

DEPARTMENT OF THE NAVY

OFFICE OF THE CHIEF OF NAVAL OPERATIONS 2000 NAVY PENTAGON WASHINGTON, D. C. 20350-2000

IN REPLY REFER TO

OPNAVINST 4030.1A NAVICP 077 07 Feb 06

OPNAV INSTRUCTION 4030.1A

From: Chief of Naval Operations

Subj: NAVY PACKAGING PROGRAM

Ref:

- (a) DOD 4140.1-R of 23 May 03
- (b) Joint Issuance AR 700-15/NAVSUPINST 4030.28E/AFJMAN 24-206/MCO 4030.33C/DLAR 4145.7 of 12 Jan 04
- (c) MIL-STD-2073-1D(1) "DOD Standard Practice for Military Packaging" of 10 May 02
- (d) MIL-STD-648 "Design Criteria for Specialized Shipping Containers" of 11 Feb 99
- (e) DOD 4500.9-R Part II of Nov 04
- (f) ASTM D 3951 (NOTAL)
- (g) MIL-STD-129P "Military Marking for Shipment and Storage" of 29 Oct 2004
- (h) Joint Issuance AR 700-143/DLAD 4145.41/AFJI 24-201/NAVSUPINST 4030.55B/MCO P4030.40B "Packaging of Hazardous Material" of 14 Jan 00
- (i) 49CFR 100-199
- (j) Joint Issuance AFJMAN 24-204/TM 38-250/NAVSUP Pub 505/MCO 4030.19H/DLAM 4145.3 of 11 Dec 01
- (k) MIL-STD-1686C "Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices)" of 25 Oct 95
- (1) MIL-HDBK-773 "Electrostatic Discharge Protective Packaging" of 30 June 2005
- (m) DODI 4715.4 of 6 Jul 98
- (n) SECNAVINST 5090.8
- (o) OPNAVINST 5090.1B
- (p) USD (AT&L) Memorandum Radio Frequency Identification (RFID) (Series)
- (q) USD (AT&L) Memorandum Update to Policy for Unique Identification (UID) of Tangible Items (Series)
- (r) SECNAVINST 4355.18A
- (s) NAVSUP Pub 700 Navy Packaging Data
- 1. <u>Purpose</u>. This instruction states the objectives of the Navy packaging program and delineates the major responsibilities within the Navy for attaining these objectives. This instruction is a complete revision and should be reviewed in its entirety.
- 2. Cancellation. OPNAVINST 4030.1.

- 3. <u>Scope</u>. This instruction applies to all Navy activities involved in the Navy packaging program. This includes the development of packaging requirements, specifications and levels of protection; acquisition and development of containers and packaging materials; shipment, handling and storage of material as well as research and development efforts impacting packaging.
- 4. <u>Definitions</u>. The following definitions are applicable to this instruction:
 - a. Packaging-related Terms
- (1) Packaging, Handling, Storage and Transportation (PHS&T). PHS&T is a set of design and development parameters that assure a system, sub-system, component or equipment is compatible with the aircraft, ship, rail, truck and helicopter external lift/internal carry capabilities available to deploy/move systems for strategic or tactical purposes.
- (2) <u>Packaging</u>. An all-encompassing term describing the methods and materials used to protect material from deterioration or damage. Packaging includes the processes of preservation, cleaning, drying, packing, marking and unitization.
- (3) Commercial Packaging. The methods and materials employed by the supplier to satisfy the requirements of that supplier's distribution system.
- (4) <u>Military Packaging</u>. The methods and materials described in federal or military specifications, standards, drawings or other authorized documents or systems designed to prevent damage or deterioration during distribution or storage of materiel.
- (5) <u>Packing</u>. The assembling of materiel into an exterior pack, consisting of a container, bundle or assembly, with the necessary blocking, bracing, cushioning, weatherproofing, reinforcement and marking.
- (6) Preservation. The processes and procedures used to protect materiel against corrosion, deterioration and physical damage during shipment, handling and storage. As applicable, preservation includes cleaning, drying, application of preservative, wrapping, cushioning, containers (unit and intermediate) and complete identification markings up to, but not including, the exterior shipping container
 - (7) Marking. Application of numbers, letters, labels,

tags, symbols, or colors for identification purposes during shipment, handling and storage.

- (8) Unitization. The assembly of exterior packs of one or more line items of supply into a single load so that the load can be handled as a unit through the distribution system. Unitization (unitized loads or unit loads) encompasses consolidation in a container, placement on a pallet or load base or securely binding together.
- (9) Containerization. The use of transport containers (that is, container express, military van, sea van, roll on/roll off trailers) to unitize cargo for transportation, supply and storage. Containerization aids carriage of goods by one or more modes of transportation without the need for intermediate handling of the contents.
- (10) Reusable Container. A shipping and storage container designed for reuse without impairment of its protective function. It may be repaired, refitted, or both, to prolong its life or to adapt it for shipment of items other than that for which it was originally intended.
- (11) <u>Hazardous Material</u>. A substance or material that has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety and property when transported in commerce and has been so designated.
- (12) Electrostatic Discharge (ESD) Protective Packaging. Packaging designed with ESD protective materials to minimize the chance of damage through the transmission of a charge to sensitive items. Packing designed to protect electronic circuits from electrostatic charges.

b. Additional Terms

- (1) Automatic Identification Technology (AIT). AIT is a suite of technologies that enable and facilitate the accurate capture and rapid transmission of machine-readable data to Automated Information Systems (AIS), thereby enhancing the readiness of deploying forces with improved knowledge of their equipment, personnel and capabilities in support of their respective mission.
- (2) Electronic Product Code (EPC). EPC is a product-numbering scheme that can provide unique identification for physical objects, assemblies and systems. Information is not stored directly within the code; rather, the code serves as a reference for networked (or Internet-based) information. In other words, the code is an "address" that tells a computer where it should go to find information on the Internet.

- (3) <u>Hazards of Electromagnetic Radiation to Fuels</u>
 (HERF). The high intensity radio frequency fields produced by modern radio and radar transmitting equipment can spark ignition of volatile combustibles.
- (4) <u>Hazards of Electromagnetic Radiation to Ordnance</u> (HERO). The high intensity radio frequency fields produced by modern radio and radar transmitting equipment can cause sensitive Electro-Explosive Devices (EEDs) contained in ordnance systems to actuate prematurely.
- (5) <u>Hazards of Electromagnetic Radiation to Personnel</u> (HERP). The high intensity radio frequency fields produced by modern radio and radar transmitting equipment can produce harmful biological effects in humans.
- (6) Radio Frequency Identification (RFID). RFID uses low-powered radio transmitters to read data stored in a transponder tag at distances ranging from 1 inch to 300 feet. RFID tags are used to track assets, manage inventory and authorize payments. They are increasingly being used as electronic keys for everything from autos to secure facilities. The two concepts of RFID are as follows:
- (a) Active RFID. The active RFID concept uses an internal power source (battery) within the tag to continuously power the tag and its Radio Frequency (RF) communications circuitry.
- (b) <u>Passive RFID</u>. The passive RFID concept relies on RF energy transferred from the reader/interrogator to the tag in order to power the tag.
- (7) Unique Identification (UID). UID is the set of data for tangible assets that is globally unique and unambiguous, ensures data integrity and data quality throughout life and supports multi-faceted business applications and users.
- 5. Policy. Navy packaging will conform to this instruction and references (a) through (e). References (b) and (c) establish detailed policy and provide information and guidance on implementation of policy; packaging requirements, specifications and levels of protection; procedures for developing protection requirements; and major packaging responsibilities within the Navy. Highlights of Navy policy are provided for emphasis as follows:
- a. As stated in reference (c), it is Department of Defense (DOD) policy "to use commercial packaging practices for all items unless it is shown that commercial packaging practices cannot provide adequate protection and preservation."

Commercial packaging must meet the requirements of reference (f) or the specific industry packaging standard for the commodity being purchased. Reference (c) will be required only when commercial packaging cannot meet known distribution and environmental requirements. Military packaging, as outlined in reference (c), shall be used for items for which commercial packaging will not meet operational demands. Examples include the following:

- (1) Items that cannot be protected and preserved in a cost-effective manner using commercial packaging.
- (2) Items delivered during wartime for deployment with or sustainment to operational units.
 - (3) Items requiring reusable containers.
 - (4) Items intended for delivery-at-sea.
- b. All items of supply packaged per reference (c) and entering the military distribution system will be marked per reference (f). If material is entering the military distribution system not packaged per reference (c), and if it is deemed essential to have military markings, then reference (g) markings will be specified in procurement contracts.
- Reference (h) provides complete policy and guidance on the packaging of hazardous material for safe, efficient and legal storage, handling and transportation. In general, all DOD-managed hazardous materials will be provided minimum required packaging protection at the lowest overall cost without compromising established DOD and Department of Transportation (DOT) safety standards. Adequate, continuous protection of the packaged hazardous materials must be provided and the packaging shall prevent any release of the hazardous material into the environment. When hazardous materials are shipped, packaging, labeling, marking and placarding of the container (if applicable) shall conform to the applicable modal regulations found in references (h), (i) and (j), as well as the International Civil Aviation Organization (ICAO) technical instructions, the International Air Transport Association (IATA) regulations and the International Maritime Dangerous Goods (IMDG) Code/International Maritime Organization (IMO).
- d. Packaging required for protection of Electrostatic Discharge Sensitive (ESDS) items against damage and deterioration from the time of acquisition to anticipated use are to be provided at the time of acquisition. Guidelines in the identification, packaging, handling and storing of ESDS items are contained in references (k) and (l).

- e. In keeping with the policies contained in references (m), (n) and (o), pollution of the environment due to packaging operations at Navy activities will be controlled and held to a minimum. Environmental quality standards prescribed by Federal, state and local authorities will be used in determining measures to control pollution. Navy packaging shall take into consideration methods of disposability, reuse, degradability (when it meets logistics needs), recycling and conservation when selecting packaging material. Additionally, the use of plastic packaging materials for the protection of supplies forwarded to Navy ships will be kept to an absolute minimum.
- f. Packaging shall be compatible with AIT, RFID and UID policies as contained in references (p) and (q). Specifically, all AIT packing and marking must meet the requirements of reference (p) under EPC guidelines. The guidelines set forth in reference (p) must also be followed when AIT components are being unitized and/or containerized. Care must also be taken to ensure that AIT components do not violate HERF/HERO/HERP standards.
- 6. Packaging Objectives. The overarching objective of the Navy Packaging Program is to provide adequate, efficient protection while minimizing total ownership cost to users of the Navy Packaging Program. This includes protection during handling, shipment and storage throughout the material's life cycle. In implementing this policy, the emphasis should always be on the adequate protection of material. Additional objectives are to:
- a. Begin planning early enough in a program's life to influence, and ultimately minimize, life cycle costs.
- b. Achieve optimal shelf life, utility and performance of supplies, materials and equipment through prevention of deterioration.
- c. Facilitate efficient receipt, storage/stowage, inventory, transfer and issue of material.
- d. Facilitate efficient handling, receipt, storage/stowage, inventory and transfer of repairable retrograde material from the user to the designated overhaul point. This includes processing through Advanced Traceability and Control (ATAC) nodes/hubs.
- e. Facilitate efficient movement of supplies, materials and equipment during the transportation leg of the logistics pipeline.
- f. Provide identification, precautionary and shipment markings for handling, shipment, storage and issue operations, especially through the use of AIT per reference (g).

- g. Promote to the maximum extent possible, uniformity in the development of requirements for preservation, packing and marking for shipment and storage/stowage of the same or similar items.
- h. Maintain asset protection for material in long-term storage at fleet storage and/or defense distribution centers.
- i. Ensure the use of packages and shipping containers of a minimum weight and cube consistent with anticipated storage and shipment hazards and issue needs.
- j. Ensure that packaging operations, whether performed within Navy or outsourced, perform in a manner to maximize cost effectiveness by considering their use of work methods, workplace layout, facilities and mix of packaging materials. Optimize throughout with the objective of minimizing storage facilities and weight handling equipment requirements.
- k. Support DOD-promulgated RFID policy to improve data quality, item management, asset visibility and material maintenance. As stated in reference (p), this policy has two parts. First, it calls for immediate implementation of the RFID active, data-rich tag to meet In Transit Visibility (ITV) requirements for container level cargo. The second part calls for DOD to be an early adopter of innovative RFID technology, notably the passive RFID tag, for use at the case/unit pack level to optimize the supply chain. Coordinate AIT efforts with the NAVSUP Navy AIT office.
- 1. Ensure that item level and manifest level packaging complies in the most effective, efficient and economical manner to environmental laws and treaties.
- m. Ensure non-manufactured wood packaging materials are properly processed and marked to comply with latest Wood Packaging Materials guidance. The marking shall either be the American Lumber Standards Committee (ALSC) marking or the DOD stamp or stencil, as appropriate.
- 7. Organizational Functions. In order to attain the objectives set forth in paragraph 6, packaging functions must be effectively discharged by all organizations involved in the Navy Packaging Program. Management is centralized at the department level for policy formulation and technical guidance and decentralized at the Systems Command (SYSCOM) and field levels for the determination of specific packaging requirements per planned or anticipated logistical needs. Major functions are as follows:

- a. The Director, Supply, Ordnance and Logistics Operations Division (OPNAV N41) has overall responsibility for Navy packaging policy, provides oversight of the Navy Packaging Program and ensures congruence with the Navy's overall strategic goals and objectives.
- b. Naval Air Systems Command (NAVAIR) has functional packaging responsibility for material under its cognizance in all areas of naval aviation, including aircraft weapons, air launched armament items, aircraft components systems, support equipment, facilities and stations.
- c. Naval Sea Systems Command (NAVSEA) has functional packaging responsibility for material under its cognizance. NAVSEA provides professional guidance to all elements of the Navy on packaging and handling ammunition and explosives. NAVSEA ensures that packaging and handling designs and procedures are developed and used for all surface launched and underwater ammunition, including mines, torpedoes and demolition materials. Additionally, NAVSEA ensures that packaging and handling designs and procedures are developed and used for all ship/shore equipment and parts, including machinery, electrical/electronic items and ordnance except for those items specifically assigned to NAVAIR or the Space and Naval Warfare Systems Command (SPAWAR).
- d. SPAWAR has functional packaging responsibility for material under its cognizance. This responsibility covers material related to the performance of its mission to provide the warfighter with knowledge superiority by developing, delivering and maintaining effective, capable and integrated command, control, communications, computer, intelligence and surveillance and reconnaissance (C4ISR) systems.
- e. Naval Supply Systems Command (NAVSUP) has functional responsibility for development and execution of policies and methods governing supply management of naval material, including preservation, packaging, packing and marking; administers packaging programs having Navy-wide implications and coordinates within Navy, DOD components and with Government agencies and industries on behalf of CNO (N41).
- f. Naval Facilities Engineering Command (NAVFAC) has functional responsibility to develop packaging requirements which support their overall plans, designs, operations and maintenance of cranes both land-based and floating, public works and utilities; construction, transportation and weight handling equipment; advanced base functional components/tables of allowance for Naval Construction Forces and other Expeditionary Warfare units as well as equipment aboard Maritime Preposition Force ships.

- g. The Commander, Fleet Forces Command (COMFLTFORCOM); Commander, U.S. Pacific Fleet (COMPACFLT); and Commander, U.S. Naval Forces, Europe (COMUSNAVEUR) are force providers, sustainers and trainers for the respective unified commands to which they report. They have responsibility for operational and training matters under their unified commands. COMFLTFORCOM is additionally responsible for overall coordination, establishment and implementation of integrated requirements and policies for manning, equipping and training Atlantic and Pacific Fleets during the inter-deployment training cycle. In support of the Navy Packaging Program, they ensure personnel are properly trained in and make use of approved packaging methodologies.
- h. The Office of Naval Research (ONR) coordinates, executes and promotes the science and technology programs of the United States Navy and Marine Corps through schools, universities, government laboratories and non-profit and for-profit organizations. It provides technical advice to the CNO and the Secretary of the Navy (SECNAV) and works with industry to improve technology-manufacturing processes. In support of the Navy Packaging Program, ONR and the Science and Technology community will respond with appropriate technology development programs as commands identify requirements for packaging improvements.
- 8. <u>Major Packaging Responsibilities</u>. Specific packaging responsibilities are assigned as follows:
- a. NAVSUP. NAVSUP, by delegation from CNO (N41), is responsible for providing supply management policies and methods (technical guidance) relative to packaging of Navy material to activities of the Navy. In the performance of this responsibility, NAVSUP will draw upon the material management experience and capability of the cognizant SYSCOM inherent in the execution of their assigned material support mission. Additionally, per reference (o) NAVSUP serves as the overall manager for the supply aspects of the Navy Hazardous Material Control and Management (HMC&M) with the mandate to work with the Fleet and type commanders to minimize the risks associated with the use of hazardous material. Major supply management responsibilities to be carried out by NAVSUP include the following:
- (1) Representing the Navy in the development of DOD packaging policy and presenting the Navy position after collaboration with the SYSCOMs and Program Managers (PMs). Serves as the Navy representative to the Defense Packaging Policy Group (DPPG) established by Chapter 8 of reference (a) and implemented by reference (b).

- (2) Establishing, after coordination with SYSCOMs and program/project managers, packaging policies and reviewing the implementation thereof.
- (3) Maintaining appropriate liaison with CNO (N41) to assure that packaging policies are in consonance with operational and mobilization planning.
- (4) Performing the PHS&T portion of the Independent Logistics Assessments (ILAs).
- (5) Evaluating, coordinating as appropriate, and responding to industry, Secretarial and Congressional inquiries, and Government Accountability Office (GAO) and Audit Service reports of a general nature having Navy-wide application.
- (6) Ensuring the coordination of packaging programs and projects having common application within the Navy and with other DOD components, civil agencies and industry.
- (7) Chairing the Navy Packaging Board (see paragraph 11 below for a description of the Navy Packaging Board's role and responsibilities).
- (8) Developing, in cooperation with responsible training authorities, training programs on packaging determined necessary to meet operational requirements. Developing Navy input to training doctrine and publications developed for joint service use and advising on the technical and administrative aspects in Joint Service training programs.
- (9) Ensuring that packaging, including any AIT components, abides by references (p) and (q) as applicable.
- (10) Providing packaging design interface and compatibility requirements related to shipboard storage design, transportation and warehousing environments.
- b. SYSCOMs and program/project managers are responsible for:
- (1) Ensuring that the PHS&T logistics element is addressed and a PHS&T logistics element manager is assigned to all weapon system acquisition programs.
- (2) Ensuring that for all Navy acquisition programs, all ILAs as well as Initial Operating Capability Reviews (IOCRs) include specific assessment of the PHS&T functional logistics process (logistics element). NAVICP on behalf of NAVSUP shall perform these PHS&T ILAs.

- (3) Designing, developing and documenting packaging requirements for the commodities under their technical cognizance and for coordinating the packaging requirements for program-managed systems with logistics managers.
- (4) Ensuring that packaging data is accurately entered and updated into appropriate logistics databases.
- (5) Including packaging requirements in all acquisition and supply transactions.
- (6) Issuing instructions, as appropriate, to insure the continued integrity of the package protection initially provided during the period material is in the logistics system.
- (7) Procuring packaging data from commercial sources at the time of acquisition of new systems/components through the Contract Data Requirements Lists (CDRLs) in contracts.
- (8) Staying apprised of new methods and materials and, as requirements for packaging improvements are identified, working with the science and technology community in the development of appropriate technology programs.
- (9) Participating in the DOD program for reporting and correcting packaging deficiencies as outlined in reference (r).
- (10) Requiring that adequate protection is provided per Navy policy when SYSCOMs or their subordinate commands are shipping material within their assigned mission.
- (11) Providing, when appropriate, reusable containers and internal attachments needed for protecting repairable items during their life cycle and establishing, again when appropriate, systems for control, deployment, repair and disposal of such containers and packaging materials.
- (12) Developing necessary standardization documents for packaging materials, methods and equipment and coordinating with other DOD components, SYSCOMs, civil agencies and industrial associations as appropriate.
- (13) Evaluating and responding to industry, Secretarial and Congressional inquiries and GAO and Audit Service reports on packaging matters within their assigned mission.
- c. COMFLTFORCOM, COMPACFLT, COMUSNAVEUR and Chief of Naval Air Training are responsible for:
- (1) Issuing instructions, as appropriate, to insure the continued integrity of the package protection initially provided during the period material is in the logistics system.

- (2) Requiring maintenance of adequate packaging of stocks for which they have storage custody responsibility.
- (3) Participating in the DOD program for reporting and correcting packaging deficiencies as outlined in reference (r).
- (4) Initiating, developing and conducting such packaging training programs as may be needed to support Fleet operations.
- (5) Requiring that adequate protection is provided to unserviceable items returned for repair.
- (6) Providing input to the Navy Packaging Board regarding shipboard handling and storage/stowage requirements as they impact on PHS&T.
- d. NAVICP has both supply management and technical packaging responsibilities.
- (1) Supply Management Packaging Responsibilities. Within NAVSUP, NAVICP, serving as the Assistant Chief of Staff (ACOS) for Acquisition, has the overall packaging lead. As such, the responsibilities noted in paragraph 8a(1) through 8a(9) will be carried out by NAVICP. In addition, NAVICP supply management packaging responsibilities include the following:
- (a) Serving as the PHS&T functional logistics process manager (logistics element manager) for Navy SYSCOM-assigned acquisition programs.
- (b) Serving as the PHS&T assessor for ILAs and IOCRs conducted on all Navy acquisition programs at each major program milestone.
- (c) Monitoring Navy action on packaging discrepancies and their corrections as delineated in reference (r).
- (d) Maintaining reference (s) which mandates packaging requirements for all Navy activities, contractors and transshippers performing packaging, handling, storage and transportation functions for Depot Level Repairables (DLRs) and Navy-managed consumables. Reference (s) covers methods of preservation required to protect material against degradation and to insure further use of material by the Navy at a reduced cost. Reference (s) also provides MIL-STD-2073 coding for Navy-controlled stock numbers.
- (e) Conducting a periodic review of procedures for the packaging of items being returned for repair or overhaul and

initiating such implementing or corrective action as may be appropriate.

- (f) Providing oversight of the Preservation, Packaging, Packing and Marking (PPP&M) process performed at naval depots.
- (g) Providing oversight of the Care of Supplies in Storage (COSIS) process.
- (h) Monitoring and providing oversight on the issues and regulations related to Wood Packaging Materials (WPM) as they affect the Navy Packaging Program.
- (i) Ensuring that the requirements for Performance Oriented Packaging (POP) are met for naval material other than ordnance and material handling equipment.
- (j) Managing the Container Reuse and Refurbishment Center (CRRC) program.
- (2) <u>Technical Packaging Responsibilities</u>. NAVICP is recognized for the following technical packaging responsibilities:
- (a) Serves as the engineering design agent for non-ordnance reusable containers. See paragraph 9a(1) for additional information.
- (b) Develops reusable containers and other PHS&T systems for both NAVAIR and NAVSEA non-ordnance acquisition programs.
- (c) Represents the NAVSUP community in the development of the optimal acquisition strategy for new equipments and weapon systems when serving as the SYSCOM-designated PHS&T logistics element manager in order to ensure that systems being acquired can be packaged, handled, stored/stowed and transported in the most effective manner without impacting the functional requirements of the equipment and weapon system being acquired.
- e. The Naval Surface Warfare Center (NSWC) Indian Head Division Detachment Earle's PHS&T Center has the following packaging responsibilities:
- (1) Serves as the Navy engineering design agent for ordnance reusable containers. See paragraph 9a(2) for additional information.
- (2) Coordinates all efforts related to the certification of ordnance packaging with regard to the regulations imposed by

DOD, the Department of Transportation (DOT) and other international agencies/modal regulations.

- (3) Prepares and issues Certificates of Equivalency (COE's) for those packages which require certification per reference (i) section 173.7(a).
- (4) Prepares Competent Authority Approval (CAA) requests for those ammunition and explosive package designs that vary from prescribed DOT/international modal regulations.
- (5) Serves as the Navy's focal point for POP testing of ammunition and explosive packaging.
- 9. Establishment of Technical Authorities. In order to ensure that clear lines of technical authority are known, the following activities are assigned in the areas of reusable container design, packaging materials testing and underway replenishment procedures.

a. Reusable Container Design

- (1) NAVICP serves as the Navy Engineering Design Agent for all non-ordnance reusable containers. This capacity involves basic design engineering functions; engineering analyses and technical evaluations of PHS&T-related issues; container logistics functions; performing cost analyses and providing technical guidance to Assistant Program Managers for Logistics (APML) and contractors.
- (2) NSWC Indian Head Division Detachment Earle's PHS&T Center serves as the NAVSEA agent responsible for identification of life cycle requirements, conception, design, development, prototype fabrication, test and evaluation, production acquisition and documentation of ordnance containers and handling equipment. Although a field activity of NAVSEA, the PHS&T Center serves as the Navy Engineering Design Agent for ordnance reusable containers. The PHS&T Center also serves as the technical custodian for reference (d).
- b. Packaging Materials Testing. The Military Packaging Laboratory located at the Naval Air Warfare Center Aircraft Division (NAWCAD) in Lakehurst, N.J., is the DOD qualification activity for testing and qualifying specialty barrier materials. Current qualification testing is performed for adherence to the following military specifications: MIL-PRF-131, MIL-PRF-3420, MIL-PRF-22019, MIL-PRF-22191 and MIL-PRF-81705. The activity is also responsible for preparing and updating DOD test methods and corresponding packaging specifications, standards and qualified products lists. Additionally, NAWCAD Lakehurst is designated as the lead service activity for test and evaluation of

Electromagnetic Interference (EMI) and ESDS protective packaging materials.

- c. Underway Replenishment Procedures. When designing various packages for use within the Navy PHS&T program, the developers must ensure their packages will interface with underway replenishment systems/equipment. To assist in this effort the following activities have responsibilities:
- (1) NSWC Port Hueneme shall provide Connected Replenishment (CONREP) interface criteria as it relates to packaging design.
- (2) U.S. Army Natick labs shall provide Vertical Replenishment (VERTREP) interface criteria as it relates to packaging design.
- 10. <u>Funding</u>. Responsibilities for funding, which are restated herein, do not alter previous agreements. These responsibilities shall be as follows:
- a. Funds for Research, Development, Test and Evaluation (RDT&E) product improvement studies and in-service engineering effort of packaging methods, procedures and materials shall be provided by the SYSCOM, other command or office sponsoring such effort.
- b. Funds for the PHS&T Logistics Element Manager support function, as well as reusable container design/development/acquisition function, shall be provided by the Hardware Systems Command (HSC) or PM of the weapons system requiring such support.
- c. Funds for Navy Packaging Board/broad-based Navy Packaging Program initiatives shall be provided as directed by CNO (N41).
- d. Funds for packaging associated with procurement of supplies, material and equipment shall be provided by the SYSCOM, other command or office funding the procurement or obtaining the excess supplies, material and equipment.
- e. Funds for packaging or repackaging items in storage custody for purposes of upgrading the existing packaging shall be provided by the authority directing such upgrading.
- f. Funds for replacement or renewal of packaging necessitated by item inspection, testing or exercising shall be provided by the authority directing such inspection, testing or exercising, except that, in the case of Government Furnished Equipment (GFE) in the physical custody of private or Government

construction shipyards, costs shall be charged to the end cost of the ship.

- g. Funds for packaging associated with Naval manufacture, alteration, repair or overhaul shall be provided by the SYSCOM, other command or office funding such manufacture, alteration, repair or overhaul. These funds shall normally be budgeted for and furnished as a part of the end cost of such manufacture, alteration, repair or overhaul. (This provision does not apply to mandatory turn-in repairable material. Funds for packaging associated with such material shall be provided as indicated in paragraph 10i.)
- h. Funds for maintaining packaging of items in storage custody, including preparing stock for shipment or issue as part of a normal supply support responsibility, shall be provided by the activity performing the supply operation. (This provision does not apply to unprotected repaired or overhauled items that have been placed in storage custody awaiting distribution instructions. Funds for packaging associated with repaired or overhauled items shall be provided as indicated in paragraph 10g.)
- i. Funds required to protect mandatory turn-in repairable material from damage during transit will be provided by the activity/ship initiating the turn-in for repair. Additional packaging required for subsequent handling and shipment will be provided by the activity receiving the turn-in for transshipment.
- j. Funds required to protect material turned into store during transit will be provided by the activity/ship returning the material. Funds for subsequent packaging of material for induction of the material into storage will be provided by the activity gaining the material. (This provision does not apply to material being returned from ships being deactivated. Funds for packaging associated with deactivation of ships shall be provided as indicated in paragraph 10k.)
- k. Funds for packaging of material being returned from ships that are being deactivated shall be provided by:
- (1) Inventory managers directing return of material to stock, or
- (2) SYSCOMs, other command, office or activity/ship requesting custody of material, or
 - (3) Deactivation funds for all other instances.
- 1. Funds for packaging operational equipment, such as gun mounts, engines and missile launchers, removed from active ships

shall be furnished by the authority directing such removal and packaging.

- m. Funds for packaging of items/components removed from stored/stricken aircraft shall be furnished by the authority directing such removal.
- 11. Navy Packaging Board. The Navy Packaging Board is hereby established as a permanent forum to serve as an advisory staff to CNO N41 and as a coordinating group to ensure the Navy is fulfilling its packaging responsibilities.

a. Responsibilities

- (1) Develop recommendations concerning changes to DON and DOD policies, guidance and standardization for the packaging, handling, storage and transportability of Navy materials, supplies and equipment.
- (2) Integrate efforts of members and non-members to derive and implement solutions to Navy PHS&T issues.
- (3) Promote ongoing dialog between those commands and agencies involved in and affected by the DON Packaging Program in order to promote uniform understanding of policies, objectives, implementing programs and logistical requirements. Provide liaison/perform advisor duties to Navy Program Executive Offices (PEOs)/PMs for PHS&T issues.
- (4) Review commercial packaging practices and new development in order to more rapidly adopt those that may be of benefit to military packaging.
- (5) Serve as a means for the exchange of information on laboratory investigations, field tests and research and development activities in the packaging field.
- (6) Ensure that packaging related trends having national sociological and ecological implications are given full consideration.
 - (7) Coordinate Navy interests for the DPPG.
- b. Membership. All Navy SYSCOMs or their designated representatives; COMFLTFORCOM; Headquarters, United States Marine Corps (HQ USMC); NAVAIR Aircraft Division Lakehurst; and NSWC Indian Head Division PHST Center Earle are members. NAVICP Philadelphia is the designated representative for both NAVSUP and NAVAIR. NAVICP Code 077 will chair the board. Representation from other Government agencies and departments is invited to participate in meetings as appropriate. Special

guests from industry and government may be invited to attend the meetings in an advisory capacity.

- c. Charter. The NAVICP shall be responsible to establish and maintain the Navy Packaging Board charter and any changes must be approved by a majority of its voting members.
- 12. <u>Staffing</u>. Organizations with a material support mission are expected to provide a qualified staff needed to meet their responsibilities for attaining the objectives set forth herein.
- 13. <u>Implementation</u>. Addressees are requested to implement and abide by this instruction, as appropriate, to assure fulfillment of the responsibilities set forth herein.

/s/

A. S. THOMPSON

Rear Admiral, Supply Corps, U. S. Navy Director, Supply, Ordnance, Logistics Operations Division (OPNAV N41)

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