

INCH POUND

MIL-DTL-31008A (USAF)
22 June 2004

SUPERSEDING
MIL-DTL-31008
17 May 1995

DETAILED SPECIFICATION

JACKET, SECURITY FORCES, COLD WEATHER

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 cold weather jacket to be worn by security forces personnel.

1.2 **Classification.** The jacket will be furnished in the following sizes as specified (see 6.2)

SMALL MEDIUM LARGE X-LARGE XX-LARGE

Comments, suggestions, or questions on this document should be addressed to: Defense Supply Center Philadelphia, Clothing and Textiles Directorate, Attn: DSCP-COCT (Bldg 6), 700 Robbins Ave., Philadelphia, PA 19111-5092 or e-mailed to henry.jansen@dla.mil. Since contract information can change, you may want to verify the currency of this address information using the ASSIST Online database at www.dodssp.daps.mil.

AMSC N/A

FSC 8415

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2. APPLICABLE DOCUMENTS

2.1 ***General.*** The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 ***Government documents.***

2.2.1 ***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 solicitation or contract.

COMMERCIAL ITEM DESCRIPTION

A-A-2917	Twine, Cotton, Seine
A-A-50199	Thread, Polyester Core, Cotton-or Polyester Covered
A-A-52106	Cloth, Twill or Plain Weave, Polyester and Polyester Blend
A-A-55126	Fastener Tapes, Hooks and Loops, Synthetic
A-A-55634	Fastener, Slide, Interlocking

DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-C-3735	Cuffs, Knit, Wrist and Ankle, and Cloth, Knitted
MIL-W-5664	Webbing, Textile, Elastic
MIL-DTL-31011	Cloth, Waterproof and Moisture Vapor Permeable
MIL-DTL-32075	Label: For Clothing, Equipment, and Tentage, (General Use)
MIL-C-44296	Cloth, Fusibles

(Copies of these documents are available online at <http://assistdaps.dla.mil/quicksearch/> or www.dodssp.daps.mil and from the Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.3 ***Non-Government publications.*** The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

AMERICAN ASSOCIATION OF TEXTILE CHEMIST AND COLORIST (AATCC)

AATCC TECHNICAL MANUAL – TEST METHODS

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AATCC TM-96 Dimensional Changes in Commercial Laundering of Woven and Knitted Fabrics Except Wool

(Copies of this technical manual are available from www.aatcc.org or the American Association of Textile Chemist and Colorist, 1 Davis Dr. Box 12215, Research Triangle Park, Durham, North Carolina 27709-2215.)

ASTM International

ASTM D 751 Standard Practice for Coated Fabrics, Hydrostatic Resistance, Procedure B, Procedure 2

ASTM D 6193 Standard Practice for Stitches and Seams

(Copies of these documents are available from ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 or www.astm.org.)

AMERICAN SOCIETY FOR QUALITY (ASQ)

ANSI/ASQ Z1.4 – Sampling Procedures and Tables for Inspection of Attributes

(Copies of this document are available from www.asq.org or the American Society for Quality, 600 North Plankinton Ave., Milwaukee WI 53203-2914 or www.ansi.org or the American National Standards Institute, 25 West 43rd St., 4th Floor, New York NY 10036.)

2.4 ***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.

3. REQUIREMENTS

3.1 ***First article.*** When specified (see 6.2), a sample shall be subjected to first article inspection in accordance with 4.3.

3.2 ***Materials.*** The use of recycled materials is encouraged when practical as long as it meets the requirements of this document.

3.2.1 ***Basic material.*** The basic material for the outer shell, the hanger, the slide fastener thong, and the inside patch/pencil pockets shall be waterproof and moisture vapor permeable conforming to type IV, Class 3 of MIL-DTL-31011. The color shall be AF Blue Shade No. 1613.

3.2.2 ***Lining cloth.*** The material for lining the insulation cloth shall be polyester-twill cloth conforming to class 3 of A-A-52106 and the color shall be AF Blue Shade No. 1624.

3.2.3 ***Fusible interlining.*** The fusible interlining used on the collar, collarstand, shoulder epaulet, pocket flaps, and protective fly shall be type V, style B, class 1 of MIL-C-44296. The color shall be black.

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3.2.4 ***Thread***. The polyester core thread used for seaming and stitching the jackets shall conform to type I of A-A-50199, and shall be in the following sizes:

<u>Use</u>	<u>Ticket No.</u>	<u>Ply</u>
Seaming and stitching	50, 70	2
Bartacks	50	2
Overedging	70	2

The color of the thread shall be a good match to the basic cloth.

3.2.5 ***Elastic webbing***. The elastic webbing for the bi-swing retention shall be type II class 1 of MIL-W-5664 and shall be 1-inch wide and a minimum of 0.035 inch thick. The color shall be optional. The cut length shall be as follows:

Small	15-3/4 inches
Medium	16-1/2 inches
Large	17-7/8 inches
Extra large	18-3/4 inches
Extra extra large	20 inches

3.2.6 ***Slide fasteners***. The slide fasteners shall conform to type III, style 8, size 8-9 of A-A-55634, except that the separating unit shall be left handed. The chain and any other metal components, except the latch and spring of the automatic slider of the slide fastener shall be brass with a black chemical finish. The slide fastener tapes shall be cotton/warp and nylon filling, cotton, or polyester and shall be dyed to approximate the shade of the basic fabric. The tape shall not shrink more than 2 percent in the direction of the warp. The slider on the slide fastener for the front opening shall have a long tab pull with a 1/2 -inch wide thong that is fabricated from the basis fabric.

3.2.7 ***Knit cuffs and waistband***. The knitted wrist cuffs for the sleeves shall conform to type III of MIL-C-3735. The knitted waistband shall be made in accordance with the requirements specified for the type III knitted wrist cuffs of MIL-C-3735 except that the length, measured in the wale direction, shall be 9-1/4 inches and the course direction shall be as specified in table I, and the ends of the waistband shall not be tapered. The color shall be AF Blue Shade No. 1606.

TABLE I. ***Width of waistband material***

Size	Width in direction of courses of material <u>1/</u>
Small	24 inches
Medium	25 inches
Large	26 inches
Extra large	27 inches
Extra extra large	28 inches

1/ A tolerance of $\pm 1/2$ inch will be permitted.

3.2.8 ***Insulating cloth***. The material used for the thermal insulation shall be 65 percent polyolephin/35 percent polyester; dual scrim; thickness of 0.6 inches; weight 6.2 oz. A certificate

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of compliance shall be submitted stating that the batting insulation conforms to the requirements above (see 4.1.).

3.2.9 ***Seam sealing tape.*** The tape for covering and sealing all designated seams and stitching shall be cut in 1 inch wide ($\pm 1/16$) inch strips from material that is compatible with the back side of the cloth specified in MIL-DTL-31011.

3.2.10 ***Fastener tape.*** The hook and loop fastener tape shall be Black 3230 conforming to type I or type II, class I of A-A-55126, as follows:

Nameplate	2 by 4
Pocket flap	1 by 5
Epaulets	1 by 1

Note: The loop fastener for the nameplate shall be 2 inches by 4 inches. The hook fastener tape for the nameplate shall be 2 inches by 4 inches. The hook tape for the nameplate may be one piece or two pieces. If it is two pieces, only one seam is allowed. Overlap selvage edge of hook tape $1/8$ ($\pm 1/16$) inch and stitch through both plies using 304 stitch type, LSA-1 seam with 8-10 stitches per inch.

3.2.11 ***Twill cloth.*** The material for the inside hanging pocket shall conform to class 1 or 2 of A-A-52106 and the color shall be black.

3.2.12 ***Cord.*** The cord beading used in the edges of the front opening separation slide fastener cover shall be natural, size no. 18 of A-A-2917.

3.2.13 ***Labels.*** Each jacket shall have a combination size, identification label, and instruction label. The colorfastness to laundering requirements of MIL-DTL-32075 shall apply.

3.2.13.1 ***Combination size and identification label.*** The combination size and identification label shall conform to type VI, class 1 and 2 of MIL-DTL-32075:

Size: 1/
 Jacket, Security Forces, Cold Weather
 Contract No. SP0100-XX-X-XXXX 1/
 NSN
 Contractor's Name: 1/

1/ The contractor shall insert the applicable information.

3.2.13.2 ***Instruction label.*** The instruction label shall conform to type VI, class 3 of MIL-DTL-32075 and shall contain the following information:

JACKET, SECURITY FORCES, COLD WEATHER

Wash in low temperature (do not exceed 100 degrees F)
 Use a mild non-phosphate detergent
 Tumble dry, low heat cycle (do not exceed 100 degrees F)

NOTE: Do not starch, bleach, dry clean, or steam press

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3.2.13.3 ***Combination size, identification, and instruction label.*** As an alternate to 3.2.13.1 and 3.2.13.2, a combination size, identification, and instruction label conforming to class 14 of MIL-DTL-32075, may be used.

3.3 ***Design.*** The winter jacket shall be single breasted with a bi-swing back, and a center front opening with a slide fastener closure and a partial protective fly. The jacket shall have two front single welt pockets with flaps, shoulder epaulets, two inside patch pockets with pencil pocket on each, and knitted waistband and wristlets. The flaps of the front pockets and the shoulder epaulets shall be closed with hook and loop fastener tape. The jacket shall have hook and loop fastener tape at the upper left for nameplate.

3.4 ***Patterns.*** Standard patterns to be used to cut working patterns will be furnished by the Government and provide a seam allowance of 1/2 inch, unless otherwise specified. The manufacturer's working patterns shall be identical in size and shape to the applicable government patterns except that additional notches for use during construction are allowed on the working patterns. Also, minor modifications are permitted where necessary when using automatic equipment. These modifications shall not alter the dimensional, serviceability or appearance requirements cited in the specification.

3.4.1 ***Pattern parts.*** The jacket shall be cut from the materials specified herein in accordance with the pattern parts listed in table II.

TABLE II. ***List of pattern parts***

Material	Pattern nomenclature	Parts Cut
Basic material (see 3.2.1)	Front	2
	Back	1
	"A" bi-swing back	2
	"B" bi-swing back	2
	Front facing	2
	Topsleeve	2
	Under sleeve	2
	Topcollar	1
	Undercollar	1
	Collarstand	2
	Protective fly	1
	Epaulet	4
	Pocket flap	4
	Pocket facing	4
	Inside patch pocket	2
	Pencil pocket	2
	Waistband extension facing	2
	Hanger	1
Pull tab	1	
Lining (see 3.2.2)	Front	2
	Back	1
	Topsleeve	2
	Undersleeve	2
Fusible interlining (see 3.2.3)	Undercollar	1
	Collarstand	1

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TABLE II. *List of pattern parts* - Continued.

Material	Pattern nomenclature	Parts Cut
	Pocket flaps	2
	Protective fly	1
	Epaulets	2
Insulating cloth (see 3.2.8)	Front	2
	Back	1
	Topsleeve	2
	Undersleeve	2
Twill cloth (see 3.2.11)	Lower pocket	4

3.5 **Construction.** The construction shall conform in all respects to the requirements specified in table III and herein. Figures 1 and 2 are furnished solely for guidance and information purposes only. When inconsistencies exist between the written specification and the figures 1 and 2, the written specification shall govern.

3.5.1 **Stitches, seams, and stitching.** Stitches, seams, and stitching used in the construction of the jacket shall conform to ASTM D 6193. Whenever two or more methods, seams, or stitches are specified for the same operation, any one of them may be used. All seams shall start and finish evenly. Seam allowances shall be maintained so that raw edges, run-offs, twists, pleats, puckers, or open seams will be no tight or loose tension. The looper thread (under thread) of stitch type 401 shall be on the inside of the jacket.

3.5.1.1 **Type 301 stitching.** Ends of all stitching shall be backstitched or overstitched not less than 1/2 inch except where ends are turned under or caught in other seams or stitching. Ends of a continuous line of stitching shall overlap not less than 1/2 inch. Thread tensions shall be maintained so there will be no loose stitching, resulting in loose bobbin or top thread, or excessively tight stitching, resulting in puckering of the material sewn. The lock shall be embedded in the material sewn.

3.5.1.2 **Repairs of type 301 stitching.** Repairs of type 301 stitching shall be as follows:

- a. When thread breaks, skipped stitches, run offs, or bobbin runouts 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. 1/
- b. Except for pre-stitching, thread breaks or two or more consecutive skipped or run-off stitches noted during inspection of the item shall be repaired by overstitching. The stitching shall start a minimum of 1/2 inch in back of 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 material, and re-stitching in the required manner. 1/

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

3.5.1.3 **Thread breaks and ends of seams.** Thread breaks (all stitch types) shall be secured by stitching back of each end not less than 1/2 inch. Skipped stitches or thread breaks of stitch type 401 may be repaired using stitch type 301. Ends of all seams and stitches produced with stitch type 301, if not caught in other seams or stitching, shall be back tacked not less than 1/4 inch.

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The ends of a continuous line of stitching (except on labels) shall be overlapped not less than three stitches.

3.5.1.4 ***Sewing tolerance.*** A tolerance of ($\pm 1/16$) inch will be permitted for 1/4 -inch gage and 5/16- inch gage stitching. A tolerance of (+0 or $-1/8$) inch will be permitted for 3/8-inch gage stitching. A tolerance of (+0 or $-1/16$) inch will be permitted for raise seam 1/4 - inch gage. A tolerance of + 1/32 or -0 inch will be permitted for stitching 1/16 inch from the edge.

3.5.2 ***Corded beading in slide fastener covers.*** The edges of the slide fasteners covers shall have a cord beading (see 3.2.12). The outer beaded cloth edges of the slide fastener closures shall be flush with the slide fastener scoops. The scoops, when locked together, shall be completely concealed by the beaded covers.

3.5.3 ***Heat sealing.*** Seams and stitching, as indicated in table III, shall be sealed with heat sealing tape on the inside of the jacket. The entire width of the seam tape shall be uniformly sealed over the seam or stitching. All seam tapes shall be applied without tension and shall be applied so that a minimum of 1/8 inch overlap is on both sides of the sewn seam and the back knit of the laminated fabric adjacent to the seam tape shall not be melted to expose plastic film layer of the laminated fabric. All seam tapes shall overlap a minimum of 3/4 inch at joining points and all seam tape or taped cross-over areas shall be spot sealed without additional repair tape in accordance with seam tape manufacturer temperature, time and pressure recommendations for application with cross-over heat sealing machine. As an alternate, spot sealing for taped ends can be eliminated if hot-air seam tape machine can automatically cut and seal ends of seam tape without any loose ends. However, spot sealing for taped cross-over areas shall remain. Sealed seams, cross over areas and sealed stitching shall show no leakage, tape ends (including sides of tape) shall show no signs of lifting, curling, bubbling or separation more than 1/8 inch of tape top knit shrinkage such that the tape middle layer is exposed when tested initially.

3.6 ***Manufacturing operations requirements.*** The jacket shall be manufactured in accordance with operation requirements specified in table III. The contractor is not required to follow the exact sequence of operations provided the finished jacket is identical to that produced by following the sequence as listed in table III. Minor modifications are permitted where necessary when using automatic equipment. These modifications shall not alter the dimensional, serviceability or appearance requirements cited in the specification.

TABLE III. ***Manufacturing operations***

No. Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
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1. ***Cutting***

a. Cut jacket in strict accordance with patterns furnished. The cloth shall be laid in uniform lengths, with care taken in spreading the material so that the plies will not be stretched of full and so that one side of the lay will be even. The patterns shall be laid in accordance with the directional lines (warp direction) indicated on the patterns.

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TABLE III. **Manufacturing operations** – Continued.

No. Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
<p>b. The hanger, the flap linings, undercollar, pull tab, and inside patch and pencil pockets may be cut from ends. Except for parts that may be cut from ends, all parts made of basic fabric shall be cut from one piece of material. Parts cut from ends shall approximate the shade of the other parts of the jacket.</p>			
<p>c. Except for the sleeve linings, all parts of the lining shall be cut from one piece of material. The sleeve linings may be cut from ends but shall match each other.</p>			
<p>2. <u>Replacement of defective or damaged parts</u></p>			
<p>Care shall be taken during the spreading, cutting, and manufacturing operations to exclude or replace any material that contains material defects or workmanship that could affect the appearance or serviceability of the jacket.</p>			
<p>3. <u>Component marking</u></p>			
<p>Except for parts cut from ends, all parts of the basic fabric and the lining shall be marked, ticketed, or bundled to ensure a uniform shade and size throughout the jacket (see 3.7).</p>			
<p>4. <u>Fuse parts</u></p>			
<p>The jacket shall have fusible interling fused to the undercollar and the protective fly. The epaulet, collarstand, and pocket flap parts shall have fusible interling fused to one part for each pair of basic material parts.</p>			
<p>5. <u>Make pockets with flap</u></p>			
<p>a. Fuse interlining to top pocket flap.</p>			
<p>b. Join one piece of loop fastener tape, 1 inch wide by 5 inches long, to the underside of the flaps, at pattern marks.</p>	301	LSbj-1	8-10

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TABLE III. *Manufacturing operations* – Continued.

No. Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
stitch on all four sides, 1/16 inch from edge.			
c. Sew flaps with face sides together with a signal row of stitching 3/8 inch from edge.	301	SSe-2 (a)	8-10
d. Turn flaps and raise stitch with a single row of stitching, 1/4 -inch gage from edge.	301	SSe-2 (b)	8-10
e. Hem and stitch welt facing pieces to the pocketing with a single row of stitching 1/16 inch from edge.	301	SSa-1 or LSd-1	8-10
f. Sew flaps on fronts at drill marks with a single row of stitching 1/4 inch from edge.	301	SSa-1	8-10
g. Sew welt and pocketing on fronts at drill marks below flaps with a single row of stitching 1/4 inch from edge.	301	SSa-1	8-10
h. Cut pockets through with a diamond-shaped tongue at corners.			
i. Place pocketing through slits. Double over at edge for reinforcement.			
j. Form a 5/8 -inch welt, sew tongues at corners to the welt and facing on the inside with a single row of stitching. Securely tack the ends of the stitching.	301	SSa-1 or LSq-2 (b)	8-10
k. Raise stitch around the sides and bottom of the welts on the fronts with a single row of stitching 1/16 inch from edge.	301	SSa-1 or LSq-2 (b)	8-10
l. Stitch across top of flaps and corners on jackets through the pocketing with a single row of stitching 1/16 inch from edge.	301	SSa-1 or LSq-2(b)	8-10
m. Join a 1 by 5 inch hook fastener tape to jacket corresponding to loop tape on flap. Stitch 1/16 inch from edge on all four sides.	301	LSbj-1	8-10

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TABLE III. **Manufacturing operations** – Continued.

No. Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
n. Stitch around edge of pocketing with a single row of stitching 1/2 inch from edge.	301	SSa-1	8-10
o. Bartack the corners of each pocket opening with a 3/4 -inch bartack on the inside, catching the tongues and welt.	bartack		42 stitches per bartack
p. Lay heat-sealing tape over flap stitching on inside and heat-seal.			
6. <u>Join fastener tape for nameplate</u>			
a. Position a 2 by 4 inch piece of loop fastener tape for the nameplate above the left front pocket at the pattern marks; join on all four sides 1/16 inch from the edge with a single row of stitching.	301	LSbj-1	8-10
b. Lay heat-sealing tape over stitching for loop fastener tape and heat seal.			
c. Affix a piece of hook fastener tape 2-inches by 4 inches to the loop fastener tape for use as a mounting for the wearer's nameplate.			
7. <u>Join shoulder darts and bi-swing panels</u>			
a. Join the shoulder darts with a single row of stitching.	301	Osf-1	8-10
b. Fold the shoulder darts to the inside, and join with a single row of stitching 1/16 inch from the edge.	301	LSq-2 (b)	8-10
c. Lay heat-sealing tape over dart on inside and heat-seal.			
d. Join the bi-swing back panels "A" and "B" at the outer curve with the material face to face. Place with a single row of stitching 3/8 inch from the edge.	301	SSa-1	8-10
e. Join the bi-swing back panel "A" to the back panel at the inner curve, with the	301	SSE-2 (a)	8-10

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TABLE III. Manufacturing operations – Continued.

No. Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
material face to face, with a single row of stitching 3/8 inch from the edge.			
f. Turn and raise stitch with a single row of stitching 1/4 inch from the edge.	301	SSe-2 (b)	8-10
g. Lay the assembled bi-swing back flat. Place a single row of stitching 1/16 inch from the edge at the shoulder seam and at the bottom end of the curve.	301	SSa-1	8-10
h. Lay the assembled bi-swing back out flat. To it, join a 1-inch wide piece of the elastic webbing without tension with a double row of stitching 1/8 inch from the edge, 1/16-inch gage. Position at the pattern mark on the bi-swing back panels "A" and "B" by overlapping 3/8 inch on each end.	301	LSa-2	8-10
8. <u>Make sleeves</u>			
a. Join the elbow seam with a single row of stitching 3/8 inch from edge.	301 or 401	LSq-2 (a)	8-10
b. Turn and raise stitch, with a topsleeve over-lapping the undersleeve, with a single row of stitching 1/4 inch from the edge.	301	LSq-2 (b)	8-10
Or			
c. As an option to operations 8.a and 8b, join the elbow seam of the sleeve with a double-lapped, double-stitched seam 3/16-inch to 5/16-inch gage.	301 or 401	LSc-2	8-10
d. Lay heat-sealing tape over the seam and heat seal.			
9. <u>Join shoulders</u>			
a. Join the fronts to the back, at the shoulders, with a single row of stitching 3/8 inch from the edge.	301 or 401	LSq-2 (a)	8-10
b. Turn and raise stitch, with the front overlapping the back, with a single row of stitching 1/4 inch from the folded edge.	301 or 401	LSq-2 (b)	8-10

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TABLE III. Manufacturing operations – Continued.

No. Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
Or			
c. As an option to operations 9.a and 9.b, join the fronts to the back at the shoulder with a double-lapped, double-stitched seam 3/16-inch to 5/16-inch gage.	301 or 401	LSc-2	8-10
10. <u>Make protective fly</u>			
a. Fuse the interlining to the top side of protective fly.			
b. Fold the protective fly inside out. Stitch the protective fly even with the fold and the ends.	301	SSe-2 (a)	8-10
c. Turn and raise stitch with a single row of stitching 1/4 inch from the edge on the front edge and both ends.	301	SSe-2 (b)	8-10
11. <u>Make and attach shoulder epaulet</u>			
a. Fuse interlining to top side of epaulet.			
b. Stitch the 1 by 1 hook fastener tape to epaulet at marks on all four sides, 1/16 inch from edge.	301	LSbj-1	8-10
c. Join the top and underside of the epaulet at the sides and point with a single row of stitching 3/8 inch from edge.	301	SSe-2 (a)	8-10
d. Turn epaulet and raise stitch with a single row of stitching 1/4-inch gage from edge.	301	SSe-2 (b)	8-10
e. Center the epaulet on the jacket at the armhole and shoulder seam at the neck.			
f. The epaulet shall be stitched to the jacket 1/16 to 3/16 inch from the armhole edge.	301	SSa-1	8-10
g. With epaulet flat, smooth, and centered on shoulder seam, mark location of loop tape (corresponding to hook tape) and	301	LSbj-1	8-10

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TABLE III. Manufacturing operations – Continued.

No. Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
attach 1/16 inch from edge on all four sides.			
h. Lay heat-sealing tape over shoulder seam on inside and heat seal.			
12. Attach sleeves			
a. Join the sleeves to the armholes with a single row of stitching 3/8 inch from edge.	301 or 401	LSq-2 (a)	8-10
b. Turn and raise stitch on the fronts and the backs, from the elbow seam to the front armhole notch or approximately 3 inches from the shoulder seam, with a single row of stitching 1/4 inch from the folded edge.	301	LSq-2(b)	8-10
c. Lay heat-sealing tape over seam on inside and heat seal.			
13. Join side seams			
a. Join the side seams, from the sleeve terminals to the bottom of the fronts, with a single row of stitching 3/8 inch from the edge.	301 or 401	LSq-2 (a)	8-10
b. Turn and raise stitch, with the topsleeve overlapping undersleeve, with a single row of stitching 1/4 inch from the folded edge.	301 or 401	LSq-2 (b)	8-10
Or			
c. As an option to operations 13.a and 13.b, join the side seams and the sleeve inseam with a double-lapped, double-stitched seam 3/16-inch to 5/16-inch gage.	301 or 401	LSc-2	8-10
d. Lay heat-sealing tape over seam on inside and heat-seal.			
14. Make collar			
a. Fuse interlining to undercollar and topcollarstand. Manufacturers shall reduce the undercollar and collarstand fusible by 1 inch at the area where they join together. This is to allow for seam sealing tape to be	301 or 401	Sse-2(a)	10-12

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TABLE III. Manufacturing operations – Continued.

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
	applied at collar/collarstand seam. This operation shall not affect the appearance or service-ability of the end item.			
b.	Join the undercollar to the undercollarstand and the topcollar to the topcollarstand, each with a single row of stitching 1/4 inch from the edge.	301 or 401	LSq-2(a)	8-10
c.	Turn and raise stitch, with the stand overlapping the collar, with a single row of stitching 1/16 inch from the edge.	301	LSq-2 (b)	8-10
d.	Lay heat-sealing tape over seam on inside and heat seal.			
e.	Join the topcollar to the undercollar with a single row of stitching 1/4 inch from edge.	301	SSe-2 (a)	8-10
f.	Turn and force out the edges.			
15. <u>Make hanger</u>				
a.	Make the hanger of the basic fabric. The finished hanger shall be $1/2 \pm 1/8$ inch wide by $3-1/2 \pm 1/4$ inches long.	301	EFp-1	8-10
b.	Sew on each side 1/16 inch from the edge with a single row of stitching.	301	OSf-1	8-10
16. <u>Join inside front facing to front lining</u>				
	Join front facing to front lining with a single Row of stitching matching pattern marks.	301	SSa-1	8-10
17. <u>Make inside patch pockets</u>				
	Finished appearance. There shall be two inside patch pockets, combination pencil pockets, one on each front lining panel located at the pattern marks. Each pocket shall be slanted according to pattern marks.			
a.	Fold the top of the pencil pocket and patch pocket at the notches with the raw edge turned under and stitched with a single row of stitching 1/16 inch from the edge.	301	Efb-1	8-10

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TABLE III. **Manufacturing operations** – Continued.

No. Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
b. Place the pencil pocket on the patch pocket at the pattern marks, turn under 1/2 inch at the inside and bottom of pencil pocket, and attach with a single row of stitching 1/16 inch from folded edge.	301	LSd-1	8-10
NOTE: Inside pencil pocket's bottom row of stitching May be completed when performing operation 19.			
c. Place a single row of stitching 1-1/8 inch from the inside folded edge of the pencil pocket that runs the entire length of the compartment to separate the openings.	301	SSv-1	8-10
<u>18. Attach patch pocket with pencil compartment to right and left front lining</u>			
a. Turn in the raw edges at the sides and the bottom of the pocket 1/2 inch, and stitch 1/16 inch from the turned edge to the fronts as indicated by the pattern. Both corners shall be box-stitched. As an alternate to box stitching, both corners may be bartacked using same methods as operation 18b.	301	LSd-1	8-10
b. Bartack the ends of all pencil compartment openings with the bartack superimposed on the back, center, and front rows of stitching. The bartack shall be 3/8 to 1/2 inch long.	bartack		28 stitches per bartack
<u>19. Prepare linings</u>			
Sew all batting interlining pieces and the respective lining pieces together all around the edges with a single row of stitching, 1/4 inch from the edge, in accordance with the notches on patterns.	301 or 401	SSq-1	7-9
<u>20. Join shoulder darts of lining</u>			
a. Join the shoulder darts of the lining with a single row of stitching.	301	OSf-1	8-10
b. Fold the shoulder darts in the lining to the inside, and raise stitch with a single row of stitching 1/8 inch from each folded edge.	301	LSq-2 (b)	8-10

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TABLE III. Manufacturing operations – Continued.

No. Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
21. <u>Join shoulders of lining</u>			
a. Join the fronts to the backs, at the shoulders of the lining, with a single row of stitching 1/4 inch from the edge.	301	SSz-3 (a)	8-10
b. Spread open the seam joining the shoulders of the lining, and raise stitch with a double row of stitching 1/8 inch from each folded edge.	301 or 401	SSz-3 (b)	8-10
22. <u>Join sleeves of lining</u>			
a. Join the topsleeves to the undersleeves at the elbow seam of the lining with a single row of stitching 1/2 inch from the edge.	301 or 401	SSz-3 (a)	8-10
b. Spread open the seam joining the topsleeve to the undersleeve at the elbow of the lining. Raise stitch 1/8 inch from each edge.	301 or 401	SSz-3 (b)	8-10
c. Join the sleeves to the armholes of the lining with a single row of stitching 1/2 inch from edge.	301 or 401	SSz-3 (a)	8-10
d. Spread open the seam. Raise stitch with a double row of stitching 1/8 inch from edge.	301 or 401	SSz-3 (b)	8-10
23. <u>Join side seams of lining</u>			
a. Join the side seams of the lining, from the sleeve terminal to the bottom edge, with a single row of stitching 1/2 inch from edge.	301 or 401	SSz-3 (a)	8-10
b. Open the side seams. Raise stitch with a double row of stitching 1/8 inch from the edge.	301 or 401	SSz-3 (b)	8-10
24. <u>Prepare waistband</u>			
a. Sew the outershell extension facing pieces to each end of the knit waistband with a single row of stitching 1/2 inch from edge.	301	LSq-2 (a)	8-10
b. Turn and raise stitch with the outershell overlapping the knit waistband, stitch with a single row of stitching 1/4 inch from edge.	301	LSq-2 (b)	8-10

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TABLE III. Manufacturing operations – Continued.

No. Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
25. <u>Attach waistband</u>			
a. Sew one side of the waistband to the bottom of the outershell with a single row of stitching 1/2 inch from edge.	301	SSa-1	8-10
b. Attach the opposite edge of the waistband to the bottom of the lining with a single row of stitching 1/2 inch from the edge.	301	SSa-1	8-10
c. With the jacket turned inside out, join the outershell, the lining, and the waistband between the extension pieces with a single row of stitching 1/2 inch from edge.	301	SSa-1	8-10
d. With jacket outershell face out, fold the front edge to the inside to the inside at the pattern marks. Insert the cord in the fold and stitch close to the cord with a single row of stitching. The beaded edges shall be flush with each other when attached to the closed slide fastener. The cord shall run the entire length of the front opening.	301	EFa-1	8-10
26. <u>Attach knitted cuffs</u>			
Sew the prefolded knit cuff to the bottom of the lining and outershell sleeve terminal with a double row of stitching 1/2 inch from edge.	301	SSa-1	8-10
27. <u>Join slide fastener to protective fly</u>			
Position the right slide fastener tape, with the slider attached on the protective fly with the raw edge even with the tape edge. Join with a single row of stitching 1/4 inch from the edge of the scoops.	301	SSa-1	8-10
28. <u>Join assembled slide fastener and protective fly</u>			
a. Join the assembled slide fastener and protective fly to the front lining with a single row of stitching 1/4 inch from edge of the scoops.	301	LSq-2(a)	8-10

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TABLE III. Manufacturing operations – Continued.

No. Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
b. Join the slide fastener to the left front lining with a single row of stitching ¼ inch from the edge of the scoops. The bottom of the slide fastener stop shall finish ½ (± 1/8) inch from the bottom.	301	LSq-2(a)	8-10
29. <u>Attach hanger</u>			
Position the hanger on the back panel of the lining, centered 1 inch down from the neck opening raw edge. Join with a single row of stitching 1/16 inch from the edge, forming a 3/8- by 3/8-inch box, “X” stitch, or make a 1/2-inch-wide bartack.	301 or bartack	LSd-1	8-10 28 stitches per bartack
30. <u>Attach labels</u>			
Position the top of the combination identification and size label directly below the hanger. Position the top of the instruction label so that it will be centered not more than 1/2 inch below the bottom of the combination identification and size label. Sew the combination identification and size label and instruction label on all four sides to the quilted lining with a single row of stitching 1/16 inch from edge. The top of the instruction label may be caught in the stitching of the bottom of the combination identification and size label.	301	LSbj-1	8-10
31. <u>Turn jacket</u>			
a. Join the outershell to the lining at the front opening. Position the beaded edge on the slide fastener with the edges butting when the slide fastener is closed. Join with single row of stitching ¼ inch from edge of the scoops.	301	SSa-1	8-10
b. Join the outershell to the lining at the neck opening with a single row of stitching 1/8 to 1/4 inch from edge.	301	SSa-1	8-10
32. <u>Attach collar</u>			
a. Join the undercollar to the neck opening with a single row of stitching 3/8 inch from edge.	301	SSa-1	8-10
b. Turn the raw edge of the topcollar under 3/8	301	LSb-1	8-10

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TABLE III. **Manufacturing operations** – Continued.

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
	inch . Join with a single row of stitching 1/16 inch from the folded edge.			
c.	Raise stitch around the collar with a single row of stitching 1/4 inch from edge.	301	SSe-2(b)	8-10
33. <u>Make pull tab</u>				
a.	Fabricate the pull tab for the slide fastener for the front opening so that the finished pull tab will be 1/2 inch wide by 3 inches long.	301	EFp-2	8-10
b.	Pull the pull tab through the hole in the slider tab bartack pull so that the ends of the pull tab will be even.			28 stitches per bartack
	bartack at the bottom, the center, and at the end of the slider tab pull, across the 1/2 inch width.			
34. <u>Clean jacket</u>				
a.	Trim all thread ends. Remove all loose thread ends.			
b.	Remove all spots, stains, and shade tickets without damage to the fabric.			

3.6.1 **Automatic equipment.** Automatic machines may be used to perform any of the required stitch patterns provided the requirements for the stitch pattern, stitches per inch, and sizes and type of thread are met; and at least three typing, overlapping or back stitches are used to secure the ends of the stitching.

3.7 **Shade and size marking.** The cut parts of the jacket shall be marked to ensure correct size and uniform shade. Any method of marking may be used except:

- a. Corrosive metal fastening devices
- b. Sew-on type tickets
- c. Adhesive type tickets which show discoloration or leave an adhesive mass that adheres to the material upon removal of the tickets
- d. Any marking medium which would tend to leave a permanent mark

3.8 **Finished measurements.** The finished measurements of the jacket shall conform to table IV.

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TABLE IV. *Finished measurements (inches)*

Size	Back Length <u>1/</u>	1/2 Chest <u>2/</u>	Sleeve inseam <u>3/</u>
Small	21-3/4	23-1/2	20-1/4
Medium	22-1/4	25-1/2	20-1/2
Large	22-3/4	27-1/2	20-3/4
Extra large	23-1/4	29-1/2	21
Extra extra large	23-3/4	31-1/2	21-1/4
Tolerance	+ 3/8 - 5/8	± 1/2	+ 1/4 - 3/8

1/ Back length - Measure at the center of the back, from the bottom of the undercollar seam to the bottom above the knit.

2/ 1/2 Chest - Measure at the base of the armhole, with the slide fastener closed, from folded edge to folded edge.

3/ Sleeve inseam - Measure along the underarm seam, from the armhole to the seam above the knit.

3.9 **Workmanship.** Jackets shall be free of all loose thread, lint, and foreign matter. Jackets shall uniform in quality and shall be free from irregularities. Occurrence of defects shall not exceed the acceptance criteria established herein.

4. VERIFICATION

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

- a. First article inspection (see 4.2)
- b. Conformance inspection (see 4.3)

4.2 **First article inspection.** When required (see 3.1), the first article shall be inspected as specified in 4.4.3.1 through 4.4.3.3 for compliance with design, construction, workmanship and dimensional requirements. The presence of any defect shall be cause for rejection of the first article.

4.3 **Conformance inspection.** Unless otherwise specified, sampling for inspection shall be performed in accordance with ANSI/ASQ Z1.4. The acceptance criteria as specified in the contract or purchase order shall be binding (see 6.4).

4.4 **Component and material inspection.** Components and materials shall be tested in accordance with all the requirements of referenced specifications, drawings, and standards unless

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otherwise excluded, amended, modified, or qualified in this specification or applicable procurement documents.

4.4.1 ***Component testing.*** In addition to any testing required by 4.4, components listed in table V shall be tested for the characteristics noted. The lot and sample sizes shall be as follows:

<u>Lot Size</u>	<u>Sample Size</u>
800 or less	2
801 to 22,000 inclusive	3
22,001 and over	5

The lot shall be unacceptable if one or more sample units fail to meet any test requirement specified. The lot size units and the sample units shall be as follows:

<u>Component</u>	<u>Lot Size Unit</u>	<u>Sample Unit</u>
Slide fastener tape	Yard	1 Yard
Insulating material (liner)	Yard	1 Yard full width

4.4.2 ***In-process inspection.*** Inspection shall be made at any point or during any phase of the manufacturing process to determine whether construction details which cannot be examined in the finished product are in accordance with specified requirements. This inspection shall include verification that the working patterns conform to the Government patterns in all respects. Whenever nonconformance is noted, corrections shall be made to the items affected and the lot in process. Items which cannot be corrected shall be removed from production.

TABLE V. ***Component tests***

Component	Characteristics	Requirement Paragraph	Test Methods
Slide fastener tape	Shrinkage	3.2.6	AATCC-96 Test VI, A <u>1/</u>
Insulating material	Weight	3.2.8	<u>2/</u>
	Thickness	3.2.8	<u>2/</u>

1/ Cotton procedure for 5 launderings.

2/ A certificate of compliance will be acceptable for this requirement

4.4.2.1 ***Adhesion testing of fusibles.*** Prior to fusing each 2000 parts, a sample of equivalent area to a part shall be fused for visual and adhesion testing. After visual examination for bubbling, delamination and bleed through, the sample shall be cut to a 1-inch width and peeled in the warp direction using a spring scale or suitable device capable of measuring the peel strength in ounces. Any sample failing the minimum peel strength requirements specified 3.2.3 or showing any bubbling, delamination or bleed through shall be cause for rejection of the previous 2000-fuse parts. No fusing shall be performed after the rejection of a 2000-part lot until the machine has been properly adjusted to produce a passing sample. The rejected lot shall then be replaced with a shade-matched lot which has been fused correctly. Rejection of the previously fused parts shall not apply to the first sample tested after machine warm-up.

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4.4.3 Examination of the end item.

4.4.3.1 **Visual examination.** The end item shall be examined for defects listed in table VI. The lot shall be expressed in units of jackets. The sample unit shall be one jacket.

4.4.3.2 **Dimensional examination.** Jackets shall be examined for conformance to the dimensions specified in table V. The lot shall be expressed in units of jackets. The sample unit shall be one jacket.

4.4.3.3 **End item testing.** The end items shall be tested as specified in paragraph 4.5 for conformance to requirements of hydrostatic resistance seam tape and seam tape integrity, specified in 3.5.3. The lot shall be expressed in units of jackets. The sample unit shall be one jacket.

TABLE VI. **Classification of defects.**

Defect	Major	Minor
1. <u>Material defect and damage</u>		
Any weakening material defect such as hole, smash, multiple float, hole (except lining and knitted fabric). Large drill hole, cut, tear, mend, or needle chew that might develop into hole (except lining and knitted fabric)	101	
Shade bars, slubs, or any other similar non-weakening material defects on both the outside and inside of jacket (except lining and knitted fabric). Ruptured fibers in line of sewing (usually caused by broken, blunt, or hooked needles) affecting appearance or serviceability (except lining and knitted fabric)		201
2. <u>Shaded parts</u>		
Outside parts (visible when jacket is worn) shaded. Variation of shade within any part required to be cut from one piece of material. Lining and inside parts (not visible when jacket is worn) badly shaded.		202
3. <u>Cleanness</u>		
Indelible ink shade stamping exposed on outside or spots or stains of permanent nature. Spot or stain clearly noticeable. Thread ends not trimmed or one or more shade tickets not removed.		203
4. <u>Cutting</u>		
Any component not cut in accordance with directional lines on patterns or specified requirements.	102	
5. <u>Component and assembly</u>		
Any component defective or missing. Any required operation omitted or improperly performed.	103	

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TABLE VI. Classification of defects. – Continued.

Defect	Major	Minor
6. <u>Seams and stitching</u>		
Seam twisted, pleated, or badly puckered. Part of jacket caught in any unrelated operation or stitching. Raw edges on inside over 1 inch. Loose stitch tension, resulting in loose seam. Four or more stitches per inch less than maximum specified. Loper thread of 401 stitch type on outside.	104	
Thread(s) used on outside not same shade or not satisfactorily matching shade of jacket. Thread breaks or end(s) of stitching, if not securely backstitched or tacked as specified. Gage of edge, top, or raise stitching irregular, i.e., unevenly gaged or corresponding stitching not uniformly gaged affecting appearance. Gaged of edge, top, or raise stitching not within range of gage specified or varies more than 1/16 inch if no range is specified. Open seam over 1/4 inch on joining seam. Stitches skipped or broken over 1/2 inch, but not over 1/2 inch on edge, top, or raise stitching when seam is seamed, turned, or stitched. Raw edges on outside over 1/4 inch. Raw edges on inside over 1/2 inch, but not over 1 inch. Run-offs on edge, top, or raise stitching, if not resulting in open seam (outside only), over 1 inch but not over 1 inch. Stitch or seam type not as specified. Loose stitch tension on edge, top, or raise stitching, recognized by loose exposed loops of top or lower thread. Tight tension. Three stitches per inch less than minimum specified. One or more stitches per inch less than maximum specified.		204
7. <u>Slide fasteners</u>		
Slide fastener not specified type, size, or style or any part of assembly omitted, bent, or broken. Interference with movement of any slider. Lining more or less than 1/4 inch from edge of slide fastener scoops.	105	
Any portion of jacket or slide fastener tape puckered, twisted, or pleated at slide fastener tape joining seam when slide fastener is open or closed. Slide fastener not closed in specified direction. Pull tab not attached to slider for front opening as specified.		205
8. <u>Slide fastener coverings</u>		
Cord beading omitted in slide fastener covering	106	
Edges of slide fastener covering overlapping more than 1/16 inch or gaping more than 1/16 inch when slide fastener is closed. Cord beading not sewn taut in slide fastener covering.		206

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TABLE VI. Classification of defects. - Continued.

Defect	Major	Minor
9. <u>Bartack</u>		
Three or more bartacks missing, insecure, or misplaced not serving intended purpose. Any bartack less than specified length	107	
Two or less bartack missing, insecure, or misplaced not serving intended purpose.		207
10. <u>Label</u>		
Size on label missing, incorrect, or illegible. Any label omitted or misplaced.	108	
Information (except size) on label incomplete, incorrect, or illegible. Label misplaced or off center of back more than 1/2 inch		208
11. <u>Fronts</u>		
Hook and loop fastener tape not entirely covered by flap. Fastener tapes reversed, i.e, loop portion on front and hook portion on underside of flap.	109	
Front pockets 1/2 inch or more out of alignment with each other. Fronts sagging, twisted, or bulging across chest or caused by tightness of lining. Back overlapping front at side seam.		209
12. <u>Sleeves</u>		
Sleeve overlapping body parts at joining seam. Sleeves reversed.	110	
Any sleeve twisted or distorted at armhole, causing shortness, tightness, or incorrect positioning of lining. Undersleeve overlapping top sleeve at inseams or elbow seam. Wristlets twisted in attachment to sleeve bottom, affecting appearance. Any sleeve lining short, twisted or tight causing distortion.		210
13. <u>Shoulder darts and bi-swing panels</u>		
One or more shoulder darts omitted. Elastic webbing in bi-swing panels stitched too tightly, causing puckering on bi-swing, affecting appearance. Elastic webbing omitted.		211
14. <u>Hanger</u>		
End(s) of hanger not securely stitched as specified. Finished hanger less than 3-1/4 inches long or more than 3-3/4 inches long. Hanger less than 3/8 inch wide or more than 5/8 inch wide. Hanger 1 inch or more off		212

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TABLE VI. *Classification of defects.*- Continued.

Defect	Major	Minor
center with center of back. Hanger stitched and bartacked through outershell.		
15. <u>Fastener tape</u>		
Fastener tape (except wearer's namplate) misplaced, not serving intended purpose. Hooks or loop flattened or missing from any fastener tape area 25 percent or more. Fastener tape (hook and loop) for wearer's nameplate missing. Fastener tape for wearer's nameplate not specified type.	111	
Hook fastener tape more than 1/4 inch out of alignment with loop fastener tape. Fastener tape (except wearer's nameplate) not specified size. Hooks or loops flattened or missing from any fastener tape area up to 25 percent. Fastener tape for wearer's nameplate misplaced more than 1/2 inch. Stitching omitted on one or more edges of loop tape for wearer's nameplate.		213
16. <u>Heat sealed seams</u>		
Any seam tape not 1/8 inch overlap on each side of sewn seam. Any seam tape not overlapped 3/4 inch minimum. Any area of the laminate knit fabric bordering the seam tape that is melted exposing laminate film.	112	
Any seam tape not located as specified. Any required stitching not covered by seam tape. Any needle punctures that have not been repaired using heat sealing tape.		214
17. <u>Repairs</u>		
Any heat sealing repairs extending beyond 25 inches in length. More than five repairs on any one item.		
18. <u>Seam tape adhesion</u>		
Visible scorching (heat degradation of the fabric on the laminate) in excess of 3/16 inch in width or 1/2 inch in length at any location along a tape seam.		215
Seam tape lifting off fabric within 3/4 inch of seam.	113	
19. <u>Fusible material</u>		
Omitted from undercollar, topcollarstand, pocket flaps, protective Fly, or epaulet. Partial or complete delamination on any fused Component. Bubbling on any fused component. Any strike through Or bleed through. Any resin transfer on any fused component. Any	114	

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TABLE VI. Classification of defects. – Continued.

Defect	Major	Minor
Resin transfer on any non-fused component.		
20. <u>Knit cuffs</u>		
Knit cuffs full or twisted, affecting appearance. Knit cuffs not specified type or color.		216
21. <u>Waistband</u>		
Waistband puckered, twisted, or pleated by the stitching forming bottom knit band.	115	
Waistband not specified color, type, length, or width. Waistband twisted in attachment to bottom of jacket, affecting appearance. Waistband not attached to jacket as specified.		217

4.5 Methods of inspection

4.5.1 Hydrostatic resistance test. The hydrostatic resistance of sealed seam areas of the jacket shall be tested in accordance with ASTM D 751, except for the following: The test specimen need not be conditioned and does not need to be tested in a conditioned environment (ambient conditions may be use). The test may be performed on any device that tests the same specimen area at the equivalent pressure. The hydrostatic head shall be 50 centimeters pressure (or 0.8 psi) for 3 minutes. The jacket shall be opened at the bottom along the waistband; along the undersleeves and side seams of the lining to acquire access of sealed seams to be tested. The jacket shall be tested in three different locations as follows: one shoulder dart; one area- the junction of the back sleeve to the armhole where the topsleeve is overlapping undersleeve and one area-the front sleeve to the armhole. The water shall contact the outside of the jacket. The sealed seam shall be centered in the 4-1/2 inch diameter test area of the testing machine. Evidence of leakage in one or more seam locations shall be considered a test failure. Leakage is defined as the appearance of one droplet of water anywhere in the 4-1/2 inch diameter test area. In cases of dispute, the apparatus described in ASTM D 751 shall be used.

4.5.2 Tape ends integrity test. The jacket shall be examined for any sign of tape end lifting, within 3/4 inch of sewn seam, tape curling, bubbling, separation along tape edges or across the tape width, or tape top knit shrinkage more than 1/8 inch exposing the tape membrane or middle layer (see 3.5.3). Tape ends lifting more than 1/8 inch beyond the 3/4 inch of the sewn seam shall be tested for hydrostatic resistance in accordance with paragraph 4.5.1 and are acceptable with no leakage.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD

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personnel or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Service or Defense Agency or within the military service's system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 ***Intended use.*** The jacket covered by this specification is intended to be worn in cold temperatures by Air Force Security Forces.

6.2 ***Acquisition requirements.*** Acquisition documents should specify the following:

- a. Title, number and date of this specification.
- b. Sizes required (see 1.2.).
- c. When first article inspection is required, (see 3.1).
- d. Packaging requirements (see 5.1)

6.3 ***First article.*** When first article inspection is required, the item should be a first article sample. The contracting officer should also include specific instructions in acquisition documents regarding arrangements for examinations, approval of first article test results, and disposition of first articles. Invitations for bids should provide that the Government reserves the right to waive the requirement for samples for first article inspection to those bidders offering a product which has been previously acquired or tested by the Government and that bidders offering such products, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending contract. Bidders should not submit alternate bids unless specifically requested to do so in the solicitation.

6.4 ***Acceptance criteria.*** The acceptance criteria specified in 4.4.3.1, 4.4.3.2, 4.4.3.3, 4.4.5 and 4.5.1 unless otherwise specified are in accordance with ANSI/ASQ Z1.4.

6.5 ***Government furnished patterns.*** The contracting officer shall arrange to furnish the patterns listed in 3.4.

6.7 ***Subject term (key word) listing.***

Clothing, specialized
Clothing, waterproof

6.8 ***Changes from previous issue.*** Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

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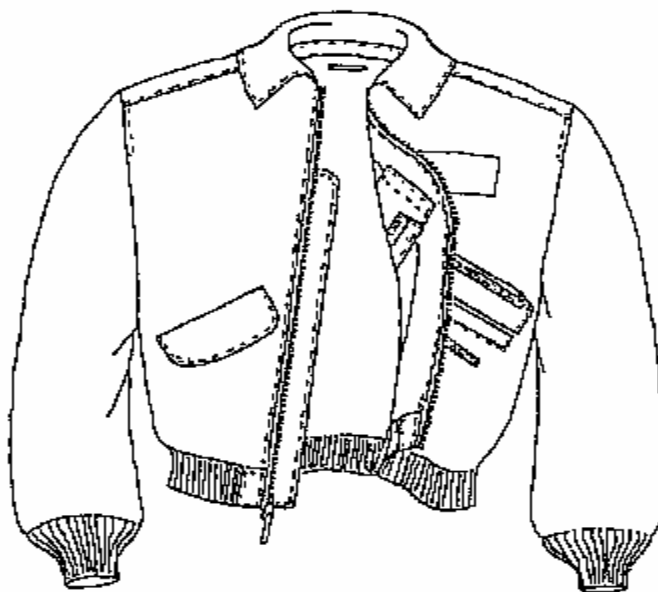


FIGURE 1. Front view of jacket, security forces, cold weather

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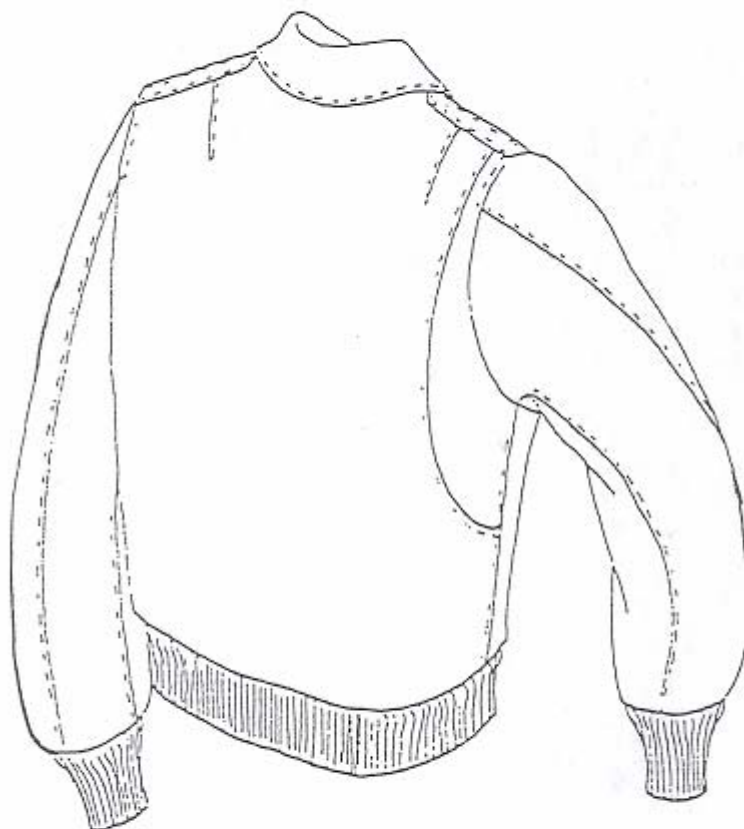


FIGURE 2. *Back view of jacket, security forces, cold weather*

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Concluding material

Custodians:
Air Force – 11

Preparing activity:
DLA -CT
(Project No.8415-0271)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at www.dodssp.daps.mil