

INCH-POUND

MIL-V-83271B(USAF)

3 January 1992

SUPERSEDING

MIL-V-83271A(USAF)

1 November 1985

## MILITARY SPECIFICATION

## VEST, SURVIVAL MESH SET, SRU-21/P

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

## 1. SCOPE

1.1 Scope. This specification covers the requirements for one type of survival vest which is designated SRU-21/P.

\* 1.2 Classification. The vest shall be of the following sizes as specified (see 6.5).

## Schedule of Sizes

Size	Size Indicator
Small	S
Medium	M
Large	L

## 2. APPLICABLE DOCUMENTS

2.1 Government documents.

\* 2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

## FEDERAL

PPP-B-601	Boxes, Wood Cleated-Plywood
PPP-B-636	Box, Shipping Fiberboard

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Resources and Logistics Services Division, SA-ALC/TIRDM, Kelly AFB, TX 78241-5609, by using the self-addressed Standardization document Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8415

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STANDARDS

## FEDERAL

FED-STD-751      Stitches, Seams, and Stitches.

## 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

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

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094).

\* 2.1.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

Drawings

## Air Force

66D1596      Vest-Survival, Mesh Net SRU-21/P

\* 7347136      Pocket Radio PRC-90 Survival Vest SRU-21/P

(Copies of drawings 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 Non-Government publications. The following document(s) form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

## AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3951      Packaging, Commercial

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

\* 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 takes precedence. Nothing in this document, however supersedes applicable laws and regulations unless a specific exemption has been obtained.

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## 3. REQUIREMENTS

3.1 First article. Unless otherwise specified (see 4.2.1 and 6.2), this specification provides for first article inspection.

3.2 Materials and components. The materials and the components for the vest shall be as specified on Drawing 66D1596.

3.2.1 Color. The color of the materials and the components for the vest (see 6.3) shall be as specified on the applicable drawing.

3.3 Design. The vest shall consist of twelve pockets, 10 on the outside and 2 on the inside, and a pistol holster. Unless otherwise specified (see 4.6 and 6.2), the pistol holster and outside pockets for field installation shall not be attached to the vest. The vest shall have a separating type slide fastener front closure and a lacing located on the back of the vest for size adjustment.

3.4 Construction. The vest shall be cut in strict accordance with the patterns specified herein and shall be constructed as specified on Drawing 66D1596 and 7347136.

3.4.1 Stitches, seams and stitchings. Stitches, seams and stitchings used in the construction of the vest shall conform to FED-STD-751.

3.5 Patterns. The manufacturer's working patterns shall be identical in size and shape to the patterns referenced on Drawings 7239164, and 7347136, which provide for seam allowance, size, shape, placement of pockets, directional lines for cutting, and notches for proper assembly of all the parts. Unless otherwise specified, the patterns provide an allowance of 3/8 inch for single-needle seams.

3.6 Workmanship. The finished vest shall be clean and free of all loose thread, lint, and any other foreign matter and shall not contain any nonspecified hole, abraded area, tear, cut, mend, needle chew, spot, or stain.

## 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 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 specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

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4.2 Classification of inspections. 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. Unless otherwise specified (see 3.1 and 6.2), the first article shall be subjected to all of the inspections specified herein to determine conformance to all of the requirements of this specification. The first article shall consist of one vest with pistol holster and shall be representative of the workmanship and materials to be used in the production items.

4.4 Quality conformance inspection. The quality conformance inspection shall be performed to determine conformance to the requirements specified herein and shall consist of the following tests and examinations as described herein:

- a. Inspection of materials and components. (See 4.5)
- b. In-process inspection. (See 4.6)
- c. Inspection of end item. (See 4.7)
- d. Examination of preparation for delivery. (See 4.8)

4.5 Inspection of materials and components. Unless otherwise specified (see 6.2), materials and components shall be inspected as specified in the documents referenced herein.

4.6 In-process inspection. Inspection shall be made at any point or during any phase of the manufacturing process to determine if cut lengths, cut parts, fabricated parts before assembly, and marking for location of components are in accordance with the specified requirements for dimensions and operations and assemblies, as indicated, are accomplished as specified. The procuring activity shall have the right to exclude from consideration for acceptance any material or service which in-process inspection has indicated conformance.

4.7 Inspection of end item. The end item shall be inspected as specified in 4.7.1 and 4.7.2. The sample unit and the term for expression of the lot size for the inspection of the end item shall be one completely fabricated vest with pistol holster.

4.7.1 Visual examination. The end item shall be visually examined for compliance with the requirements specified herein with respect to materials, construction, design, workmanship, and marking. The defects found during this visual examination shall be classified as specified in table I. The inspection level for this visual examination shall be II of MIL-STD-105. The acceptable quality level (AQL) for this visual examination shall be 2.5 defects per 100 units (dhu) for major defects and 6.5 dhu for total defects.

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TABLE I. Visual Examination

DEFECTS	MAJOR DEFECT	MINOR DEFECT
<u>I Materials</u>		
Mesh net containing any cut, tear, burn or smash	X101	
Mesh net containing any abrasion, broken, or missing yarns resulting in a broken mesh opening	X102	
Mesh net containing any abrasion, broken, or missing yarns but not resulting in a broken mesh opening.		X201
Mesh net containing any mend, darn, patch, or splice	X103	
Nylon cloth containing any hole except drill holes 1/16 inch or less, cut, tear, smash, multiple floats, missing yarns, or open places	X104	
Exposed drill holes 1/16 inch in diameter or less in nylon cloth		X202
Tape or webbing containing any cut, hole, or tear	X105	
Tape or webbing not firmly or tightly woven or edges of tape or webbing frayed or scalloped		X203
Hole, cut, tear, or deep abrasion in leather	X106	
Color of leather not as specified	X107	
Color of mesh net, nylon panel and pocket material, thread, slide fastener thong, tape, webbing, slide fastener tapes, or hook or pile fastener tapes not as specified		X204
Any cut, damage, kink, or knot in nylon cords, seriously affecting serviceability	X108	
Any cut, damage, kink, or knot in nylon cords, affecting serviceability but not seriously		X205
Ends of nylon cords not seared		X206

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I. Visual Examination (Continued)

DEFECTS	MAJOR DEFECT	MINOR DEFECT
<b>II. <u>Hardware</u></b>		
Hardware not specified type	X109	
Any required component improperly set or reversed, failing to serve intended purpose	X110	
Hardware broken, damaged, or malformed or containing corroded areas, burrs, or sharp edges	X111	
Any snap fastener omitted or not closing or opening freely	X112	
Any snap fastener not properly clinched i.e., components of stud or socket separating when snap fasteners are snapped or unsnapped, or clinched excessively, cutting surrounding material		X207
<b>III. <u>Seams and stitchings</u></b>		
Open seam more than 1/2 inch but not more than 1 inch <u>1</u> /		X208
Open seam more than 1 inch <u>1</u> /	X113	
Runoffs <u>1</u> /		
Raw edges (except where required) more than 1/4 inch but not more than 1 inch but securely caught in stitching <u>1</u> /		X209
Raw edges (except where required) more than 1 inch but securely caught in stitching <u>1</u> /	X114	
Any raw edge including inside of pockets not seared or overedge stitched	X115	
Not specified seam or stitch type	X116	
Loose stitch tension resulting in loosely exposed bobbin or top thread		X210
Tight stitch tension resulting in tightness or puckering of fabric		X211
One stitch per inch less than minimum specified		X212
Two or more stitches per inch less than minimum specified	X117	

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 TABLE I. Visual Examination (Continued)

DEFECT	MAJOR DEFECT	MINOR DEFECT
Two or more stitches in excess of maximum stitches per inch specified		X213
Stitching margins not as specified		X214
Stitching ends backstitched less than 1/2 inch unless held down by other stitching or turned under in a hem <u>2</u> /		X215
Thread breaks overstitched less than 1 inch for stitch type 301 or less than 3/4 inch on overedge stitching <u>1</u> /		X216
Any required row of straight stitching omitted	X118	
Seam twisted or pleated		X217
Binding loosely or improperly applied, badly pleated, or ends not finished as specified or not securely caught in stitching.		X218
Needle chews resulting in damage to fabric	X119	
One or more bartacks omitted, seriously affecting serviceability	X120	
One or more bartacks omitted, affecting serviceability but not seriously		X219
<u>IV. Construction details</u>		
Center joining seam or shoulder seams not reinforced by tape.	X121	
Any pocket not constructed or positioned on vest as specified	X122	
Any slide fasteners not attached to pocket as specified, i.e., distorted, failing to effect a smooth closure, or direction of pull not as specified on patterns	X123	
Hook portion instead of pile portion of fastener tape attached to pocket flap		X220
Fastener tape not specified size		X221
Fastener tape misplaced, not serving intended purpose	X124	

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TABLE I. Visual Examination (Continued)

DEFECT	MAJOR DEFECT	MINOR DEFECT
Strobe light cord not attached to flap of light pocket as specified	X125	
Hems not formed at top and bottom of lacer loop cover flaps	X126	
Lacer loop cover flaps not attached to vest as specified	X127	
Defects for size of armhold can be scored as follows:	X128	
More than 1/2 inch under requirement	X129	
More than 1/2 inch to 1 inch over tolerance		X222
More than 1 inch over tolerance	X130	
Hook portion instead of pile portion of fastener tape attached to lacer loop cover flaps		X223
Ends of loop adjustment tapes not properly turned under, resulting in loop end not securely caught in stitching	X131	
Loop tape cord not laced through loop tapes as specified and tied in square knot	X132	
Loops not securely anchored to the tapes by stitching along edge of tape, catching tape and loops		X224
Any required component submitted or any required operation omitted or not as specified (unless otherwise classified herein)	X133	
<u>V. Slide fasteners and assemblies</u>		
Slide fastener not specified type or size	X134	
Slider of slide fastener jamming or failing to interlock chain scoops	X135	
Thong omitted from slide fastener		X225
Ends of thongs not seared		X226
Slide fastener tapes improperly stitched to vest fronts, preventing slider from operating freely	X136	



TABLE I. Visual Examination (Continued)

DEFECT	MAJOR DEFECT	MINOR DEFECT
Bottom corners of vest uneven more than 1/4 inch but not more than 1/2 inch when slide fastener is engaged		X227
Bottom corners of vest uneven more than 1/2 inch		X228
VI. <u>Pistol holster assembly</u>		
Any required component of pistol holster assembly omitted or detail of construction of pistol holster assembly not as specified (unless otherwise specified herein)	X137	
VII <u>Labels</u>		
Information on contractor's label or on pistol label incomplete, incorrect or illegible		X228
Contractor's label not caught in neck binding		X229
Contractor's label misplaced, off center of back more than 1/2 inch		X230
Stitching omitted on one or more edges of contractor's label		X231
Pistol label or contractor's label omitted	X138	
Spots or stains not removable or thread ends not rimmed throughout vest		X232

1/ A seam shall be classified as open if one or more stitches joining the seam are broken or if two or more continuous skipped stitches or runoffs occur. Thread breaks that are not overstitched and raw edges that are not securely caught in stitching shall be classified as open seam.

2/ Stitching at the end of binding not backstitched shall not be classified as a defect, provided the binding is overlapped at least 1 inch and the overlapped end is bartacked.

4.7.2 Examination of dimensions and fit. The end item shall be examined for compliance with the dimensional characteristics specified herein and Drawing 66D1596. Each deviation from the dimensional requirements specified herein shall be classified as a defect. The inspection level for the examination of dimensions and fit shall be S-3 of MIL-STD-105. The AQL for the examination of dimensions and fit shall be 6.5 dhu (one class). The fit examination of the radio, the marker light

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and the first-aid pockets shall be performed with a Defense logistics Agency's Gage No. 586 (see 6.4) which consists of four parts (radio, mirror, marker light and personal kit) and shall be performed as follows: Insert Part 1 of the gage into the radio pocket. Insert Part 2 of the gage into the first-aid pocket. Place Part 3 of the gage directly over part two of the gage and close the slide fastener of the first-aid pocket. Insert Part 4 of the gage into the marker light pocket. Any pocket with the slide fastener or flap in the closed position, failing to Accommodate the respective gage shall be classified as a defect.

4.8 Examination of preparation for delivery. The shipping container fully prepared for delivery shall be examined, for the defects listed in table II, to determine compliance with the requirements specified herein with respect to packaging, packing, and marking. Unless otherwise, specified (see 3.3 and 6.2), the fabricated holster is not to be attached to the vest; however, care shall be exercised to assure the attached holster is delivered with the end item. The sample unit for the examination of preparation for delivery shall be one shipping container fully prepared for delivery, except that it need not be sealed or closed. The lot size shall be the number of shipping containers in the inspection lot. The inspection level shall be S-2 of MIL-STD-105, and AQL shall be 2.5 dhu (one class). The examination shall be made in two phases; an interior examination and an exterior examination of the container sealed or closed for delivery.

TABLE II. Examination of Preparation for Delivery

EXAMINE	DEFECTS
Marking (exterior and interior)	Omitted; incorrect; illegible; or improper size, location, or method of application.
Materials	Component missing, damaged, defective, or not as specified.
Workmanship	Inadequate application of components such as  incomplete closure of container flaps, loose strapping, or inadequate stapling.  Bulging or distortion of containers
Content	Number of vests per container more or less than specified <u>1/</u>  Size shown on one or more vests not as specified

1/ One vest from each container in the sample shall be examined for this defect.

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## 5. PACKAGING

5.1 Preservation. Preservation shall be Level A, C, or Commercial as specified (see 6.2).

5.1.1 Level A. Vests shall be preserved to the MIL-STD-2073/1 requirements for this level.

5.1.2 Level C. Vests shall be preserved to the MIL-STD-2073/1 requirements for this level.

5.1.3 Commercial. Vests shall be preserved in accordance with the applicable requirements of ASTM-D-3951.

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

5.2.1 Level A. Vests that have been preserved and packaged as specified in 5.1 shall be packed in exterior-type shipping containers that conform to PPP-B-601, overseas type. The closure of the shipping container shall be in accordance with the appendix of the applicable shipping container specification.

5.2.2 Level B. Vests that have been preserved and packaged as specified in 5.1 shall be packed in exterior-type shipping containers that conform to PPP-B-636, class weather resistant. The closure of the shipping container shall be in accordance with the appendix of the applicable shipping container specification.

5.2.3 Level C. Vests that have been preserved and packaged as specified in 5.1 shall be packed in accordance with the requirements of MIL-STD-2073-1 for this level.

5.2.4 Commercial. Vests shall be packed in accordance with the applicable requirements of ASTM-D-3951.

5.3 Marking

5.3.1 Level A, B, C and Commercial. In addition to any special or other identification markings required by the contract (see 6.2), each unit pack and intermediate/exterior container and pallet load shall be marked in accordance with MIL-STD-129.

5.3.2 Commercial. Vests shall be marked in accordance with the applicable requirements of ASTM-D-3951.

5.4 Palletization. Unitized loads, commensurate with the level of packing specified in the contract or order shall be palletized in accordance with MIL-STD-147. Palletized loads shall be uniform in size and quantities to the greatest extent possible. If the container is of a size which does not conform to any of the pallet pattern specified in MIL-STD-147, the pallet pattern shall first be approved by the contracting officer.

## 6. NOTES

6.1. Intended use. The vest covered by this specification is intended to be used for stowage of various items of survival equipment that are carried by the aircrew.

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6.2. Ordering data

\* 6.2.1 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number, and date of this specification.
- b. Size required (see 1.2).
- c. Requirement for attaching pistol holster to vest (see 3.3 and 4.8).
- d. Requirements for first article and for testing materials and components (see 3.1 and 4.3).
- e. Selection of applicable levels of packaging and packing (see 5.1 and 5.2).
- f. When palletization is required (see 5.4).

6.3 Color samples. Samples of the color shades may be obtained from the procuring activity or as directed by the contracting officer.

\* 6.4 First article. When a first article inspection is required, the item will be tested and should be a standard production item from the contractor's current inventory as specified in 4.1.2. The first article should consist of one vest with pistol holder. The contracting officer should include specific instructions in acquisition documents regarding arrangements for examinations, test approval of the documents first article.

\* 6.5 Part or identifying number (PIN). The PIN is a definitive part number which will be formulated to identify each item covered by this specification. The part number will be formulated by selecting from the requirement options available in this specification as follows:

Definitive specification part number: M83271  
 Followed by the size designator letter S, M, or L (see 1.2)  
 Part number example M83271/M = size medium vest.

\* 6.6 Subject term (key word) listing.

Life saving  
 Outer garment  
 Flyers  
 Safety  
 Utilities  
 First aid

6.7 Changes from previous issue. The Margins of this specification are marked with asterisks to indicate where changes (additions, modifications, corrections, deletions) from the previous issue 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 on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodian:  
 Air Force - 99

Preparing activity:  
 Air Force - 82

Reviewer activity:  
 DLA - CT  
 Air Force - 45

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