

MIL-C-44083A
25 April 1985
SUPERSEDING
MIL-C-44083(GL)
10 June 1982

MILITARY SPECIFICATION

CARRIER, AN/PRC-68 OR AN/PRC-68A, RADIO SET

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This document covers a radio set carrier, fabricated from nylon fabric, webbing and tape.

2. APPLICABLE DOCUMENTS

2.1 Government documents. Unless otherwise specified, the following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this document to the extent specified herein.

SPECIFICATIONS

FEDERAL

UU-P-268	- Paper, Kraft, Wrapping
PPP-B-636	- Boxes, Shipping Fiberboard
DDD-L-20	- Label; For Clothing, Equipage, and Tentage, (General Use)

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: US Army Natick Research and Development Center, Natick, MA 01760-5014 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 8465

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STANDARDS

MILITARY

- MIL-STD-105 - Sampling Procedures and Tables for Inspection
by Attributes
- MIL-STD-129 - Marking for Shipment and Storage
- MIL-STD-147 - Palletized Unit Loads

DRAWINGS

US ARMY NATICK RESEARCH AND DEVELOPMENT CENTER

- 2-2-421 - Carrier, AN/PRC-68 Radio Set - Sheet 1
- 2-2-421 - Carrier, AN/PRC-68 Radio Set - Sheet 2

(Copies of documents required by manufacturers in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting officer.)

2.2 Other publications. Unless otherwise specified, the following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this document to the extent specified herein.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- D 3951 - Standard Practice for Commercial Packaging

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

(Technical society and technical association documents are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.)

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

3. REQUIREMENTS

3.1 Guide sample. Samples, when furnished, are solely for guidance and information to the contractor (see 6.3). Variations from this document may appear in the sample in which case this document shall govern.

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3.2 First article. When specified, a sample shall be subjected to first article inspection (see 4.3, 6.2 and 6.4).

3.3 Materials and components. Materials (see 6.6 and 6.7) and components shall be as specified on Drawing 2-2-421, sheet 1.

3.4 Construction. The construction shall conform in all respects to the drawings listed in 2.1 and shall be as specified herein.

3.4.1 Stitching. All stitching shall be as specified on Drawing 2-2-421, sheet 1 and as specified herein.

3.4.1.1 Thread tension. Thread tension shall be maintained so that there will be no loose stitching resulting in loose bobbin or top thread, or excessively tight stitching resulting in puckering of the materials sewn. The lock shall be embedded in the materials sewn.

3.4.1.2 Repairs of type 301 stitching. Repairs of type 301 stitching shall be as follows:

a. When thread breaks or bobbin run-outs occur during sewing, the stitching shall be repaired by restarting the stitching a minimum of 1/2 inch back of the end of the stitching.

b. Thread breaks, two or more consecutive skipped or runoff stitches noted during inspection of the item (in-process or end item) shall be repaired by overstitching. The stitching shall start a minimum of 1/2 inch in back of the defective area, continue over the defective area and continue a minimum of 1/2 inch beyond the defective area onto the existing stitching. Loose or excessively tight stitching shall be repaired by removing the defective stitching, without damaging the materials, and restitching in the required manner. 1/

1/ When making the above repairs the ends of the stitching are not required to be backstitched.

3.4.1.3 Bartacks. Bartacks shall be as specified on the drawings and as follows:

Length, \pm 1/16	Width, \pm 1/32	Stitches per bartack
1/2 inch	1/8 inch	28
3/4 inch	1/8 inch	42

Bartacks shall be free from thread breaks and loose stitching.

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3.4.1.4 Automatic stitching. Automatic machines may be used to perform any of the required stitch patterns provided the requirements for the stitch pattern, stitches per inch, size and type of thread are met, and at least three or more tying, overlapping or back stitches are used to secure the ends of the stitching.

3.4.1.5 Thread ends. All thread ends shall be trimmed to a length of not more than 1/4 inch.

3.4.2 Setting of eyelets. Holes shall be prepunched to receive the eyelets. Holes prepunched to receive the eyelets shall be smaller than the outside diameter of the eyelet barrel so that the barrel must be forced through the hole.

3.4.2.1 Eyelets, with washer. The eyelets with washers attached at the top edge of the carrier shall be installed with the washer on the inside of the carrier and securely clinched in a manner that will prevent detachment from or cutting of the adjacent material. The eyelets shall be clinched without splitting.

3.4.2.2 Eyelet, without washer. The eyelet without washer attached at the bottom of the carrier shall be installed using score setting dies conforming to J.C. Rhodes, part number 1-KW-1KL and 10LY-Klom or Stimpson Co. part number A2744-7 or equal (see 6.5). The eyelet shall be securely set in a manner that will prevent detachment from, or cutting of, the adjacent material. The clinched portion of the eyelet shall be on the inside of the carrier.

3.4.3 Setting of grommets. Holes shall be prepunched to receive the grommets. Holes prepunched to receive the grommets shall be smaller than the outside diameter of the grommet barrel so that the barrel must be forced through the hole. The grommet shall be securely clinched without cutting the adjacent material.

3.4.4 Setting of snap fasteners. A hole shall be prepunched to receive the button and eyelet components of the snap fasteners. The hole shall be smaller than the outside diameter of the button and eyelet barrels so that the barrel must be forced through the hole. The hole shall not be punched in the setting operation with the button or eyelet barrel. The fasteners shall be securely clinched without cutting the adjacent materials and no more than three splits shall occur in the button or eyelet barrels.

3.4.5 Fusing of ends of nylon webbing. Where specified on the drawings the ends of the nylon webbing shall be fused. The apparatus used to fuse the webbing ends shall be capable of providing sufficient heat to provide a smooth edge. The cut ends of the webbing yarns shall be fused together. Fusing of the webbing ends shall be accomplished prior to being assembled for stitching.

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3.4.6 Patterns. A majority of the textile components are covered by patterns which are drawn full scale on Drawing 2-2-421, sheet 2. The patterns provide allowances for all seams and shall be used for making working patterns. The patterns shall not be altered in any way.

3.4.7 Cutting of components. Components covered by a pattern shall be cut within $-0, + 1/8$ inch of the applicable pattern.

3.5 Marking. The identification marking shall be applied in the location shown on the applicable drawing and shall conform to type IV, class 5 of DDD-L-20. The letters "US" shall be applied in the size characters and in the location indicated on the applicable drawing and shall conform to type IV, class 9 of DDD-L-20. Fastness of class 9 marking shall be as specified for class 5 markings.

3.5.1 Location marks. Location marks shall not be drilled except for locating snap fasteners, eyelets and grommets. Printed markings for component location shall not be more than $1/32$ inch wide.

3.6 Repairs. Repairs such as mends, darns, patches or splices are not permitted on the carrier.

3.7 Replacement of defective components. During the spreading, cutting and manufacturing process, components having material defects or damages that are classified as defects in 4.4.3, shall be removed from production and replaced with nondefective and properly matched components.

3.8 Workmanship. The finished and assembled carrier shall conform to the quality of product established by this document. The occurrence of defects shall not exceed the applicable acceptable quality levels.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the document where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

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4.2 Classification of inspection. The inspection requirements specified herein are classified as follows:

- a. First article inspection (see 4.3).
- b. Quality conformance inspection (see 4.4).

4.3 First article inspection. When a first article is required (see 6.2), it shall be examined for defects specified in 4.4.3, 4.4.4 and 4.4.5. The presence of any defect shall be cause for rejection of the first article.

4.4 Quality conformance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

4.4.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected in accordance with all requirements of referenced documents unless otherwise excluded, amended, modified, or qualified in this document or applicable purchase document.

4.4.2 In-process inspection. Inspection shall be made at any point or during any phase of the manufacturing process to determine whether cut lengths, cut parts, markings for location of components, and location of assembled component parts are in accordance with specified requirements. In addition, inspection shall be made to assure that the working patterns conform to the Government patterns in all respects and that the prepunched holes for receiving eyelets, grommets and snap fasteners are as specified in 3.4.2, 3.4.3 and 3.4.4. Whenever nonconformance is noted, corrections shall be made to the parts affected and lot in process. Parts which cannot be corrected shall be removed from production.

4.4.3 End item visual examination. The end item shall be examined for the defects listed in table I. The lot size shall be expressed in units of carriers. The sample unit shall be one carrier. The inspection level shall be II and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 2.5 for major defects and 10.0 for total (major and minor combined) defects,

TABLE I. End item visual defects

Examine	Defect	Classification	
		Major	Minor
Fabric	Hole, cut, tear, smash, broken or missing yarn, or open place clearly visible at normal inspection distance (approximately 3 feet)	X	

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TABLE I. End item visual defects (cont'd)

Examine	Defect	Classification	
		Major	Minor
Tape and webbing	Not firmly and tightly woven; edges frayed or scalloped	X	
	Multiple floats		X
	Any cut, hole, tear, or smash	X	
	Abrasion mark, slub, or broken end or pick		X
	Ends of webbing not fused as specified (where required)		X
Fastener tape	Any cut, hole, or tear	X	
	Hooks crushed, broken, or missing impairing function		X
Hardware (general)	Broken or malformed failing to serve intended purpose, corroded area, burr, or sharp edge	X	
	Finish omitted, partially omitted or not as specified		
	- On brass or aluminum components		X
	- On steel components	X	
	Not assembled as specified (unless otherwise classified herein)	X	
Eyelet with washer	Not specified type, size, or style	X	
	Clinched excessively tight, cutting adjacent material	X	
	Insecurely clinched to a degree that eyelet may be detached from material	X	
	Loosely clinched, permitting eyelet to rotate freely within the hole		X
	Washer omitted	X	
Eyelet without washer	Insecurely clinched or clinched excessively tight, cutting fabric	X	
	Installed with scored side on outside of carrier		X
	Not set with a scored setting		X

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TABLE I. End item visual defects (cont'd)

Examine	Defect	Classification	
		Major	Minor
Keeper, slide	Slide component of keeper jams in open, partly closed, or closed position	X	
	NOTE: Check operation of keeper(s) by fully opening and closing		
	Not inserted through channels in webbing hanger as indicated on drawing		X
Snap fastener	Fastener not functioning properly, i.e., fails to snap closed, to provide a secure closure, or to open freely	X	
	NOTE: The fastener shall be snapped and unsnapped twice to determine whether parts of fastener separate freely and also effect a secure closure.		
	Clinched excessively tight, cutting adjacent material	X	
	Clinched loosely, permitting any component to rotate freely but not to the degree that any component can be expected to become detached during use		X
	Clinched loosely to the degree that components can be expected to become detached during use	X	
	NOTE: Incomplete roll of end of button eyelet barrel is evidence of improper and insecure clinching.		
	Incorrect style	X	
	More than three splits in eyelet or button barrel		X

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TABLE I. End item visual defects (cont'd)

Examine	Defect	Classification	
		Major	Minor
Open seam	1/2 inch or less		X
	More than 1/2 inch	X	
	NOTE: A seam shall be classified as open when one or more stitches joining a seam are broken, or when two or more consecutive skipped or runoff stitches occur.		
Raw edge (on edge required to be finished)	More than 1/2 inch in length when securely caught in stitching	X	
	NOTE: Raw edge not securely caught in stitching shall be classified as an open seam.		
Runoff	See open seam		
Seam and stitch type	Wrong seam or stitch type	X	
Bartacks	One or more bartacks omitted	X	
	Any bartack not as specified or not in specified location		X
	Loose stitching, incomplete or broken stitching		X
Stitch tension	Loose resulting in a loose bobbin or top thread		X
	Excessively tight resulting in puckering of material		X
Stitch per inch	One stitch less than minimum specified		X
	Two or more stitches less than minimum specified	X	
	One or more stitches in excess of maximum specified		X
	NOTE: Variation in the number of stitches per inch caused by the operator speeding up the machine and pulling the materials in order to sew over heavy places or heavy seams, or in turning corners shall be classified as follows:		

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TABLE I. End item visual defects (cont'd)

Examine	Defect	Classification	
		Major	Minor
Stitches per inch (cont'd)	(a) Within the minor defect classification - no defect (b) Within the major defect classification - minor defect		
Thread breaks, skipped stitches, or runoffs	Not overstitched as specified NOTE: Thread breaks or two or more consecutive skipped or runoff stitches not overstitched shall be classified as open seams.		X
Ends of stitching	Not secured as specified		X
Rows of stitching	Any row missing except on hanger webbing On hanger webbing stitch patterns: (applicable each pattern) - One row of stitching omitted - Two or more rows of stitching omitted	X X	 X
Component and assembly	Any component part omitted or not as specified or any required operation omitted (unless otherwise classified herein) Needle chews Any mend, darn, patch, or splice Sling omitted	 X X X X	
Binding	Loosely applied but not exposing raw edge of material Loosely applied exposing raw edge of material	 X	 X
Marking	Omitted, illegible, incorrect, or misplaced		X
Location markings	Drilled Printed marking more than 1/32 inch in width	X	 X
Cleanness	Any spot or stain clearly noticeable		X
Thread ends	Not trimmed to 1/4 inch maximum length		X

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4.4.4 Fit examination. The end item shall be examined for the defects listed below. The lot size shall be expressed in units of carriers, the sample unit shall be one carrier. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

<u>Examine</u>	<u>Defect</u>
Fit of radio into carrier and closure of strap	Carrier too small, i.e., radio fails to fit properly within the carrier Carrier body or strap too short, causing inability to secure fastener without applying excessive force.

NOTE: Fit examination shall be performed with a AN/PRC-68 Radio Set (see 6.3).
The radio shall be inserted into the carrier with the same speak button facing the grommet on the back of the carrier. It shall be possible to insert the radio without effort other than that necessary to overcome friction between the radio and the carrier.

4.4.5 End item dimensional examination. The end item shall be examined for conformance to all dimensions shown on the drawing. Any dimension not within the specified tolerance shall be classified as a defect. The lot size shall be expressed in units of carriers. The sample unit shall be one complete carrier. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 10.0.

4.4.6 Packaging inspection. An examination shall be made to determine that the preservation, packing and marking comply with the section 5 requirements. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully packaged. The lot size shall be the number of containers in the inspection lot. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 2.5

<u>Examine</u>	<u>Defect</u>
Marking (exterior and interior)	Omitted; incorrect; illegible; of improper size, location, sequence or method of application
Materials	Any component missing, damaged or not as specified
Workmanship	Inadequate application of components, such as incomplete closure of container flap, improper taping, loose strapping, or inadequate stapling Bulged or distorted container

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<u>Examine</u>	<u>Defect</u>
Content	Number of carriers per bundle is more or less than specified <u>1/</u> Number of bundles per container is more or less than specified
<u>1/</u> For this defect, one bundle shall be examined from each shipping container in the sample.	

4.4.5 Palletization examination. An examination shall be made to determine that the palletization complies with the section 5 requirements. Defects shall be scored in accordance with the list below. The sample unit shall be one palletized unit load fully packaged. The lot size shall be the number of palletized unit loads in the end item inspection lot. The inspection level shall be S-1 and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

<u>Examine</u>	<u>Defect</u>
Finished dimensions	Length, width, or height exceeds specified maximum requirement
Palletization	Pallet pattern not as specified Interlocking of loads not as specified Load not bonded with required straps as specified
Weight	Exceeds maximum load limits
Marking	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application

5. PACKAGING

5.1 Preservation. Preservation shall be level A or Commercial as specified (see 6.2).

5.1.1 Level A. Each carrier shall have all fasteners and keepers closed with the foam spacer specified on Drawing 2-2-421, nested at the bottom. The sling shall be folded in quarters to measure approximately 8 inches in length. The folded sling shall be inserted into the carrier. Five carriers, each alternately reversed top to bottom, shall be evenly stacked and securely cross-tied with cotton tape or twine to form a bundle measuring approximately 9-1/2 by 6 by 6 inches.

5.1.2 Commercial. Carriers shall be preserved in accordance with ASTM D 3951.

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5.2 Packing. Packing shall be level A, B, or Commercial as specified (see 6.2).

5.2.1 Level A packing. One hundred carriers, preserved as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC-L, grade V2s of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class weather-resistant, variety DW, grade V15c of PPP-B-636. Level A unit packs shall be packed flat 5 in length, 2 in width, and 2 in depth. Inside dimensions of each shipping container shall be 30 inches in length, 19-1/4 inches in width, and 12-1/4 inches in depth (\pm 1/8 inch). Each container shall have the contents completely covered on the top and bottom with a sheet of 30-pound minimum basis weight kraft paper conforming to type I, grade B of UU-P-268. Each shipping container shall be closed in accordance with method III, waterproofed in accordance with method V, and reinforced as specified in the appendix of PPP-B-636, except that inspection shall be in accordance with 4.4.6.

5.2.2 Level B packing. One hundred carriers, preserved as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC-L, type CF (variety SW) or SF, class domestic, grade 275 of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class domestic, variety DW, grade 275 of PPP-B-636. Level B unit packs shall be packed flat 5 in length, 2 in width and 2 in depth. Inside dimensions of each shipping container shall be 30 inches in length, 19-1/4 inches in width, and 12-1/4 inches in depth (1/8 inch). Each container shall have the contents completely covered on the top and bottom with a sheet of 30-pound minimum basis weight kraft paper conforming to type I, grade B of UU-P-268. Each shipping container shall be closed in accordance with method II as specified in the appendix of PPP-B-636, except that inspection shall be in accordance with 4.4.6.

5.2.2.1 Weather-resistant fiberboard containers. When specified (see 6.2), the shipping container shall be a grade V3c, V3s, or V4s fiberboard box fabricated in accordance with PPP-B-636, and closed in accordance with method III as specified in the appendix of PPP-B-636, except that inspection shall be in accordance with 4.4.6.

5.2.3 Commercial. Carriers, preserved as specified in 5.1, shall be packed in accordance with ASTM D 3951.

5.3 Palletization. When specified (see 6.2), carriers packed as specified in 5.2, shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Each prepared load shall be bonded with primary and secondary straps in accordance with the bonding means K and L or film bonding means O or P. Pallet patterns shall be in accordance with the appendix of MIL-STD-147. Interlocking of loads shall be effected by reversing the pattern of each course. If the container is of a size which does not conform to any of the patterns specified in MIL-STD-147, the pallet pattern used shall first be approved by the contracting officer.

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5.4 Marking. In addition to any special marking required by the contract or purchase order, unit packs, shipping containers, and palletized unit loads shall be marked in accordance with MIL-STD-129 or ASTM D 3951, as applicable. Each unit pack shall have attached a manila colored paper shipping tag for the identification information.

6. NOTES

6.1 Intended use. The carrier is for carrying the AN/PRC-68 and AN/PRC-68A Radio Set.

6.2 Ordering data. Acquisition documents should specify the following:

- a. Title, number, and date of this document.
- b. When a first article is required (see 3.2, 4.3 and 6.4).
- c. Selection of applicable levels of preservation and packing (see 5.1 and 5.2).
- d. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).
- e. When palletization is required (see 5.3).

6.3 Samples. For access to samples and the radio required for the fit examination in 4.4.4 address the contracting activity issuing the invitation for bids.

6.4 First article. When a first article sample is required, it shall be inspected and approved under the appropriate provisions of FAR 52.209. The first article should be a preproduction sample consisting of one carrier. The contracting officer should include specific instructions in all acquisition documents regarding arrangements for inspection and approval of the first article.

6.5 Die, eyelet, score setting. Sources of supply for the score setting eyelet die specified in 3.4.2.2 are, J. C. Rhodes and Company, Box B-962, New Bedford, MA 02745 and Stimpson Co., Bayport, NY 11705.

6.6 Nylon cloth cut edges. The cut edges of the nylon cloth are subject to fraying during the process of handling the cut parts during fabrication of the carrier. It has been found that fusing of the cut edges of the cloth will prevent fraying.

6.7 Recycled material. It is encouraged that recycled material be used when practical as long as it meets the requirements of the document (see 3.3).

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6.8 Changes from previous issue. Asterisks are not used in this revision to identify changes with respect to the previous issue, due to the extensiveness of the changes.

Custodians:

Army - GL
Navy - NU
Air Force - 82

Preparing activity:

Army - GL
Project No. 8465-0902

Review activities:

Army - MD
DLA - CT

User activity

Navy - MC

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NOTE: This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

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