

NOT MEASUREMENT SENSITIVE

MIL-STD-2177(AS)  
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MILITARY STANDARD

DEPOT REWORK SPECIFICATION.  
AIR-LAUNCHED WEAPONS, ARMAMENT, ORDNANCE,  
MISSILE LAUNCHERS, AND PECULIAR SUPPORT EQUIPMENT.  
PREPARATION OF



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DEPARTMENT OF THE NAVY  
NAVAL AIR SYSTEMS COMMAND  
WASHINGTON, DC 20361-0001

Depot Rework Specification, Air-Launched Weapons, Armament,  
Ordnance, Missile Launchers, and Peculiar Support Equipment;  
Preparation of

1. This Military Standard is approved for use within the  
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## 1. SCOPE

1.1 Purpose. The purpose of this standard is to standardize the preparation of a depot rework specification, hereinafter referred to as 'specification' or 'depot rework specification,' covering organic and commercial depot-level rework of air-launched weapons, armament, ordnance, missile launchers, and peculiar support equipment (PSE). The specification shall contain specific provisions for performing depot-level maintenance by designated overhaul points; including receipt, inspection, repair, test, and final acceptance of repairable items. The specification shall provide for dedicated facilities; resources; and detailed requirements for inspection, repair, overhaul, and maintenance of weapon replaceable assemblies (WRA) and shop replaceable assemblies (SRA). The attribute requirements of WRAs and SRAs, and the performance requirements of the end item, shall be defined therein. The specification produced in accordance with this standard shall be used to establish a depot-level rework program as a separate contract procurement which will be coordinated with the weapon system operational and logistics support program.

1.2 Scope. This standard establishes the format, contents, and procedures for the preparation of depot rework specifications for air-launched weapons, armament, ordnance, PSE, and missile launchers.

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## 2. REFERENCED DOCUMENTS

2.1 Government documents.

2.1.1 Specifications and standards. Unless otherwise specified, the following specifications and standards of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation form a part of this standard to the extent specified herein.

## SPECIFICATIONS

## MILITARY

MIL-P-116	Preservation, Methods of
MIL-M-38784	Manuals, Technical: General Style and Format and Requirements

## STANDARDS

## MILITARY

MIL-STD-129	Marking for Shipment and Storage
MIL-STD-280	Definitions of Item Levels, Item Exchangeability, Models and Related Terms
MIL-STD-794	Parts and Equipment, Procedures for Packaging of
MIL-STD-961	Military Specifications and Associated Documents, Preparation of

2.1.2 Other Government document and publications. The following other Government document and publications form a part of this standard to the extent specified herein.

## OTHER GOVERNMENT DOCUMENT

CFR	Title 49, Code of Federal Regulations
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## PUBLICATIONS

DOD5220.22-M	Industrial Security Manual for Safeguarding Classified Information
NAVAIRINST 4423.3B	Policies, Procedures and Responsibilities for Assignment and Application of Uniform Source, Maintenance, and Recoverability (SM&R) Codes

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NAVSUP PUB 505

Packaging and Materials Handling.  
Preparation of Hazardous Materials  
for Military Air Shipment

DLAH 8200.1

Defense In-plant Quality Assurance  
Program

(Copies of specifications, standards, other Government documents, and publications required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting officer.)

2.2 Order of precedence. In the event of a conflict between the text of this standard and the references cited herein, the text of this standard shall take precedence.

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## 3. DEFINITIONS

3.1 Configuration. The functional and physical characteristics of hardware and software as set forth in technical documentation and achieved in a product.

3.2 Configuration control. The systematic evaluation, coordination, approval or disapproval, and implementation of initial configuration, and changes from that initial configuration.

3.3 Contract Data Requirements list (CDRL) (DD Form 1423). A form that specifies the data required to be furnished. The form defines the content-preparation and distribution instructions for each report or other data item.

3.4 Depot level repair. The highest level of repair performed at designated maintenance activities to augment stocks of serviceable material. Depot level repair normally consists of examination, test, repair, modification, alteration, modernization, conversion, overhaul, reclamation, or rebuild of parts, assemblies, subassemblies, components, equipment, items and weapon systems; and the manufacture of critical non-available parts. Depot repair is normally accomplished at a designated Navy, other service(s), or contractor(s) activity.

3.5 Depot level repairable. Any item, component, or equipment that is source-, maintenance-, and recoverability (SM&R)- coded for depot level repair or condemnation that fails to conform to its minimum prescribed operational limits.

3.6 Designated overhaul point (DOP). An activity (including an activity of another service or a contractor) designated by a hardware systems Command or Project Manager to perform the highest (depot) level of repair on a particular item or group of items. Provides technical assistance to intermediate maintenance organizations, user activities, and other activities.

3.7 Equipment. One or more components capable of performing a complete function.

3.8 Failure. The inability of an item to perform within previously specified limits.

3.9 Failure analysis. The investigation into the degree of imperfection to which an item has degenerated (or failed) when measured against a previously specified limit.



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3.10 Failure diagnosis. The investigation of the facts available (such as an investigation of the failed item itself, of failure mode(s), and of contributory causes) to determine the nature of the failure.

3.11 Government inspection(s). Inspection(s) (examinations and tests), including in-process inspections, conducted by the government to ensure that deliverable items are being repaired in accordance with the requirements of the applicable contract, specification, and technical repair standards (TRS). These inspections may be conducted at a DOP or source facility at any time during the repair cycle of the items.

3.12 Hardware. End items, physical equipment, or repairable items.

3.13 Inventory control point. An organizational unit or activity within a Department of Defense (DOD) supply system which is assigned the primary responsibility for the supply management of a group of items either for a particular service or the DOD as a whole. (See 'inventory manager')

3.14 Inventory manager. Same as 'inventory control point.'

3.15 Item. A non-specific term used to denote, as specified in MIL-STD-280, any product, such as a system, set, group, unit, assembly, subassembly, or part.

3.16 Overhaul. The process of reconditioning an item to conform to the current technical specifications of the item, and with a life expectancy equal to similarly configured new equipment. Overhaul is accomplished by cosmetic reconditioning; by installation of all approved engineering and field changes; and by repair or replacement of parts and components that have failed or are of marginal quality due to wear, deterioration, or damage so as to preclude premature failure.

3.17 Quality. Used exclusively in this standard to refer to the completeness of content of the technical repair standard for use at the DOP in terms of reliability, accuracy, retrievability, and operability.

3.18 Repair. The process of returning an unserviceable item to operational status by repair or replacement of parts or components that have failed or are of marginal quality due to wear, deterioration, or damage.

3.19 Repairable item. An item which, when capable of being serviced, can normally be economically restored to a serviceable condition through repair procedures performed by a government facility or commercial overhaul facility.

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3.20 Replaceable item. A non-repairable item or one that is not economically feasible to repair.

3.21 Rework. The generic term which includes repair, updating, parts replacement, restoration, reconditioning, and preventive maintenance.

3.22 Source, maintenance, and recoverability code. A six digit alphabetical code, assigned by the item manager in accordance with the approved maintenance concept, reflecting authorized levels of hardware repair, disposition, and source of spare/repair parts.

3.23 System. An item made up of two or more equipment (sets) or components, each having their own identity and nomenclature, and arranged and interconnected to perform a specific operation.

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## 4. GENERAL REQUIREMENTS

4.1 Format and style. Depot rework specifications produced using this standard shall be military specifications prepared in accordance with MIL-STD-961 and as specified herein.

4.2 Technical content. The depot rework specification shall provide the detailed instructions, procedures, and supporting technical data for an effective and efficient method of performing the depot level rework of an item(s) covered by the specification. The specification shall contain sequentially numbered sections in accordance with MIL-STD-961, DETAILED REQUIREMENTS, and as specified in 5.1 through 5.7.3 herein.

4.3 Security.

4.3.1 Security classification. Unless otherwise unavoidable, the depot rework specification should not contain classified information. When classified information must be included, the security classification shall be assigned by the procuring activity. Marking, handling, production, and packaging of all classified material shall be in accordance with DODINST 5220.22-M. DD Form 254 (Contract Security Classifications Specification) identifies and indicates the sensitive equipment features requiring security classification.

4.3.2 Security classification markings. When the depot rework specification includes classified information; marking, handling, and production of all classified material shall be in accordance with MIL-M-38784, Security classification. On foldout pages, the security classification shall be so placed as to be visible when the printed page is either folded or open.

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## 5. DETAILED REQUIREMENTS

5.1 General. This section contains detailed format requirements for preparing the sections of a depot rework specification.

5.2 Section 1. Section 1 shall be titled 'SCOPE,' and shall be prepared in accordance with MIL-STD-961 and as specified herein. The scope shall provide a brief summary of the purpose, organization, and contents of the specification; and shall identify all repairable item(s) by nomenclature, designation, and part number. If the specification is for a repairable end item, identification of the sub-item(s) shall be included in tabular form. A detailed description of the end-item overall dimensions shall be provided in tabular form.

5.3 Section 2. Section 2 shall be titled 'APPLICABLE DOCUMENTS,' and shall be prepared in accordance with MIL-STD-961.

5.4 Section 3. Section 3 shall be titled 'REQUIREMENTS,' and shall be prepared in accordance with MIL-STD-961 and as specified herein.

5.4.1 General description. Section 3 shall contain a paragraph titled 'General description' which shall provide a brief description of the end item, including physical and functional characteristics. Appropriate drawings, diagrams, and specifications shall be referenced therein. The major assemblies and subassemblies (such as guidance sets, seekers, radomes, controls, modules, trays, and containers) shall be identified by nomenclature, and their interface and application within the prime system described. Major assembly and subassembly baseline configuration identification shall be provided in tabular form. Part numbers, national stock numbers, and manufacturers' codes shall be provided, if available, to better identify the end item and provide interface definitions.

5.4.2 General requirements. Section 3 shall contain a paragraph titled 'General requirements' which shall be a paragraph heading only. Subparagraphs shall include, but shall not be limited to, those of 5.4.2.1 through 5.4.2.3.

5.4.2.1 Policy. Section 3 shall include a paragraph titled 'Policy.' This paragraph shall specify that the depot rework specification governs the requirements for depot level maintenance and support; and that the designated overhaul point (DOP) shall provide the facilities, equipment, and personnel skills necessary to perform fault isolation, fault diagnosis, verification of rework, and

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acceptance testing of end items returned for repair or retrofit.

5.4.2.2 Hardware rework flow. Section 3 shall include a paragraph titled 'Hardware rework flow.' This paragraph shall describe a representative logistics cycle for the flow and processing of end items returned from the Fleet or other services (including foreign missile sales and intermediate level maintenance activities (weapon stations)) for rework or rework and modification. It shall also describe routing of the field-returned end item through the various stages of initial receipt and inspection to final acceptance and preparation for shipment. An example of a repair process flow and secondary rework flow, indicating decision points, action points, operation descriptions, and test points, shall be provided in flow chart format

5.4.2.3 Rework assessment testing. Section 3 shall include a paragraph titled 'Rework assessment testing' which defines the contractor's and government's roles in the performance of rework assessment to ensure the quality and reliability of reworked hardware. This paragraph shall require that the government specify the detailed process by which reworked hardware is subjected to rework assessment testing and analysis within government-controlled facilities. Requirements for the performance of government inspections (including shipment evaluation and corrective actions for detected failures of reworked hardware) shall be defined.

5.4.3 Detailed requirements. Section 3 shall contain a paragraph titled 'Detailed requirements' which shall be a paragraph heading only. Subparagraphs shall include, but shall not be limited to, those of 5.4.3.1 through 5.4.3.16, in the order shown.

5.4.3.1 Economic repair limitation. Section 3 shall include a paragraph titled 'Economic repair limitation' which shall specify the criteria for economic repair of an end item (reference may be made to the paragraph in the depot rework specification titled 'Fault repair criteria' (see 5.4.3.7.1)). Requirements for disposition of Fleet-returned hardware deemed non-economically repairable or too costly to achieve marginal reliability shall be specified therein. Section 3 shall provide for notification to the inventory control point (ICP)/inventory manager upon determination that the repairable item is beyond economical repair, and that items so determined shall be dispositioned in accordance with ICP/inventory manager direction.

5.4.3.2 Material review board. Section 3 shall include a paragraph titled 'Material review board' which shall require that a Material Review Board (MRB), responsible for evaluation and disposition of rejected and nonconforming items operate in accordance with established procedures of

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the DOP. The specification shall state that the MRB may be composed of representatives from other departments of the DOP as required.

5.4.3.3 Spare/repair parts support. Section 3 shall include a paragraph titled 'Spare/repair parts support' which shall be a paragraph heading only. Subparagraphs shall include, but shall not be limited to, those of 5.4.3.3.2 through 5.4.3.3.7.

5.4.3.3.1 General. Section 3 shall describe the tasks involved in the identification, selection, ordering, and control of 'spare/repair parts' (hereinafter referred to as 'repair parts') for support of depot level rework. The specification shall cover the following topics: Supply documentation; repair parts orders; repair parts deliveries; government- and contractor-furnished repair parts; replenishment actions; accountability and control; configuration control; and usage, consumption, and inventory reports (Note: The depot rework specification shall not require data items to be generated. Such requirements shall be included only in the CDRL).

5.4.3.3.2 Repair parts. Section 3 shall include a paragraph titled 'Repair parts' which shall require the DOP to provide services and facilities to maintain the stock of repair parts intended for support of depot rework. The DOP shall be required to participate in the provisioning process as directed by the Naval Air Systems Command cognizant field activity (CFA).

5.4.3.3.3 Repair parts deliveries. Section 3 shall include a paragraph titled 'Repair parts deliveries' which shall specify delivery requirements for all repair parts ordered for depot rework, and that documented DOP repair parts may be drop shipped directly to bonded storerooms subsequent to use at a contractor's repair facility.

5.4.3.3.4 Government- and contractor-furnished repair parts. Section 3 shall include a paragraph titled 'Government- and contractor-furnished repair parts' which shall specify the procedures by which government-owned repair parts available in contractor-bonded storerooms can be utilized in rework. This paragraph shall also specify that repair parts not delivered or not available in bonded storerooms may be provided by the contractor and charged to the applicable repair order, if approved by the government.

5.4.3.3.5 Accountability and control of repair parts. Section 3 shall include a paragraph titled 'Accountability and control of repair parts.' This paragraph shall specify that all repair parts delivered to contractor-bonded storage areas shall be delivered to, and be accepted by, the procuring activity on a DD Form 250; and that depot repair

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parts shall be limited to those specified on authorized requisitions. The specification shall require that depot repair parts shall not be co-mingled in storage with contractor-, other contractor-, or other customer-owned material unless authorized by the procuring activity.

5.4.3.3.6 Repair parts disposition. Section 3 shall include a paragraph titled 'Repair parts disposition.' This paragraph shall require that after successful diagnosis and rework of items, repair parts used during trouble shooting and fault isolation shall be accounted for; and that such parts shall be so identified and forwarded to the MRB for proper disposition.

5.4.3.3.7 Rejected repair parts. Section 3 shall include a paragraph titled 'Rejected repair parts.' This paragraph shall require all repair parts rejected during the rework cycle to be accounted for by established procedures, and for the MRB to determine disposition of all rejected repair parts.

5.4.3.4 Configuration management. Section 3 shall include a paragraph titled 'Configuration management.' This paragraph shall require the DOP to provide and maintain a configuration control traceability system in accordance with MIL-Q-9858 and internal DOP procedures. This paragraph shall also require that when unanticipated configuration problems arise, government approval shall be requested for configurations not defined by the rework data package

5.4.3.5 Receiving. Section 3 shall include a paragraph titled 'Receiving.' This paragraph shall specify that upon initial receipt of field-returned hardware, shipping documents shall be checked against the hardware received. Incoming hardware shall be placed unpacked in a controlled access area in the presence of personnel from the DOP Quality Assurance (QA) department. If the DOP is a contractor facility, a Defense Contract Administration Services Procurement Office (DCASPRO) representative will witness the unpacking process. In certain cases, the Defense Contract Administration (DCAS) function may be performed by the Navy/Air Force Plant Representatives Office. Incoming material shall be visually examined for discrepancies and physical damage.

5.4.3.6 Incoming functional test. Section 3 shall include a paragraph titled 'Incoming functional test.' This paragraph shall require that an incoming test be performed on end items in accordance with approved procedures and specifications (which shall be specified therein), and on approved test equipment, in order to verify the validity of the reported failures, and to detect other possible functional failures and determine their extent.



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5.4.3.7 Disassembly, repair, and assembly. Section 3 shall include a paragraph titled 'Disassembly, repair, and assembly' which shall specify the disassembly, repair, and assembly procedures to be performed on depot level end items. This paragraph shall also include the following:

- a. Identification of approved rework procedural documentation and support equipment requirements.
- b. Identification of current approved engineering drawings and configuration lists. These shall be required to be used for disassembly and assembly operations.
- c. The requirement that replaced hardware shall be consistent with the latest drawing revisions, and within configuration interchangeability guide allowances.
- d. The requirement that approved Engineering Change Proposals and Technical Directives shall be incorporated as directed by the CFA.
- e. The requirement that rework operations shall be fully accomplished in controlled access areas in the presence of DOP QA department personnel.

Subparagraphs shall include, but shall not be limited to, those of 5.4.3.7.1 through 5.4.3.7.1.3.

5.4.3.7.1 Fault repair criteria. Section 3 shall include a paragraph titled 'Fault repair criteria,' which shall state the following: 'Source, maintenance, and recoverability (SM&R) codes will be provided by the Government. Application of SM&R codes shall be in accordance with NAVAIRINST 4423.3B and as specified herein. Fault repair shall be performed by the repair or replacement of hardware at the level of assembly determined by the criterion that the economic cost of component repair shall not exceed 65 percent of its current replacement cost. Exception to this criterion shall be made only for those components which can no longer be procured. It is preferred that repairables be reassembled into the component from which removed when concurrent repair is used. The DOP may elect to reassemble repairables into assemblies they were not originally installed in, provided that all replacements of serialized components are recorded. Prior to assembly, all repaired or replaced components or subassemblies shall be subjected to, and shall complete, all acceptance test requirements applicable to all successive levels of assembly. All reworked subassemblies shall retain their as-received serial numbers. However, letters or characters may be appended to serial numbers when specifically authorized by the CFA.' Subparagraphs of 'Fault repair criteria' shall include, but



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shall not be limited to, those of 5.4.3.7.1.1 through 5.4.3.7.1.3.

5.4.3.7.1.1 Failure diagnosis. Section 3 shall include a paragraph titled 'Failure diagnosis' which shall require that diagnostic testing be performed within the parameters specified; and continued, as required, into subassembly levels for fault isolation. Appropriate test parameters and procedures shall be specified therein or by reference for the purpose of isolating faults to the correct level of repair.

5.4.3.7.1.2 Failure analysis. Section 3 shall include a paragraph titled 'Failure analysis' which shall require a failure analysis to be performed, as required, through the module and component level. Because failure analysis is not necessarily required on all defective end items, specific criteria shall be specified.

5.4.3.7.1.3 Level of repair. Section 3 shall include a paragraph titled 'Level of repair' which shall require disassembly of end items to be accomplished to the level of repairable, replaceable hardware.

5.4.3.8 Rework assembly examination. Section 3 shall include a paragraph titled 'Rework assembly examination' which shall require that assembly work be visually inspected for compliance with specified workmanship and drawing requirements, and that government representatives may inspect assembly work and perform quality program audits at the government's discretion if the DOP is a contractor facility.

5.4.3.9 Rework acceptance inspection. Section 3 shall include a paragraph titled 'Rework acceptance inspection.' This paragraph shall require reworked items to be subjected to previously failed examinations and tests following rework and assembly in order to verify such items perform in accordance with prescribed specifications and acceptance criteria. The DOP shall be required to be fully responsible for performing all acceptance examinations and tests, and for maintaining a QA program approved by the procuring activity. Appropriate subparagraphs shall specify applicable performance requirements, and appropriate quality conformance procedures (including diagnostic acceptance tests) and test equipment. A contractor DOP QA representative shall be required to witness rework acceptance tests, and government representatives shall be permitted to witness such tests at the government's discretion.

5.4.3.10 Additional inspection. Section 3 shall include a paragraph titled 'Additional inspection.' This paragraph

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shall require the end item to be subjected to additional examination and testing, when so directed by the procuring activity, as required to provide a further measure of demonstrable capability, overall quality, and functional reliability.

5.4.3.11 Weight and balance. Section 3 shall include a paragraph titled 'Weight and balance' which shall require a specified number of items to be tested for weight and balance using appropriate procedures and test equipment. This paragraph shall also require QA representatives to perform examinations of all reworked items and test data to ensure compliance with drawing and inspection requirements for weight and balance.

5.4.3.12 Environmental conditions. Section 3 shall include a paragraph titled 'Environmental conditions.' This paragraph shall require reworked items to be capable of performing in accordance with applicable specifications when exposed to the environmental conditions specified therein for operational and non-operational use; including storage, transit, standby, and service use conditions.

5.4.3.13 Repair completion. Section 3 shall include a paragraph titled 'Repair completion' which shall require the DOP to verify that all repair and modification orders and repair records related to the item have been completed once the reworked item has been accepted.

5.4.3.14 Repair turnaround time. Section 3 shall include a paragraph titled 'Repair turnaround time' which shall specify the required mean turnaround time for repair, from date of hardware receipt to date of hardware shipment.

5.4.3.15 Facilities. Section 3 shall include a paragraph titled 'Facilities' which shall specify facility requirements to support the depot rework program. Facility layouts that reflect area requirements, including location of test and repair areas, shall be required. Peculiar support equipment that is considered permanently stationed shall be identified on the layouts. Facility capabilities and future requirements shall be included in a matrix which identifies production, rework, test, storage, and inspection and acceptance areas.

5.4.3.16 Reliability monitoring and data collection. Section 3 shall include a paragraph titled 'Reliability monitoring and data collection' which shall require the DOP to implement a data-collection and failure-reporting program in accordance with the Naval Air Systems Command Maintenance Data Collection System Program. Each historical file shall be required to contain copies of the following data and documents, as applicable: Inspection Requirements Check List, Failure Analysis Report, system test data, inspection

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fault records, repair cards, parts replacement records, and acceptance test data. QA personnel shall be required to maintain a complete test, repair, analysis, and corrective action history file, including rework assessment test results, for each configuration item processed.

5.5 Section 4. Section 4 shall be titled 'QUALITY ASSURANCE PROVISIONS,' and shall be prepared in accordance with MIL-STD-961 and as specified herein. Section 4 shall include the examinations and tests required to verify that the contractor's performance (i.e., the quality of reworked items, services, and procedures) is in accordance with the requirements of sections 3 and 5 of the depot rework specification.

5.6 Section 5. Section 5 shall be titled 'PREPARATION FOR DELIVERY,' and shall be prepared in accordance with MIL-STD-961 and as specified herein. Section 5 shall specify the requirements for preservation, packing, packaging, handling, storing, and transporting of reworked items. Applicable documents and procedures shall be referenced therein. This paragraph shall require MIL-P-116 and MIL-STD-794 to be utilized in selecting containers, cushioning, preservation methods, and levels of protection.

5.6.1 Marking for shipment and storage. Section 5 shall require the contractor to mark all material and containers in accordance with MIL-STD-129.

5.6.2 Reusable containers. Section 5 shall require reusable containers, dunnage, and cushioning to be retained for return shipment of the repairables.

5.6.3 Selection of protection levels. Section 5 shall specify the following:

- a. Repairables shipped to the repair depot shall be preserved, packaged, and packed to level C/C for air shipment or shipment within the continental United States, and to level A/A for ocean shipment.
- b. Contractor shipments to subcontractors for repair shall be preserved, packaged, and packed to level C/C.
- c. Shipments from subcontractors to the prime contractor shall be protected to level A/A.
- d. Shipments from the contractor to the government shall be protected to level A/A.

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- e. Downgrading of protection levels shall be in accordance with MIL-STD-794, and shall require the approval of the procuring activity.

5.6.4 Storage. Section 5 shall require that a favorable covered warehouse environment shall be provided to prevent parts damage and extend container service life for repairable items awaiting repair, and for Code "A" assets awaiting shipment.

5.6.5 Hazardous material. Section 5 shall require that material classified as hazardous by the Department of Transportation and Department of Defense shall be packaged, marked, and labeled in accordance with applicable provisions of Title 49, Code of Federal Regulations (NAVSUP PUB 505) and international regulations, as required, to comply with interstate and international movement of such material.

5.7 Section 6. Section 6 shall be titled "NOTES," and shall be prepared in accordance with MIL-STD-961 and as specified herein. Section 6 shall contain information of a general or explanatory nature, and no requirements shall appear therein.

5.7.1 Intended use. Section 6 shall include a paragraph titled "Intended use" which shall explain that the requirements specified in the depot rework specification are intended for planning and guidance relative to depot level maintenance of the hardware covered by the specification.

5.7.2 Ordering data. The specification shall not require the contractor to generate data items. Data generation requirements are reserved for the CDRL only. Data which is to be generated by the contractor and either furnished to the government or made available to the government shall only be listed in section 6. As a minimum, the following types of data or specific data items shall be included in this list:

- a. Data items required for program management, quality assurance failure reporting, and parts replacement. Documents and forms used during the rework process should have an identifier indicating field returned hardware.
- b. Trouble, Failure, and Disposition Report
- c. Rework Cost Data Report
- d. Configuration Data List
- e. Test Set Usage Summary Report
- f. Parts Replacement Summary Report

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- g. Hardware Status Summary Report
- h. Spare and Repair Parts Inventory and Usage Report
- i. Test Data Report: Used to document the nature and results of all examinations and tests. Test data may be in printed or graphic format, or on magnetic media.
- j. Inspection Requirements Check List: Prepared in conjunction with the receiving process to document the as-received status and condition of defective items, including shipping discrepancies.
- k. Inspection Check List: Prepared in conjunction with the disassembly, repair, and assembly process to document the acceptance or rejection of rework at specified inspection check or hold points in the process.
- l. Property Receiving Report: Prepared in conjunction with the receiving process. The report is generated and distributed by the QA department to notify appropriate departments of the receipt of hardware.
- m. Receipt inspection data: Prepared in conjunction with the receiving process, and recorded on appropriate forms in accordance with MIL-Q-9858.
- n. Repair/modification orders and planning data: Prepared in conjunction with the disassembly, repair, and assembly process.
- o. Diagnostic test data: Prepared in conjunction with the failure diagnosis process, and recorded in accordance with MIL-Q-9858.
- p. Teardown Deficiency Report: Prepared in conjunction with the failure analysis process by DOP QA personnel prior to rework of the end item. Provides a description of deficiencies detected during disassembly and inspection.
- q. Material Log: All repair/modification orders should be accompanied by material logs on which is recorded the serial numbers of serialized components of the end item. The serial numbers of all listed components removed during the current rework should be recorded.

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- r. Repair Reports: Prepared in conjunction with the reliability monitoring and data collection process. Should be prepared and routed through the responsible DOP groups and provided, as required, to the procuring activity.
- s. QA Inspection Log: Prepared in conjunction with rework inspection and used to log QA inspection results.
- t. Material Review Board Procedures: Should be in accordance with DLAH 8200.1, Change 3; and MIL-Q-9858.
- u. Maintenance Process Standard: Class I standards should be prepared by the DOP for all maintenance procedures.
- v. Accountable stock control records: Prepared in conjunction with spare parts support. Delivered materials should be documented on accountable stock control records which reflect stock balances. Accountable stock control records should be prepared in accordance with the Defense Acquisition Regulations (DAR).
- w. Inventory records: Prepared in conjunction with the storage process. Inventory records of in-house material (Code 'A' and Code 'F' or Code 'G') should be strictly maintained.
- x. Transportability Reports: Prepared in conjunction with transportability requirements. Should be prepared for items that are oversize, hazardous, or fragile; and should include handling instructions.

5.7.3 Data acquisition and reporting. Section 6 shall include a paragraph titled 'Data acquisition and reporting' which shall describe data acquisition and reporting needs. As a minimum, this paragraph shall state that material data requirements to be reported should be in accordance with the Naval Air Systems Command Maintenance Data Collection System maintained by the Air Weapons Department, Naval Weapon Station, Seal Beach, Corona site. Examples of such data items include: Trouble, Failure, and Disposition Report; Rework Cost Data Report; Configuration Data List; Test Set Usage Summary Report; Parts Replacement Summary Report; Hardware Status Summary Report; Test Data Report; Spare and Repair Parts Inventory; and Usage Report. Serial numbered item reporting of repair actions should be included in technical repair data.

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## 6. NOTES

6.1 Intended use. Specifications conforming to the requirements of this standard are intended for use as military standardization documents and are listed in the DoDISS. The purpose of this standard is to standardize the preparation of depot rework specifications covering depot rework of air-launched weapons, ordnance, missile launchers, and peculiar ground support equipment; to ensure inclusion of essential data and descriptions necessary to the selection and application of items and processes; and to aid in the use and analysis of Department of Defense standardization documents.

6.2 Subject term (key word) listing.

Configuration  
Configuration control  
Contractor-furnished repair parts  
Depot level repair  
Depot level repairable  
Designated overhaul point  
Failure  
Failure analysis  
Failure diagnosis  
Fault repair criteria  
Government-furnished repair parts  
Hardware  
Hardware rework flow  
Incoming functional test  
Inventory control point  
Inventory manager  
Level of repair  
Material review board  
Overhaul  
Receiving  
Rejected repair parts  
Reliability monitoring  
Repair  
Repair parts  
Repair parts accountability

Preparing Activity:  
Navy - AS  
(Project SDMP-008)

**STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL***(See Instructions - Reverse Side)***1. DOCUMENT NUMBER**  
MIL-STD-2177(AS)**2. DOCUMENT TITLE** DEPOT REQUEST SPECIFICATION, AIR-LAUNCHED WEAPONS,  
ARMAMENT, ORDNANCE, MISSILE LAUNCHERS, & PECULIAR SUPPORT EQUIP.**3a. NAME OF SUBMITTING ORGANIZATION****4. TYPE OF ORGANIZATION (Mark one)**☐ **VENDOR**☐ **USER**☐ **MANUFACTURER**☐ **OTHER (Specify):** ..**b. ADDRESS (Street, City, State, ZIP Code)****5. PROBLEM AREAS****a. Paragraph Number and Wording:****b. Recommended Wording:****c. Reason/Rationale for Recommendation:****6. REMARKS****7a. NAME OF SUBMITTER (Last, First, MI) - Optional****b. WORK TELEPHONE NUMBER (Include Area Code) - Optional****c. MAILING ADDRESS (Street, City, State, ZIP Code) - Optional****8. DATE OF SUBMISSION (YYMMDD)****DD FORM 1426**  
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**INSTRUCTIONS:** In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge (*DO NOT STAPLE*), mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

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