Officer.

12.1.4.3 Manpower skills and skill levels to support operational and maintenance aspects of the AN/

ASQ-232 are adequate. Refer to the Manpower Analysis Report for the MH-3H helicopter and AN/ASQ-232 Airborne Mine Neutralization System dated July 19, 2004.

12.1.4.4 Packaging, Handling, Shipping and Transportation (PHS&T). The AMNS equipment is packaged and shipped In Accordance With (IAW) MIL-STD-129P, Marking Military Equipment for Shipping and Storage. Unique Identification markings will be IAW MIL-STD-130L, Identification Marking of U.S. Military Property. Both Neutralizers use the same storage container (P/N 34952). The remaining components (non-ordnance) and support equipment for each system are stored in three separate storage containers: Part Numbers: 34857 (container 1), 34860 (container 2), and 34863 (container 3). The AMNS System will be preserved IAW Naval Air Systems Command Instruction (NAVAIR) 17-1-125, Support Equipment Cleaning, Preservation and Corrosion Control.

12.1.4.5 Plan Changes. Recommended changes for this system will be submitted to the Program Executive Officer, Mine and Undersea Warfare, Washington Navy Yard, 1333 Isaac Hull Avenue, S.E. Building 201, 4th Floor, Washington, DC 20376; with copy to AMCM Fleet Readiness Fleet Support Team, Naval Surface Warfare Center, 110 Vernon Avenue, Panama City, FL 32407-7001, ATTN: Code A22.

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CHAPTER 12.2

Rapid Airborne Mine Clearance System (RAMICS)

12.2.1 Rapid Airborne Mine Clearance System (RAMICS). The RAMICS (AN/AWS-2) is a non-towed airborne mine neutralization system that is operated from an MH-60S Organic Airborne Mine Countermeasure (OAMCM) helicopter and deployed from the Littoral Combat Ship (LCS) in the Carrier Strike Group (CSG) and Expeditionary Strike Group (ESG). It provides a rapid response clearance capability against near-surface and surface (floating) moored mines that have been detected, classified, and localized by the Airborne Laser Mine Detection System (ALMDS) or other mine hunting systems.

12.2.2 Physical and Functional Description. The RAMICS Pod Subsystem consists of an Environmental Control System (ECS); Targeting and Fire Control Subsystem (TFCS); Pod Housing Subsystem (PHS) (Government Furnished Equipment (GFE)); Pod Pressurization Subsystem (PPS); the Gun Subsystem, which is comprised of a Gun and Turret with Northrop Grumman Corporation (NGC) supplied collimator.

c. RAMICS uses an electro-optic Light Detecting and Ranging (LIDAR) system to reacquire a target and aim the Gun Subsystem (GS). The gun is a MK44 30mm gun that uses the Munition Element (ME) MK 258 Mod 1 Armor Piercing Fin Stabilized Discarding Sabot Tracer (APFSDS-T). This projectile is stable during air flight, successfully penetrates the surface of the water, and supercavitates while in the water, which greatly reduces the drag and improves underwater flight performance.

d. The GS uses the MK 44 Bushmaster Cannon that is a chain driven automatic gun that fires a 30mm munition. This gun is also slated to be used on the AAV and LPD-17 and is capable of firing projectiles with high kinetic energy and high accuracy but is relatively light weight. The munition that will be used by RAMICS is a modification of the 30mm MK 258 Mode 0 APFSDS-T. The RAMICS version is designated MK 258 Mod 1 APFSDS-T. The nose of the projectile is modified (blunted) so that it generates a water cavity the remainder of the penetrator flies in. This phenomenon is termed supercavitation and allows the projectile to reach the required depths

with sufficient kinetic energy to penetrate the mine casing and neutralize the mine by deflagration, detonation or sinking. The fins of the penetrator provide stabilization in air and water.

e. The turret was developed specifically for RAMICS. It is capable of pointing the gun with high accuracy and providing a significant recoil reduction (from more than 7000 lbs. to less than 4000 lbs.) while being lightweight and compact. The low recoil allows the gun to be mounted on the helicopter without risk of structural damage. The combination of gun, turret and munition provides RAMICS with the capability to fire high-energy projectiles at a mine target with high accuracy and high probability of neutralization.

12.2.3 Maintenance Concept. The RAMICS pod has a two-level Maintenance Concept (Organizational to Depot level (O-D). The RAMICS gun system will have three levels of maintenance. (O-Intermediate (I)-D).

12.2.3.1 The pod two level concept includes removal and replacement of the RAMICS Weapon Replaceable Assembly (WRA) at the O-level with follow-on repair to be completed at the Depot. The two level maintenance concept described herein is based on the preliminary Level of Repair Analysis (LORA) results. A two-level Maintenance Concept is the most cost effective manner of minimizing the Life Cycle Costs (LCC) while maintaining the specified system readiness objectives. The Maintenance Concept associated with the RAMICS adheres to the requirements of the Statement Of Work (SOW), and the Concept of Operations for the MH-60S Anti-Mine Warfare Operations In the Battle Group.

NOTE

For the purpose of this document, the following definitions will be used when discussing the system hierarchy:

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a. The WRAs are the AN/AWS-2 end item, the Gun Subsystem, the Bore-sight Laser and the Collimator.

b. The Shop Replaceable Assemblies (SRAs) are the subassemblies of the WRAs: Laser Assembly, Processor Chassis Assembly, Power Distribution Assembly (PDA), Receiver Assembly, Gimbal Assembly, Environmental Control Subsystem (ECS), Pod Pressurization Subsystem (PPS), Pod Housing Subsystem.

12.2.4 Built-In-Test (BIT) Design. There are three types of BIT run by the RAMICS:

a. Power Up BIT (PUB). PUB begins when power is first applied. When electrical power is applied to RAMICS (through actuation of a Common Console control) the system will automatically start up in the STANDBY State and begin performing PUBs.

b. Continuous BIT (CBIT). RAMICS is designed so that BIT's automatically initiate periodically during the operation of the system, where they do not interfere with the safe operation of the subsystems/WRAs involved.

c. Operator Initiated BIT (OIB). OIB, like the other BIT capabilities, monitors the status of system health, mission critical components and system safety interlocks.

12.2.4.1 Power Up and Continuous BIT run automatically, but the continuous BIT is less extensive. Operator-Initiated has some features that are not available for the automatic modes.

12.2.5 Reliability and Maintainability. The design of the RAMICS exceeds all Reliability and Maintainability (R&M) requirements and features a low risk R&M program. These features include:

a. A single, sealed System containing the laser and all optical components which does not require any alignment at the Organization level (O-level). This eliminates the need for special maintainer skills and special support equipment. The sealed optics/laser path also protects the equipment from contamination by dust, moisture, or salt.

b. Extended life of the diode array due to the narrow laser pulse width.

c. Environmental protection from damage due to temperature, pressure, vibration, humidity, and salt.

12.2.5.1 Reliability Analysis will be updated throughout the System Design and Development (SD&D) phase and the results will be fed back into the design process so that deficiencies can be identified and corrected. Preliminary reliability predictions indicate that the RAMICS has a series Mean Time Between Failure (MTBF) of 284 hours. Preliminary predictions are based on vendor supplied data and MIL-HDBK-217 parts count predictions.

12.2.6 Support Equipment Requirements. NGC will provide Support Equipment (SE) obtained as Government Furnished Equipment (GFE) and factory type test equipment in sufficient quantity to support specified maintenance requirements for the RAMICS System. NGC will also identify materials and services, equipment, tools, and outfitting of facilities to accomplish specified Organizational and Depot level maintenance requirements.

12.2.7 Manpower Skills and Facility Requirements. There is no requirement for additional manpower skills at the O-level. A Class I clean room is required to complete repairs on the Laser Transmitter/Receiver Subassembly, and will be provided by the Original Equipment Manufacturer (OEM). The Safety Analysis has determined that the Laser will never be safe for repair at the O-level.

12.2.7.1 Organizational Maintenance Tasks. Maintenance tasks at O-level are minimal. These tasks will include:

a. Removal of the RAMICS from the shipping container and preparation for flight.

b. Installation of the RAMICS Pod and check-out on the aircraft.

c. Removal of the RAMICS from the aircraft and installation in the shipping container.

d. Removal of the collimator.

e. Removal of the Boresight Laser Assembly.

f. Boresight alignment.

g. Performing periodic inspections and Planned Maintenance System (PMS) Services.

h. NGC will not prepare any Battle Damage Assessment Reports (BDAR) for the RAMICS.

12.2.7.2 Depot Maintenance Requirement. The Depot or contractor facility will be responsible for repairing the RAMICS WRA and all SRAs designated as repairable.

12.2.7.3 Contractor Support. Interim Contractor Support will be provided through completion of the flight test program. Any additional contractor support will be addressed after award of a production contract.

12.2.7.4 Manpower and Personnel Integration. Manpower, Personnel, and Training (MPT) considerations are integrated into the design effort of the RAMICS to improve total system performance and reduce cost of ownership. This is accomplished by focusing attention on the capabilities and limitations of the sailor. A key enabler of this effort will be modern Information Technology as it relates to Interactive Electronic Technical Manuals (IETMs) and training data.

12.2.7.5 The Manpower and Personnel Integration consists of conducting a detailed maintenance manpower analysis, designing systems to minimize maintenance requirements, and developing a training system for maintenance personnel utilizing the Navy's Training Planning Process Methodology (TRPPM). TRPPM produces a single product, the initial Navy Training System Plan (NTSP). This plan ensures MPT considerations are integrated into the design effort of RAMICS. It is expected that maintenance tasks associated with the RAMICS will be within the capabilities of the Navy's existing enlisted rating structure.

12.2.7.6 Avionics Technicians (AT) with an as yet undetermined Navy Enlisted Classification (NEC) will be assigned to MH-60S squadrons to provide maintenance support for the RAMICS. These technicians will be fully trained to conduct maintenance on the RAMICS as well as the additional OAMCM systems as required. These technicians will be the keystones to supporting OAMCM maintenance requirements while deployed in the field/on the flight deck and during lily-pad operations.

12.2.7.7 Aviation Ordnancemen (AO), NEC Code 8378, will perform aircraft mission configuration of the RAMICS. This Airborne Mine Countermeasure (AMCM) systems maintenance support concept is

similar to that currently in place within the Helicopter Mine Countermeasures Community and is supported by the Office of the Chief of Naval Operations (CNO).

12.2.8 General Training Requirements. Training requirements for individuals and groups involved directly or indirectly in ordnance or explosives handling can be found in many different instructions. Most process governing instructions contain a section which identifies required training. NAVSEA OP 5 covers a broad spectrum of training requirements. Each TYCOM has ordnance training courses listed in their training requirements manual. There are many technical training courses available to cover training requirements in the following:

- a. Ordnance management.
- b. Explosives safety.
- c. Ordnance transportation.
- d. Ordnance handling.
- e. Ordnance automated management systems.

12.2.9 Training Sources. For many, identifying all of the available training is as difficult as determining all of the training requirements. No one document exists that identifies all of the available ordnance training. One good source is the Catalog of Navy Training Courses (CANTRAC). The shortfall of the CANTRAC is that it only lists formal schoolhouse training identified by a Navy Course Identification Number (CIN). In this era of joint training, there are many formal ordnance training courses offered by the Army that are available to the Navy, and informal ordnance training courses within the Navy, that do not have an assigned Navy CIN. Another good reference for training sources is NAVSEA OP 5. The Catalog of Nonresident Training Courses, NAVEDTRA 12061, provides information on available correspondence courses.

12.2.10 Schoolhouses. The following schoolhouses provide the majority of the formal training or training materials for informal training:

- a. Defense Ammunition Center (DAC) McAlester, OK. As directed in DoD 5160.65-M, DAC provides training in ordnance management, explosives safety, and ordnance transportation to all DoD military and civilian personnel. Navy related training is available thru Computer Based Training (CBT) CD-

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ROM media and conducted both at DAC and on site at the requesting activity. Further information can be obtained by accessing the DAC website is available at: <https://www3.dac.army.mil/navy/>.

b. Fleet Combat Training Center (FCTCL), Dam Neck, VA. FCTCL provides training in ordnance management and ordnance handling for military personnel on the east coast. Further information can be obtained by accessing the FCTCL website.

c. Fleet Training Center (FTC), San Diego, CA. FTC provides training in ordnance management and ordnance handling for military personnel on the West coast. Further information can be obtained by accessing the FTC website.

d. Surface Warfare Officer's School (SWOS), Newport RI. SWOS provides ordnance management training for Surface Warfare Officers. Further information can be obtained by accessing the SWOS website.