

INCH-POUND

MIL-E-17555H
 AMENDMENT 2
2 November 1992
 SUPERSEDING
 INTERM AMENDMENT 1(CR)
 14 July 1987

MILITARY SPECIFICATION

ELECTRONIC AND ELECTRICAL EQUIPMENT, ACCESSORIES, AND
 PROVISIONED ITEMS (REPAIR PARTS): PACKAGING OF

This amendment forms a part of MIL-E-17555H, dated 15 November 1984, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 1

- * 2.1.1, SPECIFICATIONS FEDERAL: Add as new specifications:

"A-A-440 - Cushioning Material, Plastic, Open Cell (For Packaging Applications).
 A-A-1894 - Paper, Kraft, Treated (Fire Resistant).
 J-W-1177 - Wire, Magnet, Electrical, General Specification.
 PPP-B-140 - Batteries, Storage, Industrial, Automotive and Navy Portable (Except Aircraft); Packaging of."

- * Delete the following specifications:

"PPP-B-566 PPP-B-585
 PPP-B-576 PPP-B-587".

PAGE 2

- * 2.1.1, SPECIFICATIONS FEDERAL: Delete the following specifications:

"PPP-B-591 PPP-B-621
 PPP-B-601 PPP-C-96".

- * 2.1.1, SPECIFICATIONS MILITARY: Delete "MIL-R-196" in its entirety and substitute "MIL-S-196 - Support Items, Accessories, and Kits, Mechanical; Packaging of." Delete "MIL-P-775" in its entirety and substitute "MIL-H-775 - Hose, Hose Assemblies; Rubber, Plastic, Fabric or Metal (Including Tubing), and Associated Hardware; Packaging of." Delete "MIL-B-208" in its entirety.

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PAGE 3

* 2.1.1, SPECIFICATIONS MILITARY: Delete the following specifications:

"MIL-C-3774 MIL-C-11133 MIL-R-17207
MIL-C-9897 MIL-B-15237"

* Delete "MIL-C-3184" and substitute "MIL-M-3184 - Machinery; Deck and Vehicle Mounted with Associated Equipment and Provisioned (Repair Parts) Items; Packaging of."

* Add as new specification:

"MIL-L-19140 - Lumber and Plywood, Fire-Retardant Treated."

PAGE 4

* 2.1.1, SPECIFICATIONS MILITARY: Delete the following specifications:

"MIL-B-26195" and "MIL-C-52950."

* Change "MIL-C-55110" to "MIL-P-55110".

* Add as new specification:

"MIL-E-55585 - Electronics Equipment and Parts, Packaging of.
MIL-V-62038 - Vehicles, Wheeled; Preparation for Shipment and
Storage of."

* Delete "Free" and substitute "Protective" in the title to MIL-B-81705.

* Add as new specification:

"MIL-F-83671 - Foam-In-Place Packaging Materials, General Specifi-
cation for."

* 2.1.1, STANDARDS FEDERAL: Delete "FED-STD-313" in its entirety and substitute "FED-STD-313 - Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities."

* 2.1.1, STANDARDS MILITARY: Delete "DOD-STD-1686" and substitute "MIL-STD-1686"; add "(Metric)" to the title.

* Delete "MIL-STD-281 and MIL-STD-147" in their entirety.

* Add as new standard:

"MIL-STD-2073-1 - DOD Materiel Procedures for Development and
Application of Packaging Requirements."

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- * 2.1.1, STANDARDS MILITARY: Add as new standard:
"MS90376 - Caps, Dust, Plastic, Electric Connectors."
- * 2.1.1, HANDBOOKS MILITARY: Add as new handbook:
"MIL-HDBK-773 - Electronic Discharge Protective Packaging."
- * 2.2, ANSI: Delete "C83.66" in its entirety.

PAGE 6

- * 2.2, Other Publications: Add "D 4727 - Standard Specification for Corrugated and Solid Fiberboard Sheet Stock (Container Grade) and Cut Shapes."
- * 2.2, following ASTM parenthetical: Add as new publication:
"ELECTRONIC INDUSTRIES ASSOCIATION (EIA)
383 - Preparation for Delivery of Electrical and Electronic Components.

(Application for copies should be addressed to the Electronic Industries Association, Engineering Department, 2001 Pennsylvania Avenue, NW Washington, DC 20006.)"

PAGE 7

- * 3.3.4, last sentence: Delete and substitute:
"When specified (see 6.2.1), and herein (see 3.9.1.1.1 for Navy), materials selected for cushioning and wrapping shall have properties (characteristics) resistant to fire."

PAGE 8

- * 3.5.4: Delete and substitute:
"3.5.4 Material safety data sheet (MSDS). For items containing hazardous material, the contracting activity shall be provided a material safety data sheet at the time of contract award. The MSDS shall be provided in accordance with the requirements of FED-STD-313. The MSDS shall be included with each shipment of the material covered by this specification (see 6.4.1)."
- * 3.6: Delete and substitute:
"3.6 Sensitive electronic items. Packaging of items adversely affected by electromagnetic, electrostatic, magnetic or radio-active field forces shall be in accordance with 3.11.10. Package marking of these items shall be in accordance with 3.12.2.5. The requirements for implementation of an electrostatic discharge

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(ESD) control program are contained in MIL-STD-1686. Guidance for implementation of MIL-STD-1686 is contained in DOD-HDBK-263. Additional guidance for ESD protective packaging is contained in MIL-HDBK-773."

PAGE 11

- * Table I, Column 1: Delete "Bathythermograph" in its entirety. Under "Battery Storage", column 4, delete "MIL-B-208" and substitute "PPP-B-140".

PAGE 12

- * Table I: Delete "Brush assembly, carbon IC" and substitute "Brush, brush assembly carbon IA". After "Cable, Cord or Wire Assemblies" add "Call Signal in column 1, Stations, IC, in column 2, none, in column 3, and ----" in column 4.

PAGE 16

- * Table I, "Disk: nonferrous", column 4: Add "See note 2".

PAGE 19

- * Table I, following "Generator: signal": Add the following new lines:
"smoke.... II None ----" and
"Glassware; navigational signal warning.... ---- ---- See "Lens"".

PAGE 20

- * Table I: Delete "Jewel Assembly" in its entirety.

PAGE 21

- * Table I, "Mechanical repair parts", column 4: Delete "MIL-R-196" and substitute "MIL-S-196".

PAGE 22

- * Table I: Delete "Monitor equipment, temperature" and substitute "Monitor equipment, temperature, noise".

PAGE 23

- * Table I, "Parts, repair/mechanical", column 4: Delete "MIL-R-196" and substitute "MIL-S-196".

PAGE 25

- * Table I, "Repair parts, mechanical", column 4: Delete "MIL-R-196" and substitute "MIL-S-196".

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- * Table I, following "Transducer": Add as new line:

"differential pressure III None ----".

PAGE 30

- * Table I, following "Window ... light, sonar": Add as new line:

"Wire, magnet, electrical ---- ---- Use J-W-1177".

PAGE 31

- * Table I, note 3: Delete and substitute:

"3. For Navy, IA-8 shall apply and shall be accomplished by use of a bag conforming to MIL-B-117, type I, class E, style 2. Each brush or brush assembly shall be wrapped with cushioning materials conforming to PPP-C-795, class 3."

PAGE 32

- * 3.9.1.1.1 Delete "PPP-F-320", substitute "ASTM D 4727" column 3: add "see 3.10.2.5."

- * 3.9.1.1.1, following ASTM D 4727: Add as new line:

"A-A-440 - Cushioning Material, Plastic, Open Cell (For Packaging Applications)".

- * 3.9.1.1.1, PPP-C-1120, column 3: Delete "type III or IV, class C" and substitute "class A, grade 1, type optional".

- * 3.9.1.1.1, following PPP-C-1842: Add as new line:

"A-A-1894 - Paper, Kraft Treated (Fire Resistant)".

3.9.1.1.1, MIL-R-5001, column 3: Add "For Navy, use grade A".

- * 3.9.1.1.1, following MIL-F-81334: Add the following new line:

"MIL-F-83671 - Foam-In-Place Packaging Materials: General Specification For".

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- * 3.9.1.1.4 and 3.9.1.1.4.1: Delete and substitute:

"3.9.1.1.4 Interior containers. Unless otherwise specified (see 6.2.1), selection of interior (unit and intermediate) containers, except those as specified in MIL-P-116 for the applicable method or sub-method of preservation, shall conform to the unit and intermediate interior container table in the applicable appendix of MIL-STD-2073-1. Unless otherwise specified (see 6.2.1), interior container selection shall be at the contractor's option. Paperboard and fiberboard boxes shall be of the weather-resistant type, class or grade.

3.9.1.1.4.1 Closure. Closure and sealing of interior containers shall be in accordance with the applicable container specification or appendix thereto and as specified herein. Weather-resistant fiberboard boxes shall be closed and sealed in accordance with method V. Bags may be used as unit packs for small parts under method III. When practical, bag closure shall be by heat sealing, adhesives, solvents or taping. Staples shall not be used. Other type bag closure's such as pressure-fit and zipper are acceptable under Method III, provided, that loss of contents will not result."

PAGE 36

- * 3.9.1.1.4.2: Delete and substitute:

"3.9.1.1.4.2 Quantity and weight. When item(s) exceed the weight limitation of the unit pack, the item(s) shall be packed directly in exterior shipping containers for the degree of packing specified, (see 3.10.1). Intermediate packs shall contain equal quantities in multiples of five, not exceeding 100 unit packs within the weight limitations specified herein. The gross weight of intermediate paperboard boxes shall not exceed 10 pounds. Unless otherwise specified (see 6.2.1), the gross weight of intermediate fiberboard boxes shall not exceed 40 pounds."

PAGE 38

- * 3.9.1.3, last sentence: Delete and substitute:

"Interior containers (see 3.9.1.1.4), shall be as follows:

- (a) Paperboard boxes shall be of the domestic or non-weather resistant type, class or variety as applicable and,
- (b) Fiberboard boxes shall be of the class-domestic or class-domestic/fire-retardant material (see 3.10.2.5). Box closure shall be in accordance with Method I using pressure-sensitive adhesive tape."

- * 3.9.1.4: Delete "ANSI C83.66" and substitute "EIA 383".

- * 3.10: Add the following sentence:

"Unless otherwise specified (see 6.2.1), for Army Electronics Command, packing shall be in accordance with MIL-E-55585."

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* Add as new paragraph 3.10.2.5:

* 3.10.2.5 Navy fire-retardant requirements:

- (a) Lumber and plywood. Lumber and plywood including laminated veneer materials used in shipping container and pallet construction members, blocking, bracing and reinforcing members shall be fire-retardant material conforming to MIL-L-19140 as follows:

Levels A and B - Type II - weather resistant.
Category 1 - general use.

Level C - Type I - non weather resistant.
Category 1 - general use.

- (b) Fiberboard. Fiberboard used in the construction of interior (unit and intermediate) and exterior fiberboard boxes including interior packaging forms (see 3.9.1.1.1), shall conform to the class-domestic/fire retardant or class weather resistant/fire retardant material requirements as specified (see 6.2.1) of ASTM D 4727."

* 3.10.3: Delete and substitute:

"3.10.3 Levels A, B, and C containers. Material preserved as specified (see 3.9.1), shall be packed in exterior shipping containers for the level of packing specified (see 3.10.1), in accordance with the exterior shipping container table in the applicable appendix of MIL-STD-2073-1 and herein. Unless otherwise specified (see 6.2.1), container selection shall be at the contractors option."

PAGE 41

* 3.10.3.1: Delete and substitute:

"3.10.3.1 Caseliners, closure, and gross weight."

* Add as new paragraphs 3.10.3.1.1 through 3.10.3.1.3:

"3.10.3.1.1 Caseliners. Unless otherwise specified (see 6.2.1), Level A shipping containers containing items preserved level C or commercial shall be provided with waterproof caseliners in accordance with 3.10.2.4 herein. Shipping containers when packed with products meeting the following requirements, shall not require caseliners.

- (a) Items which are completely painted and have no unprotected critical surfaces.
- (b) Large items which are completely coated with a corrosion resistant paint or preservative type P-1 or P-19 with critical surfaces, if any, on the interior of the item, and where the critical surfaces are preserved and all openings are sealed.
- (c) Method IC and IA unit packs.

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- (d) Method II packs when all materials exterior to the water-vapor-barrier have water resistance equal to or exceeding the water resistance of PPP-B-636 fiberboard boxes.
- (e) Intermediate packs (or unit packs when no intermediate packs are required) for which the container conforms to the weather-resistant class of PPP-B-636, and such are closed and waterproofed as specified herein.

3.10.3.1.2 Closure. Container closure, reinforcing, or banding shall be in accordance with the applicable container specification or appendix thereto, except that weather-resistant fiberboard boxes shall be closed in accordance with method V and reinforced with non-metallic or tape banding and domestic or fire-retardant fiberboard boxes shall be closed in accordance with method I using pressure sensitive tape.

3.10.3.1.3 Weight. Wood, plywood, and cleated type containers exceeding 200 pounds gross weight shall be modified by the addition of skids in accordance with the applicable container specification or appendix thereto. In the absence of skid directions in a given container specification, two nominal wood skids, 3 by 4 inches shall be applied to the base of the container, laid flat and perpendicular to the length of the container. Containers exceeding 36 inches in length shall require additional skids."

* 3.10.4: Delete.

PAGE 42

* 3.10.4.1 through 3.10.5: Delete.

PAGE 43

* 3.11.4.2.1, line 3, delete "MIL-STD-281" and substitute "MIL-V-62038."

* 3.10.6: Delete "ANSI C83.66" and substitute "EIA 383".

PAGE 45

* 3.11.10: Delete "(see 3.6)" and substitute "(see 3.6 and 6.6)."

* 3.11.10.1, second sentence: Add "(see 3.11.10.4)."

PAGE 46

* 3.11.10.4: Delete and substitute:

"3.11.10.4 Electrostatic protection. Items which may be or are adversely affected by electrostatic discharge or electrostatic field forces, shall be provided an initial wrap of material conforming to MIL-B-81705 type II or III, or be cushioned in material conforming to PPP-C-795, class 2; PPP-C-1842, type III, style A or B; PPP-C-1752, type VII, class 1, grade B; or PPP-C-1797, type II. Alternatively recloseable cushioned pouches conforming to MIL-P-81997 type I or II may be used in lieu of the initial wrap or cushioning. The item and it's initial

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wrap, cushioning or pouch shall then be unit packed in heat-sealed bags conforming to MIL-B-117, type I, class F, style 1. When specified (see 6.2.1), protective caps in accordance with MS90376 material, type B, shall be applied to all external terminals of sub-assemblies, assemblies and equipment."

PAGE 47

- * 3.11.10.5, last sentence: Delete and substitute:

"When MIL-B-117, type I or II, class E, style 1 bags are selected, the item shall be provided an initial wrap or cushioning (see 3.9.1.1.1) and the barrier material shall contain a laminate of aluminum foil as well as meeting the requirements of MIL-B-117."

- * 3.12.1, line 7: Delete "ANSI C83.66" and substitute "EIA 383".

PAGE 48

- * Add as new paragraph 3.12.2.6:

"3.12.2.6 Critical close tolerance equipment. Unit packs, shipping containers and unpacked shipments of noise tested equipment shall be marked with the following:

"CRITICAL, CLOSE TOLERANCE
OPERATING EQUIPMENT
HANDLE WITH EXTREME CARE
DO NOT DROP OR SUBJECT
TO SHOCKS OR JARS"

Markings shall be stencilled, red color, and applied on two sides and both ends of the container or shipment. Letters shall be a minimum of 1-1/2 inches high, except for small containers with insufficient space, in which case letters shall be of such size as to be legible. In addition, arrows and the word "UP", center of balance, sling or lifting point markings as specified in 3.12.2.4 shall apply."

PAGE 51

- * 6.2.1, following line (a): Add as new line (aa):

"(aa) Navy fire-retardant requirements (see 3.3.4 and 3.10.2.5(b))."

- * 6.2.1, line (i): Delete and substitute:

"(i) When container selection is other than as specified or other than contractor's option (see 3.9.1.1.4 and 3.10.3)."

- * 6.2.1, following line (q): Add as new line (qq):

"(qq) When packing for Army Electronics Command is other than as specified (see 3.10)."

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- * 6.2.1, line (r): Delete "3.10.4 and 3.10.5".
- * 6.2.1, line (s): Delete "3.10.3.1 and 3.10.4.1" and substitute "3.10.3.1.1".
- * 6.2.1, following line (w): Add as new line (ww):
 "(ww) When protective caps are required (see 3.11.10.4)."

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- * 6.2.2, line 3.5.2: Delete and substitute:
 "3.5.2 Preservation and packing data DI-PACK-80120 ----".

PAGE 54

Add as new paragraph 6.4.1:

6.4.1 Materials Safety Data Sheets. For items containing hazardous material, contracting officers will identify those activities requiring copies of completed Material Safety Data Sheets prepared in accordance with FED-STD-313. The pertinent Government mailing addresses for submission of data are listed in FED-STD-313.

PAGE 55/56

- * After "MILITARY Standardization Handbook", add the following:
 "MIL-HDBK-773 - Electrostatic Discharge Protective Packaging."

PAGE 60

- * Table II, Optical glass, column 7: Delete "moisutre" and substitute "moisture".

PAGE 68

- * Index, following "Carrier": Add as new lines:
 "3.10.3.1.1 Caseliners 41.
 3.10.3.1 Caseliners, closure, and gross weight 41".

- * Index, following "Clearance": Delete:
 "3.10.3.1, Closure, caseliners, and
 3.10.4.1 Gross weight 41, 42",
 and substitute:
 "3.9.1.1.4.1, closure 35, 41
 3.10.3.1.2".

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* Index, following "Containers - shielding requirements": Add as new line:

"3.12.2.6 Critical close tolerance equipment 48".

* Index, "Definitions": Delete "52" and substitute "53".

* Index, following "Electrostatic protection": Add as new line:

"3.10.2.5(b) Fiberboard 40".

PAGE 69

* Index: Delete:

"3.9.1.1.4.2 Intermediate containers 36".

* Index, "Level B": Delete "3.10.4" and "41" and substitute "3.10.3" and "40".

* Index, following "Levels A, B and C": Add as new line:

"3.10.3 Levels A, B and C containers 40".

* Index, following "Minimum protection": Add as new line:

"3.10.2.5 Navy fire-retardant requirements 40".

PAGE 70

* Index, following "Provisioned items": Add as new lines:

"3.9.1.1.4.2, Quantity and weight 36, 42
3.10.3.1.3".

* Index, following "Transparent unit protection": Delete:

"3.9.1.1.4.1 Unit containers 35"

and add as new line:

"3.10.2.5(a) Treated lumber and plywood 40".

* Index, following "Unpacking instructions": Add as new lines:

"3.9.1.1.4.2, Weight 36, 42
3.10.3.1.3".

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Note: The margins of this amendment are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based upon the entire content irrespective of the marginal notations and relationship to the last previous amendment.

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