

INCH POUND

MIL-DTL-31009
01 June 1995

DETAIL SPECIFICATION

HOOD, COLD WEATHER, SECURITY POLICE

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

1. SCOPE

1.1 Scope. This specification establishes requirements of a cold weather hood for the Security Police that coordinates with the Jacket, Cold Weather, Security Police MIL-DTL-31008.

1.2 Classification. The hood shall be furnished in one of the following sizes as specified (see 6.4).

Small	Large	Extra extra large
Medium	Extra large	

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Defense Personnel Support Center, Clothing and Textiles Directorate, Attn: DPSC-FQSC, 2800 South 20th Street, Philadelphia, PA 19145-5099, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8415.

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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 shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.4).

SPECIFICATIONS

FEDERAL

A-A-50199	Thread, Polyester Core, Cotton- or Polyester-Covered
DDD-L-20	Label, For Clothing, Equipment, and Tentage (General Use)
V-F-106	Fasteners, Slide, Interlocking
KK-L-2004	Leather, Horsehide, Chrome Tanned, for Gloves, Garment, and Equipage.
UU-P-268	Paper, Kraft, Untreated, Wrapping
V-B-871	Button, Sewing Hole, and Button, Staple, (Plastic)
T-T-881	Twine, Cotton, Seine

MILITARY

MIL-P-116	Preservation, Methods of
MIL-B-371	Braid, Textile, Tubular
MIL-C-6590	Cloth, Pile (Synthetic Mouton, Knitted)
MIL-F-21840	Fastener Tapes, Hook and Loop, Synthetic
MIL-C-44187	Cloth, Laminated, Waterproof and Moisture Vapor Permeable
MIL-C-44296	Cloth, Fusibles

STANDARDS

FEDERAL

FED-STD-191	Textile Test Methods
FED-STD-751	Stitches, Seams, and Stitching

MILITARY

MIL-STD-129	Marking for Shipment and Storage
MIL-STD-147	Palletized Unit Loads

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MIL-STD-1667

Provisions for Evaluating Quality of
Hoods, Cold Weather, Extreme Cold
Weather and Flyers

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

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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 solicitation.

U.S. Postal Manual

(Copies of the manual may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-0001.)

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 shall be 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 6.4).

AMERICAN SOCIETY FOR TESTING AND MATERIALS

ASTM-D 1974 Standard Practice for Methods for Closing,
Sealing and reinforcing Fiberboard Boxes

ASTM-D 3951 Standard Practice for Commercial Packaging

(Applications for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1187.)

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AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)

ANSI/ASQC Z1.4 - Sampling Procedures and Tables for
Inspection by Attributes

(Copies should be obtained from the American National Standards Institute, 1430 Broadway, New York, NY 10018-3308.)

(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

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.

3. REQUIREMENTS

3.1 First article. When specified (see 6.4 and 6.5), a sample shall be subjected to first article inspection in accordance with 4.3.

3.2 Materials. It is encouraged that recycled materials be used when practical as long as they meet the requirements of this document.

3.2.1 Basic material. The basic material for the outer shell, the hood bottom edge, and the cowl flaps shall conform to MIL-C-44187 and shall be USAF Blue, Shade No. 1613.

3.2.2 Mouton lining. The lining for the hood shall be dyed to match the color of the basic fabric, and shall conform to type II of MIL-C-6590.

3.2.3 Drawstrings. The cord or the drawstrings shall conform to type III of MIL-B-371, and shall be dyed to match the color of the basic fabric. Each drawstring shall be 23 inches (plus or minus 1 inch) long. The ends of the drawstrings shall be tipped or impregnated with cellulose acetate or cellulose acetate butyrate. The length of the tipping or impregnation shall be 5/8 inches (plus or minus 1/8 inch).

3.2.4 Drawstring reinforcements. The leather for the drawstring reinforcements shall conform to type I; class 2; 1-1/2 to 3-1/4 ounces of KK-L-2004, color black.

3.2.5 Buttons. The buttons for attaching the hood to the jacket shall conform to type II, class D, styles 20 and 21, size 30 line of V-B-871 and shall be DOD Button Shade Blue, CA 62002.

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3.2.6 Thread. The polyester core thread used for seaming and stitching the hoods shall conform to type I of A-A-50199 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 Blue AT, CA 66060.

3.2.7 Fastener tapes. The hook and loop fastener tape shall be Black 3230 conforming to type I or type IA, class I of MIL-F-21840.

3.2.8 Fusible interlining. The fusible interlining used on the cowl flaps shall be type V, style B, class 1 of MIL-C-44296 and the color shall be black.

3.2.9 Slide fasteners. The slide fastener for the hood separation shall conform to type I, style 3, size M of V-F-106 and of Table I of this document. 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 when tested as specified in 4.4.1.1.

TABLE I. Slide fastener

Hood separation size	Type	Style	Size	Length
Small	I	3	M	16-1/2 inches
Medium	I	3	M	17 inches
Large	I	3	M	17-1/2 inches
Extra large	I	3	M	18 inches
Extra extra large	I	3	M	18-1/2 inches

3.2.10 Cord. The cord beading used in the edges of the hood separation slide fastener cover shall conform to type I, No. 18 of T-T-881.

3.2.11 Seam sealing tape. The tape for covering and sealing all designated seams and stitching shall be cut in $1 \pm 1/16$ inch wide strips from USAF Blue, Shade No. 1613 laminated cloth fabricated in layers as follows:

Layer 1 Nylon tricot weighing 1.5 ± 0.3 ounces per square yard

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Layer 2 Microporous expanded polytetrafluoroethylene film weighing 0.6 +0.2 or -0.1 ounces per square yard

Layer 3 Adhesive, thermoplastic not less than 5.4 mils thick

3.2.11.1 Alternative urethane acrylic seam sealing tape. The alternative seam sealing tape for the optional polyolefin microporous laminated basic material of MIL-C-44187 shall meet the following characteristics:

- A. Width, inches 1 (\pm 1/16)
- B. Nylon knit backing: nylon tricot fabric weighing 1.2 ounces per sq. yd. minimum
- C. The middle layer shall be thermoset crosslinked urethane acrylic barrier weighing 1.0 oz./sq. yd. minimum. The outer layer shall consist of a low temperature polyurethane adhesive with 240 degrees F (nominal) melt point not less than 7.5 mils thick. (See 6.8 for recommended settings. Under no circumstances shall the tape/alternate polyolefin material combination be taped on a tape machine incorporating a nozzle heat output in excess of 600 degrees centigrade and without an independent nozzle air pressure control.)

3.2.12 Heat sealing. Seams and stitching, as indicated in Table III, shall be sealed with seam-sealing tape on the innerside of the hood. The entire width of the seam tape shall be hot-air sealed over the seam or stitching. All seam tapes shall be applied without tension and shall be applied so that a minimum of 3/16 inch overlap is on both sides of the sewn seam. Every effort shall be made to avoid tape end joints where the tape passes over taped seams on the jacket. All seam tapes shall overlap a minimum of 3/4 inch at joining points. Sealed seams and stitchings shall show no leakage when tested as specified in 4.4.1.1 and 4.5.2.

3.2.13 Labels. Each hood shall have a combination size, identification, and an instruction label. The label shall show colorfastness to dry cleaning in accordance with DDD-L-20. The label shall be centered on the hood bottom edge within 1/2 inch, and sewn on all four sides 1/16 inch from edge, in such a manner that the stitches do not show on the back exterior of the outershell.

3.2.13.1 Combination size, identification, and instruction label. The label shall conform to type VI, class 14 of DDD-L-20, and shall be 1-1/4 inch by 3 inches. The label shall contain the following information:

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Size:

Hood, Cold Weather, Security Police

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Contract No. DLA-100-00-0-0000 (example)

Stock No. 8415-00-000-0000 (example)

Contractor's Name:

PROFESSIONALLY DRY CLEAN ONLY USING A CLEAR DISTILLED
SOLVENT RINSE

NOTE: The contractor shall insert the applicable information.

3.2.13.2 Label/tag. Each item shall be individually bar-coded with the type VIII, class 17 label/tag of DDD-L-20. This label/tag shall be located so that it is completely visible on the item when it is folded and/or packaged as specified and so that it causes no damage to the item.

3.3 Design. The hood shall be detachable (button), mouton lined, with a drawstring adjustment, a slide fastener separation, and a cowl flap. This hood is intended to be worn with the security police winter jacket.

3.4 Patterns. Standard patterns to be used to cut working patterns will be furnished by the Government. 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 hood 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 Part	Parts Cut
Basic fabric (see 3.2.1)	Hood front panel	2
	Hood side panel	2
	Hood center panel	1
	Cowl flap	4
	Hood bottom edge	2
	Throat tab	2
	Slide fastener cover	2
Fusible interlining (see 3.2.8)	Cowl flap	4
Mouton (lining) (see 3.2.2)	Hood front panel	2
	Hood side panel	2
	Hood center panel	1

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3.5 Stitches, seams, and stitchings. Stitches, seams, and stitchings used in the construction of the hood shall conform to FED-STD-751. 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 not result. Thread tension shall be maintained so that there will be no tight or loose tension. The looper thread (underthread) of stitch type 401 shall be on the inside of the hood.

3.5.1. 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 stitchings, shall be backtacked not less than 1/4 inch. The ends of stitching on labels shall be overlapped not less than three stitches.

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 that 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 prestitching, 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 restitching in the required manner. 1/

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

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3.5.1.3 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. Unless otherwise specified herein, a tolerance of ± 2 stitches per inch will be permitted for stitches per inch.

3.5.2 Corded beading in slide fastener covers. The edges of the slide fastener covers shall have a cord beading (see 3.2.10). 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 Automatic equipment. Minor modifications are permitted where necessary when using automatic equipment. These modifications shall not alter the dimensional, serviceability or appearance requirements cited in this document.

3.5.4 Repairs. Repairing the hood by mending, patching, or darning is not allowed and at no time is the removal of heat sealing tape permitted. Repair of missing yarns in the tricot knit on the inside of the hood up to 15 inches long is allowed. Up to three repairs totaling 15 inches in length shall be allowed. Seam tape may also be used to repair areas where the original tape does not overlap sewn seams by the minimum 1/8 inch on both sides. The seam dimensions as above shall apply. No more than two layers of seam-sealing tape shall be permitted in any one area.

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TABLE III. Manufacturing operations

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
1.	<u>Cutting.</u>			
	<p>a. Cut hood 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 or 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. The panels of the hood lining (mouton) may be cut in either the warp or the filling direction.</p> <p>b. The hood bottom edge may be cut from ends. Except for parts that may not be cut from ends, all parts made of the basic fabric shall be cut from one piece of material. Parts cut from ends shall approximate the shade of the other parts of the hood.</p>			
2.	<u>Replacement of defective or damaged parts.</u>			
	<p>Care shall be taken during the spreading, cutting, and manufacturing operations to exclude or replace any material that contains material defects or workmanship damages that could affect the appearance or serviceability of the hood.</p>			
3.	<u>Component marking.</u>			
	<p>Except for parts cut from ends, all parts of the basic fabric and the mouton shall be marked, ticketed, or bundled to insure a uniform shade and size throughout the hood.</p>			
4.	<u>Fuse parts.</u>			
	<p>Fuse interlining to cowl flaps (four parts).</p>			

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TABLE III. Manufacturing operations - Continued

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
5.	<u>Join hood lining (mouton).</u>			
a.	Join the front panels to the side panels of the hood lining with a 1/8 seam on a fur machine.	301 or 501	SSa-1	9
b.	Join the center panel to the panel of the hood lining with a 1/8-inch seam on a fur machine.	301 or 501	SSa-1	9
6.	<u>Join cowl flaps to mouton.</u>			
a.	Join the cowl flaps to the mouton lining with a single row of stitching 1/2 inch from the edge.	301 or 401	LSq-2(a)	8-10
b.	Turn and raise stitch on cowl strip with a single row of stitching 1/4 inch from the edge.	301 or 401	LSq-2(b)	8-10
c.	Join the hood bottom edge at the center back with a single row of stitching 1/2 inch from the edge.	301 or 401	SSz-3(a)	8-10
d.	Open the seam and raise stitch with a double row of stitching 1/4 inch from each folded edge.	301 or 401	SSz-3(b)	8-10
e.	Position label on either side of center joining seam of hood bottom edge so that the buttonholes will not go through label. Stitch on all sides 1/16 inch from the edge.	301	SSa-1	12
f.	Join the hood bottom edge to the mouton lining with a single row of stitching 1/2 inch from the edge.	301 or 401	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
6.	<u>Join cowl flaps to mouton</u> - contd.			
	g. Turn and raise stitch with a single row of stitching 1/8 inch from the edge.	301 or 401	LSq-2(b)	8-10
	h. Fold the material for the corded beading in the edges of the slide fastener cover lengthwise at the pattern marks. Insert the corded beading in the fold, and stitch close to the corded beading with a single row of stitching so that the beaded edges will be flush with each other when the slide fastener is closed.	301	OSb-1	8-10
	i. Position the slide fastener cover on the slide fastener tapes, with the beaded edge covering the scoops, and join with a single row of stitching 1/4 inch from the edge of the scoops.	301	SSa-1	8-10
	j. Position the top panel (mouton) cut-out on the slide fastener tape opposite the cover and 5/16 inch from the scoops, and join with a single row of stitching 1/16 inch from the edge all around the cut-out. The slide fastener shall be attached without excessive length of tape put in at any point.	301	SSa-1	8-10
7.	<u>Prepare hood outer shell.</u>			
	a. Join the front panels to the side panels of the hood with a single row of stitching 3/8 inch from the edge.	301 or 401	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
7.	<u>Prepare hood outer shell</u> - contd.			
b.	Turn and raise the seams on the front panels of the hood with a single row of stitching 1/4 inch from the edge.	301 or 401	LSq-2(b)	8-10
c.	Join the side panels to the center panel of the hood with a single row of stitching 3/8 inch from the edge.	301 or 401	LSq-2(a)	8-10
d.	Turn and raise the seam on the center panel of the hood with a single row of stitching 1/4 inch from the edge.	301 or 401	LSq-2(b)	8-10
e.	Lay heat sealing tape over center and side panel seams on inside and heat seal.			
f.	Sew two 1-inch-square leather reinforcement pieces to each end of the front panel of the hood, centered at the pattern marks, with a single row of stitching 1/16 inch from the edge all around to the face side of the material. Sew a second row of stitching 1/4 inch from the edge to reinforce the hole.	301	LSbj-2	8-10
g.	Punch a 1/4-inch-diameter hole through the center of each leather reinforcement and the hood outer shell.			
8.	<u>Join cowl to hood.</u>			
a.	Sew the cowl shell to the hood front panel in accordance with the notches, with a single row of stitching 1/2 inch from the edge.	301 or 401	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
8.	<u>Join cowl to hood</u> - contd.			
	b. Turn and raise stitch on the cowl with a single row stitching $1/4$ inch from the edge.	301 or 401	LSq-2(b)	8-10
	c. Split the center panel of the hood up to $1/2$ inch from the pattern mark.			
	d. Position and bartack a 23-inch-long drawstring to each panel seam, $1/2$ inch upward from the cowl seam, on the inside $1/2$ inch from the end of the drawstring with a $1/2$ -inch-wide bartack.	bartack		28 stitches per bartack
	e. Thread the free ends of the drawstrings through the holes in the leather reinforcement openings. Knot each free end of the drawstring approximately 2 inches from the tipped end.			
	f. Join a 1-inch by 3-inch piece of loop fastener tape to the right side of the hood outer shell, centered over the cowl flap seam and $1-1/8$ inches from the lower finished edge. Stitch $1/16$ inch from edge on all four sides.	301	SSa-1	8-10
9.	<u>Join hood outer shell to hood lining.</u>			
	a. Join the hood outer shell to the hood lining with a single row of stitching $1/2$ inch from the edge.	301	LSq-2(a)	8-10
	b. Turn and raise stitch with a single row of stitching $1/4$ inch from the 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
9.	<u>Join hood outer shell to hood lining</u> - contd.			
	c. Make a second row of stitching 1 inch from the bottom edge of the hood and the cowl.	301	SSa-1	8-10
	d. Make a channel for the drawstring by stitching 1 inch from the cowl seam extending from the center panel to approximately 1/2 inch above the top of the leather reinforcement piece.	301	SSa-1	8-10
10.	<u>Prepare throat tab.</u>			
	a. Join the throat tab with a single row of stitching 1/4 inch from the edge.	301 or 401	SSe-2(a)	8-10
	b. Turn and raise stitch with a single row of stitching 1/4 inch from the edge.	301	SSe-2(b)	8-10
	c. Join a 1-inch by 1-inch piece of the hook fastener tape to the throat tab (outside), at the pattern marks, with a single row of stitching 1/16 inch from the edge on all four sides.	301	LSbj-1	8-10
	d. Join a 1-inch by 3-inch piece of the hook fastener tape to the throat tab (inside), at the pattern marks, with a single row of stitching 1/16 inch from the edge on all four sides.	301	LSbj-1	8-10
	e. Join a 1-inch by 3-inch piece of the loop fastener tape to the left side of the hood outer shell, centered over the cowl flap seam and 1-1/8 inches from the lower finished edge.	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
10.	<u>Prepare throat tab</u> - contd.			
e.	Stitch 1/16 inch from the edge on all four sides. The length from the edge of the cowl to the bottom edge of the front panel shall be approximately 5-1/2 inches long.			
11.	<u>Attach throat tab.</u>			
a.	Turn the raw edge of the throat tab under 1/4 inch, and center it on the right side of the cowl and front panel seam, the bottom folded end on the stitching 1 inch from the end of the cowl, and join with a double row of stitching, 1/16 inch from the folded edge, 1/4-inch gage. The 1-inch by 1-inch piece of the hook fastener tape shall face down to match the 1-inch by 3-inch piece of the loop fastener tape positioned on the front panel.	301	LSd-2	8-10
12.	<u>Make buttonholes in hood.</u>			
a.	Mark and make four, straight-type buttonholes 1/2 inch from the bottom edge of the hood to fit the the 30-line buttons and securely tack the ends. Position the buttonholes so that 1 buttonhole is centered (plus or minus 1/8 inch) across each front and side panel joining seam and so that two buttonholes are positioned on the center panel 3/8 inch (plus or minus 1/8 inch) from the side panel and center panel joining seam.	button- hole		52 stitches per button- hole

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TABLE III. Manufacturing operations - Continued

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch
13.	<u>Prepare hood for packaging.</u>			
	a. Insert the four buttons for attaching the hood to the jacket (see 3.2.5) in a poly bag.			
	b. Using a string, attach the bag containing the buttons to the slide fastener loop on the hood.			
14.	<u>Clean hood.</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 Manufacturing operations requirements. The hood 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 hood 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.

3.6.1 Construction. The hood shall be constructed in accordance with Table III. However, the manufacturer will not be required to follow the exact sequence of operations as listed herein. Figures 1 and 2 are furnished for information purposes only. When inconsistencies exist between the written specification and the figures, the written specification shall govern.

3.6.2 Shade and size marking. The cut parts of the hood shall be marked to insure 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 the adhesive mass adheres to the material upon removal of the tickets
- d. Any marking medium which would tend to leave a permanent mark

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3.6.3 Fusing press operating procedures and conditions. A single layer of fusible interlining shall be fused to a single layer of basic material on a dry, electrically heated fusing press which has the capacity of controlling and retaining pressure, dwell time, and temperature for a minimum of 8 hours. Pair or sandwich fusing which can create differential shrinkage, stitching, and uneven bonding shall not be permitted. A steam source fusing press shall not be allowed for any initial fusing operations. For optimum results, the fusible material manufacturer's recommendations for fusing dwell time, pressure and temperature, base upon the fusing equipment used and basic material being fused, shall be utilized. Basic preproduction and production maintenance procedures, including a fusing press information chart, shall be required to assure proper fusing press performance relative to temperature control, evenness in pressure head or roller contact, dwell time and cleanliness.

3.7 Finished measurements. The finished measurements of the hood shall conform to Table IV.

TABLE IV. Finished measurements (inches)

Size	Neck Length
Small	19-3/4
Medium	21-1/4
large	22
Extra large	23-1/4
Extra extra large	24-1/4
Tolerance	$\pm 1/4$

3.7.1 Methods of measuring. Measure the neck length of the hood at the bottom on the inside back bottom facing from finished edge to finished edge.

3.8 Workmanship. The hood shall be uniform in quality and shall be free from irregularities and occurrence of defects shall not exceed the acceptance criteria established herein.

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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 (examinations and tests) 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 specification where such inspections are deemed necessary to ensure 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.

4.1.2 Certificates of compliance. Where certificates of compliance are submitted, the Government reserves the right to check test such items to determine the validity of the certification.

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

1. First article inspection (see 4.3)
2. Quality conformance inspection (see 4.4)

4.3 First article inspection. When required (see 3.1 and 6.4), the first article shall be inspected as specified in 4.4.3.1 and 4.4.3.2 for compliance with design, construction, workmanship and dimensional requirements. 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 ANSI/ASQC Z1.4. The acceptance criteria as specified in the contract or purchase order shall be binding (see 6.5).

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4.4.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected in accordance with all the requirements of referenced specifications, drawings, and standards unless otherwise excluded, amended, modified, or qualified in this specification or applicable procurement documents.

4.4.1.1 Component testing. In addition to any testing required by 4.4.1, components listed in Table V shall be inspected for the characteristics noted. The methods of testing specified in FED-STD-191 and as listed in Table V shall be followed. 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

TABLE V. Component tests

<u>Component</u>	<u>Characteristics</u>	<u>Requirement Paragraph</u>	<u>Test Methods</u>
Slide fastener tape	Shrinkage	3.2.9	5556.1 <u>1/</u>
Seam test	Hydrostatic test	3.2.12	5516

1/ Cotton procedure for 5 launderings.

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 pattern conforms to the Government patterns in all respects. Whenever nonconformance is noted, corrections shall be made to the items affected and to the lot in process. Items which cannot be corrected shall be removed from production.

4.4.3 End item examination. Examination of the end item shall be in accordance with 4.4.3.1 and 4.4.3.2.

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4.4.3.1 Visual examination. The end item shall be examined for the defects listed in Table VI and the applicable defects listed in MIL-STD-1667. If inconsistencies exist between MIL-STD-1667 and the requirements in this specification, this specification shall govern. The lot size shall be expressed in units of hoods. The sample unit shall be one hood.

4.4.3.2 Dimensional examination. Hoods shall be examined for conformance to the dimensions specified in Table IV. The lot size shall be expressed in units of hoods. The sample unit shall be one hood.

4.4.4 Inspection of packaging. Except when commercial packaging is specified, the sampling and inspection of the preservation and interior package marking shall be in accordance with the groups A and B quality conformance inspection requirements of MIL-P-116. The sampling and inspection of the packing for shipment and storage shall be in accordance with the quality assurance provisions of the applicable container specification shown in Section 5. The inspection of marking for shipment and storage shall be in accordance with MIL-STD-129. The inspection of commercial packaging shall be as specified in the contract (see 6.4).

4.4.5 Palletization examination. An examination shall be made to determine that 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 inspected lot.

<u>Examine</u>	<u>Defect</u>
Finished dimensions	Length, width, or height exceeds specified maximum requirements.
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.

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TABLE VI. Classification of defects

Defect	Major	Minor A	Minor B
1. <u>Heat sealed seams.</u>			
a. Any seam tape not located as specified.		201	
b. Any required stitching not covered by seam tape.		202	
c. Any needle punctures that have not been repaired using heat sealing tape.		203	
2. <u>Repairs.</u>			
a. Any heat sealing repairs extending beyond 15 inches in length.		204	
b. More than three repairs on any one item.		205	
3. <u>Seam tape adhesion.</u>			
a. Seam tape lifting off fabric within 3/4 inch of seam.		206	
b. 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.		207	
4. <u>Fusible material.</u>			
a. Omitted from cowl flaps.	101		
b. Partial or complete delamination on any fused component.	102		
c. Bubbling on any fused component.	103		
d. Any strike through or bleed through.	104		
e. Any resin transfer on any fused component.	105		
f. Any resin transfer on any non-fused component.	106		

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TABLE VI. Classification of defects - contd.

Defect	Major	Minor A	Minor B
5. <u>Label.</u>			
a. Label missing, incorrect, illegible, misplaced, size not as specified or label interfering with buttonhole(s).	107		
b. Bar code omitted, or not readable by scanner.		208	
c. Human-readable interpretation (HRI) omitted or illegible.		209	
d. Not visible on folded packaged item.		210	
e. Causes damage to the item.	108		
6. <u>Cord.</u>			
a. Beaded edges not covering scoops of slide fastener.		211	
b. Corded beading edges not flush with each other when slide fastener is closed			301
7. <u>Hook and loop fastener tape.</u>			
a. Omitted, misplaced, not the specified size.	109		
b. Omitted or not serving the purpose intended.	110		

4.5 Methods of inspection

4.5.1 Hydrostatic resistance test. The hydrostatic resistance of sealing seam areas of the hood shall be tested in accordance with Method 5516 of FED-STD-191, 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 used). The hydrostatic head shall be 50 centimeters pressure (or 0.8 psi) for 3 minutes. The hood shall be tested at a minimum in the following areas; straight seam, curved seam and seam intersection. The water shall contact the outside of the garment. The sealed seam shall be centered in the 4-1/2 inch diameter test area of 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 method 5516 of FED-STD-191 shall be used.

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4.5.2 Leakage test. The hood shall be tested as specified in 4.5.1 for conformance to the leakage requirement specified in 3.2.12. The lot size shall be expressed in units of hoods. The sample unit shall be one hood.

5. PACKAGING

5.1 Packaging. Packaging shall be level A or C as specified (see 6.4).

5.1.1 Level A. The hood opening slide fastener shall be fully open, and the hook and loop fastener tape shall be properly engaged.

- a. Place the hood face up in a fully outstretched position.
- b. Fold the hood in half lengthwise.
- c. Fold in half by bringing the top to the bottom. The approximate size of the folded hood shall be 11-1/2 by 14-1/2 inches.

Each folded hood shall be placed in a clear polyethylene bag of 0.00125 +/- .00025. Seams and closure of the polyethylene bag shall be by means of heat seal, with a 1/4 inch hole in one corner to allow excess air to escape. The heat sealed seams shall be straight, continuous, and parallel to each other and the edges of the polyethylene bag. The closing heat sealed seams of the bag shall be as close as possible to the edge of the bag. No hood shall be deformed, distorted, or bent in the bagged condition nor shall the polyethylene bag be damaged. No part of any hood shall be caught in any heat sealed seam. As an alternate, the final closure of the bag may be accomplished by use of a tuck or reverse flap. The approximate flat size of the polyethylene bag shall be 13 by 17 inches.

5.1.2 Level C. The hoods shall be folded as packaged to afford the minimum degree of protection necessary to prevent deterioration or damage during shipment under normal environmental conditions and commercial modes of transportation.

5.2 Packing. Packing shall be level A, B or C as specified (see 6.3).

5.2.1 Level A. Twenty-four hoods, packaged as specified in 5.1.1, shall be packed as specified in 5.2.2, except that the fiberboard container shall be Weather Resistant Class, Variety SW, Grade V3c or V3s. In addition, each container shall be reinforced with flat steel strapping or tape banding in accordance with the appendix to ASTM-D 1974.

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5.2.2 Level B. Twenty-four hoods, packaged as specified in 5.1.1, shall be packed within a fiberboard container, approximately 23-1/2 by 15 by 15 inches, conforming to ASTM-D 1974, Style OSC, Type CF or SF, Domestic Class, Variety SW, Grade 275. The bagged hoods shall be placed in the container as follows:

- a. In two equal tiers.
- b. The long dimension of the folded hood shall be parallel to the end panels of the container.
- c. Every other hood shall be in a reverse position to the one on the top of it.

The top and bottom of the contents, of each shipping container, shall be completely covered with a sheet of 30 pound minimum basic weight kraft paper conforming to UU-P-268, Grade B. The body joint and the top and bottom flaps shall be firmly glued together as specified in ASTM-D 1974. The fiberboard containers shall not contain any metal fastenings or stitches. Each container shall be constructed and closed in accordance with the appendix to ASTM-D 1974.

5.2.3 Level C. The hood, preserved as specified in 5.1, shall be packed in a manner to ensure carrier acceptance and safe delivery to destination at the lowest transportation rate for such supplies. The quantity per shipping container shall be the same as that normally used by the contractor for retail distribution. Containers shall comply with the US Postal Manual, Uniform Freight Classification Rules or National Motor Freight Classification Rules, as applicable.

5.3 Palletization. When specified (see 6.4) hoods 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 methods C and D or film bonding methods F or G. Pallet patterns shall be in accordance with the appendix of MIL-STD-147. The pallet shall be 4-way, type I, class 1, style 1, 1A, or 1B, size A, wood group I, II, III, or IV of MIL-P-15011, or 4-way entry, type IV, V, or VIII, class 1, style A, size 2, wood group I, II, III, or IV, grade A of NN-P-71. Loads shall be interlocked 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.

5.4 Marking. In addition to any special marking required by the contract or purchase order, unit packages, shipping containers, and palletized unit loads shall be marked in accordance with MIL-STD-129 or ASTM-D 3951 as applicable (see 6.4).

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5.4.1 Bar code markings. Bar code markings, when specified (see 6.4), shall be in accordance with MIL-STD-129.

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 hoods are intended to be worn with the security police jacket in cold temperatures by Department of Defense personnel.

6.2 Succession. This specification replaces PD YAGC-89-5.

6.3 Standard sample. For access to standard sample, address the procuring activity issuing the invitation for bids.

6.4 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number and date of this specification.
- b. Size required (see 1.2.).
- c. Issue of DODISS to be cited in the solicitation and, if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
- d. When first article inspection is required, (see 3.1) the item will be tested and should be a first article sample. The contracting officer should include specific instructions in acquisition documents regarding arrangement for examinations, quantity, and testing and approval.
- e. Selection of applicable levels of preservation and packing (see 5.1 and 5.2).
- f. Weather-resistant grade fiberboard shipping containers for Level B packing when required (see 5.2.2).
- g. Palletization when required (see 5.4).
- h. Bar code markings when required (see 5.5.1).

6.5 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.

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6.6 Acceptance criteria. The acceptance criteria below are recommended for use and unless otherwise specified are in accordance with ANSI/ASQC Z1.4.

6.7 Subject term (key word) listing.

clothing, specialized
clothing, waterproof
protection, cold weather

Custodian:
Air Force - 45

Preparing activity:
DLA - CT

Review Activities
Air Force - 32, 99

Project No. 8415-0949

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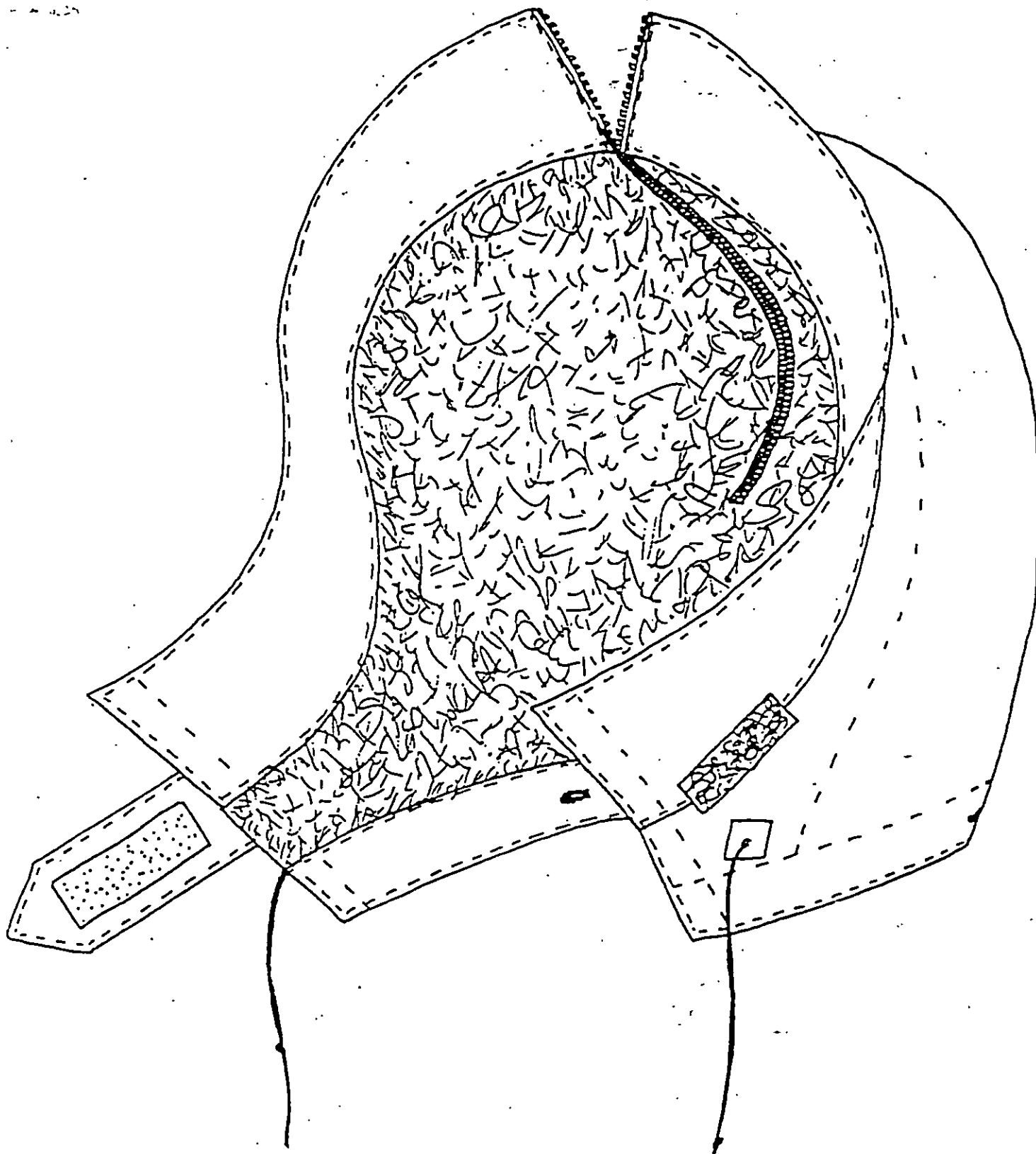


FIGURE 1. Hood, Security Police, Cold Weather (front/side view)

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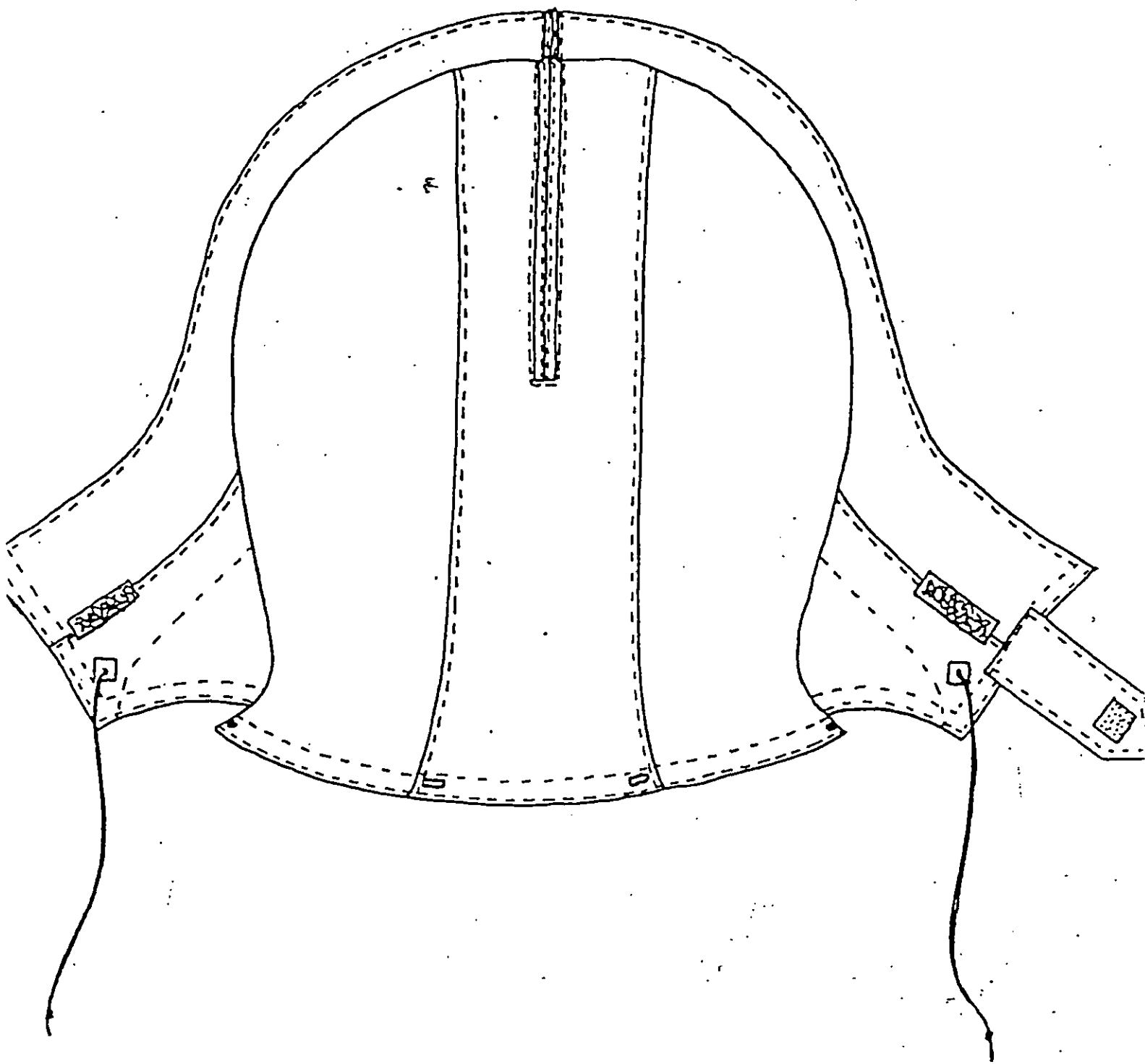


FIGURE 2. Hood, Security Police, Cold Weather (back View)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of 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.

I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER MIL-DTL-31009	2. DOCUMENT DATE (YYMMDD) 950601
3. DOCUMENT TITLE HOLD; COLD WEATHER, SECURITY POLICE		
4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)		
5. REASON FOR RECOMMENDATION		
6. SUBMITTER		
a. NAME (Last, First, Middle Initial)	b. ORGANIZATION	
c. ADDRESS (Include Zip Code)	d. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON (If applicable)	7. DATE SUBMITTED (YYMMDD)
8. PREPARING ACTIVITY		
a. NAME DPSC-FQSC 2800 S 20th Street	b. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON	
c. ADDRESS (Include Zip Code) 2800 S 20th Street Philadelphia, PA 19145-5099	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2340 AUTOVON 289-2340	