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SUPERSEDING
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MILITARY SPECIFICATION

HOOD, EXTREME COLD WEATHER, W/SYNTHETIC FUR RUFF, OG-107

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

1. SCOPE

1.1 Scope. This document covers a hood with synthetic fur ruff, of one type and one size.

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 specification 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.

SPECIFICATIONS

FEDERAL

A-A-203	-	Paper, Kraft, Untreated
V-B-871	-	Button, Sewing Hole, and Button, Staple, (Plastic)
V-T-280	-	Thread, Gimp, Cotton, Buttonhole
KK-L-241	-	Leather, Cattlehide, Rigging
DDD-L-20	-	Label: For Clothing, Equipage and Tentage, (General Use)
PPP-B-636	-	Boxes, Shipping, Fiberboard

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

AMSC N/A FSC 8415

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MILITARY

MIL-B-371 - Braid, Textile, Tubular
MIL-T-3530 - Thread and Twine: Mildew Resistant or Water Repellent Treated
MIL-C-3924 - Cloth, Oxford, Cotton Warp and Nylon Filling, Quarpel Treated
MIL-F-10884 - Fasteners, Snap
MIL-C-11065 - Cloth, Flannel, Wool and Nylon, 16-Ounce, Shrink Resistant
MIL-E-20652 - Eyelets, Metallic, and Eyelet Washers, Metallic, General Specification For
MIL-F-21840 - Fastener Tapes, Hook and Pile, Synthetic
MIL-L-35078 - Loads, Unit: Preparation of Semiperishable Subsistence Items; Clothing, Personal Equipment and Equipage; General Specification For
MIL-T-43548 - Thread, Polyester Core: Cotton-, Rayon-, or Polyester- Covered
MIL-T-43566 - Tape, Textile, Cotton or Polyester, General Purpose, Natural or in Colors
MIL-C-43824 - Cloth, Synthetic Fur, Knitted

STANDARDS

FEDERAL

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

MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129 - Marking for Shipment and Storage
MIL-STD-147 - Palletized Unit Loads
MIL-STD-731 - Quality of Wood Members for Containers and Pallets
MIL-STD-1667 - Provisions of Evaluating Quality of Hoods, Cold Weather, Extreme Cold Weather and Flyers

(Copies of specifications, standards, and handbooks required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)

* 2.2 Other publications. The following documents form a part of this specification 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 specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS shall be the issues of the nongovernment documents which are current on the date of the solicitation.

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AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

D 3951 - Standard Practice for Commercial Packaging

(Copies should be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1187.)

(Nongovernment standards and other publications are normally available from the organizations which prepare or which 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 specification and the references cited herein, the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

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

3.2 Materials.

3.2.1 Basic material. The basic material for the hood shall be cotton warp and nylon filling oxford, quarpel treated, dyed Olive Green 107 conforming to class 2 of MIL-C-3924.

* 3.2.1.1 Dyed seconds. Provided that the shade closely approximates OG-107, dyed seconds may be used for the brim, hood skirt, and storm curtain ply. These seconds shall conform to all the physical, color factors, and water repellency requirements of MIL-C-3924 except requirements for lightfastness.

3.2.2 Braid. The braid for drawcords, pull cords and button loops shall be 4/32 inch diameter cotton tubular braid, Olive Green 107, conforming to type IV, class 2 of MIL-B-371. The ends of drawcords and pull cords shall be dipped or impregnated with a cellulose acetate or cellulose butyrate to prevent fraying (see 4.2.1.2).

* 3.2.3 Lining. The lining for the hood and skirt shall be a 16 ounce wool and nylon flannel conforming to MIL-C-11065. Dyed seconds, provided that their shade closely approximates OG-108, may be used for the hood and skirt lining. These seconds shall conform to all the physical and colorfastness requirements of MIL-C-11065 except requirements for lightfastness.

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* 3.2.4 Fastener tape. The tape fasteners for curtain closure shall be Olive Green 106, 2 inch wide pile and 1-1/2 inch wide hook conforming to type II, class 1 of MIL-F-21840.

* 3.2.5 Thread. The thread for seaming and stitching shall be polyester/cotton-covered, ticket Nos. 30, 3 ply and 50, 2 or 3 ply, conforming to MIL-T-43548. The thread shall be dyed Olive Drab S-1 (C.A. 66022). The polyester/cotton-covered thread shall be water repellent treated to conform to the requirements of type II, class 3 of MIL-T-3530. Lubrication of the quarpel treated sewing thread by any means in the end item fabricator's plant prior to or during seaming is prohibited.

3.2.5.1 Colorfastness. The dyed thread shall show fastness to light and laundering after 3 cycles equal to or better than the standard sample. When no standard sample is available, the dyed thread shall show "good" fastness to light and laundering.

3.2.6 Gimp. The reinforcement for buttonholes shall be cotton gimp thread, Olive Drab S-1 (C.A. 66022), conforming to type I or II, size No. 8 of V-T-280.

3.2.6.1 Colorfastness. The dyed gimp shall show fastness to laundering after 3 cycles equal to or better than the standard sample. When no standard sample is available, the dyed gimp shall show "good" fastness to laundering (after 3 cycles).

3.2.7 Labels. Each hood shall have an identification label and an instruction label conforming to type VI of DDD-L-20. The color of the label cloth shall be Medium Green (see 6.4). The labels shall show fastness to laundering.

3.2.7.1 Identification label. The identification label shall conform to class 1.

3.2.7.2 Instruction label. The instruction label shall conform to class 3 containing the following information:

HOOD, EXTREME COLD WEATHER,
W/SYNTHETIC FUR RUFF, OG-107

1. Attachment to Field Coat or M-65 Parka:

   a. Fasten skirt buttonholes to 4 buttons on inside of garment (only 2 on coat).
   b. Turn garment and fasten 2 storm curtain buttons to collar.
   c. Fasten side storm curtain buttonholes to shoulder loop buttons on coat.

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d. Secure stud on skirt to socket on inside of garment.
e. Secure loop to coat button. Not required for Parka.

2. Attachment to (older type) M-51 Parka (with attached hood):

a. Align storm curtain and skirt buttonholes and fasten to 4 inside parka buttons.
b. Pull parka hood over insulating hood and secure crown buttons. Adjust parka hood drawstrings.
c. This hood is large enough for wear over steel helmet. Parka hood is not. Omit step b. when wearing helmet.

3. Use of hood (over bare head, cap, or helmet):

a. Adjust hood drawstrings for comfort, securing keeper to maintain fit. Adjust hood brim for maximum protection.
b. Open front closure or remove hood from head for ventilation.
c. Shake frost accumulation from fur frequently.
d. Launder hood by hand, shake out water and air dry; or machine launder in accordance with Wool Method, Formula II, TH-10-280, except air dry.
e. WARNING: DO NOT TUMBLE DRY.

3.2.8 Leather. The leather keepers for hood drawcords shall be made from leather conforming to type II, class 2 of KK-L-241. The color of the leather shall be natural and the thickness shall be not less than 12/64 inch.

3.2.9 Synthetic fur ruff strips. The synthetic fur for the ruff shall conform to class 2 of MIL-C-43824, except that the color shall be natural white and the colorfastness requirements are not applicable.

3.2.10 Buttons. The buttons shall conform to type II, class D, style 26, 30 line of V-B-871. The buttons shall have a dull finish and the color shall be Olive Green, Shade BP.

3.2.11 Eyelets and washers. The eyelets shall conform to style A, eyelet No. MS 63033-1-4094 of MIL-E-20652.

3.2.12 Snap fasteners. The stud and post parts of the snap fastener shall be style 2A, finish 2, consisting of stud and eyelet size 1 or 2 conforming to MIL-F-10884.

3.2.13 Wire. The wire for the edge of brim shall be bright, 0.080 ± 0.003 inch diameter copper wire, dead soft, and shall not crack or break down when tested as specified in 4.2.1.1.

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3.2.14 Tape, cotton. The tape for eyelet reinforcements and pull cord loops shall be 1 inch wide cotton tape, Olive Drab 7, conforming to type I, class 3 of MIL-T-43566.

3.3 Design. The hood shall be a button in design, with drawcord adjusters, flannel lining, and a fur ruff as shown on figure 1.

3.4 Patterns. Standard patterns, which provide an allowance of 1/2 inch for double lapped seams and 3/8 inch for all other seams, will be furnished by the Government to the contractor for cutting working patterns. The working patterns shall be duplicates of the Government patterns. Neither the Government patterns nor the working patterns shall be altered in any way.

3.4.1 List of pattern parts. The components of the hood shall be cut from materials specified, according to the number of parts listed in table I.

TABLE I. List of pattern parts

Material	Pattern nomenclature	Cut parts
Cloth, oxford, cotton warp and nylon filling	Hood side panel	2
	Hood back panel	2
	Top brim	1
	Under brim	1
	Skirt chin piece (right side)	1
	Hood skirt	1
	Storm curtain	2
Cloth, flannel, wool and nylon	Hood side panel lining	2
	Hood back panel lining	2
	Skirt chin piece (right side)	1
	Hood skirt lining	1
Fastener tape	Hook portion (outside storm curtain) 1/	1
	Pile portion (inside storm curtain) 2/	1

1/ Two pieces of 1-1/2 inch wide hook tape, sewn together lengthwise shall be used to obtain the pattern shape or one piece of hook tape containing two 1-1/2 inch widths prior to slitting may be used.

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2/ Two pieces of 2 inch wide pile tape sewn together lengthwise shall be used to obtain the pattern shape or one piece of pile tape containing two 2 inch widths prior to slitting may be used.

* 3.5 Construction. The construction shall conform in all respects to the requirements specified in table II and herein. Figure 1 is furnished solely for guidance and information. Should variation from the document appear in figure 1, the document shall govern.

* 3.5.1 Stitches, seams, and stitching. All stitches, seams, and stitching shall conform to FED-STD-751. The type of seam, stitching, and stitches per inch shall be as specified in table II. Seam allowances shall be maintained with seams sewn so that no raw edges, run-offs, pleats, puckers, or open seams occur. When two or more methods of seams or stitches are given for the same operation, any one may be used. Where stitch type 401 is used, the chain or underside of the stitch shall be on the inside of the hoods.

* 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. 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 materials sewn. The lock shall be embedded in the materials sewn.

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

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

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

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

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3.5.1.2 Bartacks. Bartacks shall measure 1/2 to 5/8 inch long.

3.5.1.3 Buttonholes. Buttonholes shall be the cut after, eyelet end, taper bar type, worked over gimp with not less than four tacking stitches at bar end (not counting crossover stitch). The purling shall be on the inside unless otherwise specified.

3.6 Manufacturing operations requirements. The hood shall be made in accordance with the operation requirements specified in table II. The contractor is not required to follow exact sequence of operations as listed unless otherwise specified. Seam allowances required to be turned may be precreased. Any additional basting and holding stitches used to facilitate manufacture are permissible provided the thread is removed or does not show on the finished hood.

TABLE II. Manufacturing operations requirements

No.	Requirements	Stitch type	Seam and stitching type	Stitches per inch	Thread	
					Needle	Bobbin/ looper
1.	Cutting.					
	a. Cut all material in strict accordance with patterns furnished, which show directional lines and notches for assembling of all parts. Directional lines shall be placed in the warp direction unless otherwise indicated on patterns.					
	b. Cut all components of the oxford cloth from one piece of material except hood skirt, underply of brim, underply of storm curtain, chin reinforcement piece (see operation 13.a.) and skirt chin piece which may be cut from ends. All parts cut from ends shall approximate the shade of the hood.					
	c. Cut all components of the flannel lining in accordance with the patterns furnished.					
	d. Cut the synthetic fur knit cloth in the direction of the wales (lengthwise) 2 ± 1/4 inches wide and 45 ± 1/2 inches long. There shall be no piecing.					
2.	Replacement of damaged parts.					
	Care shall be exercised during the spreading, cutting, and manufacturing operations to assure that material defects and damages as classified in 4.2.1 are excluded and replaced with non-defective and properly matched material.					

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TABLE II. Manufacturing operations requirements - Continued

No.	Requirements	Stitch type	Seam and stitching type	Stitches per inch	Thread	
					Needle	Bobbin/ looper
3.	Shade marking.					
	a. Mark, ticket, or bundle all parts of the hood to ensure a uniform shade throughout the hood except those cut from ends.					
	b. Any method of marking may be used except: (1) Metal fastening devices except on fleece lining (2) Corrosive metal fastening devices on fleece lining (3) Sew-on type tickets (4) Adhesive type tickets which leave a discoloration or traces of paper or adhesive on the material upon removal of the tickets					
4.	Make leather keepers.					
	a. Cut four leather pieces for drawcord keepers 1-1/2 ± 1/8 inches long by 5/8 ± 1/8 inch wide with ends rounded.					
	b. Punch a hole approximately 9/64 inch in diameter in keeper, centered on keeper, and 1/8 to 1/4 inch from each end as shown on figure 1. The diameter of the hole at each end of keeper shall be increased or decreased to provide for any plus or minus variation in the diameter of the 1/8 inch drawcord in order to insure proper function of the keeper.					

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TABLE II. Manufacturing operations requirements - Continued

No.	Requirements	Stitch type	Seam and stitching type	Stitches per inch	Thread: Needle	Thread: Bobbin/ looper
5.	Labels.					
	Sew labels on all four sides not more than 3/16 inch from edges through hood lining only, as follows:	301	LSbj-1	8-12	50-2 or 3	50-2 or 3
	(1) Identification label - on right or left side of skirt lining. (2) Instruction label - centered on hood lining (± 1/2 inch off center allowed) with bottom edge of label 2 to 2-1/2 inches above skirt joining seam.					
6.	Make hood and hood lining.					
	a. Join respectively back panels of hood and back panels of hood lining with a double-lapped and double-stitched seam, with the left panel (as worn) on top of right panel; or seam the parts, turn and raise stitch 1/4 ± 1/16 inch from seam.	301 or 401	LSc-2 or LSq-2	10-14	30-3 30-3	30-3 30-3
	b. (1) Join respectively sides of hood and sides of hood lining to the back panels of hood and back panels of hood lining with a double-lapped and double-stitched seam with the back panels on tops and sides.	301 or 401	LSc-2	10-14	30-3 30-3	30-3 30-3
	- or -					
	(2) Seam the panel and sides of hood and lining turn and raise stitch 1/4 ± 1/16 inch from seam.	301 or 401	LSq-2	10-14 10-14	30-3 30-3	30-3 50-2 or 3

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TABLE II. Manufacturing operations requirements - Continued

No.	Requirements	Stitch type	Seam and stitching type	Stitches per inch	Thread: Needle	Thread: Bobbin/ looper
6.	Make hood and hood lining - continued					
	c. (1) Join center seam at top of hood with a double-lapped, double-stitched seam, with the left side as worn over the right.	301 or 401	LSc-2	10-14	30-3 30-3	30-3 50-2 or 3
	- or -					
	(2) Seam, turn and raise stitch 1/4 ± 1/16 inch from seam.	301 or 401	LSq-2	10-14	30-3 30-3	30-3 50-2 or 3
	d. Seam the cut across top of hood, turn and raise stitch 1/16 to 1/8 inch from seam with the seam turned to back of hood.	301 or 401	LSq-2	10-14	30-3 30-3	30-3 50-2 or 3
	e. Seam center seam at top of hood lining, spread open and stitch 1/8 to 1/4 inch each side of seam.	301 or 401	SSz-3	10-14	30-3 30-3	30-3 50-2 or 3
	f. Seam the cut across top of hood lining, spread seam open and stitch 1/8 to 1/4 inch each side of seam.	301 or 401	SSz-3	10-14	30-3 30-3	30-3 50-2 or 3

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TABLE II. Manufacturing operations requirements - Continued

No.	Requirements	Stitch type	Seam and stitching type	Stitches per inch	Thread: Needle	Thread: Bobbin/ looper
7.	Attach eyelets.					
	a. Eyelets for face drawcord:					
	(1) Make two eyelet stay pieces from the 1 inch wide tape to finish 1 to 1-1/8 inches long. (2) The stay may be stitched on four sides 1/16 to 1/8 inch from edges to underside of hood, positioned as indicated by marks on patterns. (3) Insert an eyelet through outer material and each stay piece and clinch.	301	LSbj-1	10-14	30-3	30-3
	b. Eyelets for pull-cord:					
	(1) Make two eyelet stay pieces from the 1 inch wide tape to finish 1 to 1-1/18 inches long. (2) Insert an eyelet through outer material and reinforcement piece and clinch at bottom of each side panel as indicated by marks on pattern.					
8.	Make pull-cord assembly.					
	a. Cut pull-cord 50 ± 1 inches long.					
	b. Impregnate or dip ends of pull-cord (see 3.2.2).					
	c. Cut two loops, 1-5/8 ± 1/8 inches long from the 1 inch wide tape for pull-cord loops.					
	d. Position loops on inside of hood as indicated by marks on pattern and bartack to hood with two bartacks spaced 1/2 to 5/8 inch apart centered on loop and parallel to ends of tape (see figure 1).	Bartack		28 per bartack	50-2 or 3	50-2 or 3

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TABLE II. Manufacturing operations requirements - Continued

No.	Requirements	Stitch type	Seam and stitching type	Stitches per inch	Thread: Needle	Thread: Bobbin/ looper
8.	Make pull-cord assembly - continued					
	e. Bartack center of pull-cord through back center seam as indicated by marks on pattern. Bartack shall be vertically centered on seam.	Bartack		28 bartack	50-2 or 3	50-2 or 3
	f. Thread each end of cord through pull-cord loops.					
	g. Thread right end of cord through eyelet on left side at bottom back edge of side panel and thread left end of cord through eyelet on right side at bottom back edge of side panel (cord crossing itself at back). Thread each cord end through keeper and knot end.					
9.	Make skirt for hood.					
	a. Join chin piece to right side of skirt with a double-lapped and double-stitched seam.	301 or 401	LSc-2	10-14	30-3 30-3	30-3 50-2 or 3
	b. Join fleece chin piece to right side of fleece skirt lining. Spread seam open and stitch 1/8 to 1/4 inch each side of seam.	301 or 401	SSz-3	10-14	30-3 30-3	30-3 50-2 or 3

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TABLE II. Manufacturing operations requirements - Continued

No.	Requirements	Stitch type	Seam and stitching type	Stitches per inch	Thread: Needle	Thread: Bobbin/ looper
10.	Join hood skirt and hood lining skirt.					
	a. Seam hood skirt to bottom edge of hood. Turn skirt down and raise stitch 1/16 to 1/8 inch from seam. Hood shall lap on top of skirt.	301 or 401	LSq-2	10-14	30-3 30-3	30-3 50-2 or 3
	b. Seam skirt lining to bottom edge of hood lining. Spread seam open and stitch 1/8 to 1/4 inch each side of seam.	301 or 401	SSz-3	10-14	30-3 30-3	30-3 50-2 or 3
11.	Brim.					
	a. Seam top brim to front edge of hood with the stitching starting or terminating at notch on left side of brim.	301 or 401	LSq-2(a)	10-14	30-3 30-3	30-3 50-2 or 3
	b. Turn and raise stitch 1/16 to 1/8 inch from seam. Hood shall lap on top of brim.	301	LSq-2(b)	10-14	30-3	30-3
	c. Seam under-brim to front edge of hood lining with the stitching starting or terminating at notch on left side of brim.	301 or 401	LSq-2(a)	10-14	30-3 30-3	30-3 50-2 or 3
	d. Turn and raise stitch 1/6 to 1/8 inch from edge. Underply of brim shall lap on hood lining.	301	LSq-2(b)	10-14	30-3	30-3
12.	Attach two drawcords.					
	a. Cut each drawcord 24 ± 1 inches long.					
	b. Impregnate or dip ends of drawcords (see 3.2.2).					

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TABLE II. Manufacturing operations requirements - Continued

No.	Requirements	Stitch type	Seam and stitching type	Stitches per inch	Thread: Needle	Thread: Bobbin/ looper
12.	Attach two drawcords - continued					
	c. Tack or bartack one end of each face drawcord to brim and hood joining seam allowances as indicated by marks on pattern.	301 tack or bartack	SSa-1	10-12 per tack or 28 per bartack	30-3	30-3
	d. Thread cord on the right side of hood through the eyelet on left side of hood and thread the cord on left side of hood through the eyelet on right side of hood with the cords crossing each other. Thread cords through keepers and knot ends.					
13.	Make tunnel for adjusting wire.					
	a. Cut reinforcement strip for inside front of chin piece, 2 to 2-1/2 inches wide by 5 to 5-1/2 inches long (may be cut in two pieces 1 to 1-1/4 inches wide by 5 to 5-1/2 inches long).					
	b. Fold reinforcement strip in half lengthwise and position on inside of chin piece fleece lining with front and bottom edges even. Seam back edge to lining 1/16 to 1/8 inch from edge.	301	SSa-1	10-14	30-3	30-3
	c. Seam top brim to under brim along front edge from notch at back edge of brim at left side to opposite side and along bottom edge to back edge of hood skirt lining, leaving a 1 to 1-1/4 inches opening at bottom or top edge on right side. The corner of brim shall not be part of the 1 inch opening. The front edge of the reinforcement piece shall be caught in the stitching.	301 or 401	SSe-2(a)	10-14	30-3 30-3	30-3 50-2 or 3

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TABLE II. Manufacturing operations requirements - Continued

No.	Requirements	Stitch type	Seam and stitching type	Stitches per inch	Thread: Needle	Thread: Bobbin/ looper
13.	Make tunnel for adjusting wire - continued					
	d. Trim corners, turn, work out corners and edges and edge stitch 1/16 to 1/8 inch from edge, leaving opening as indicated in operation 13.c.	301	SSe-1(b)	10-14	30-3	30-3
	e. Form tunnel on edge of brim (for enclosing adjusting wire) with a row of stitching 1/2 to 5/8 inch from the outer edge and through all plies of brim.	301	SSa-1	10-14	30-3	30-3
14.	Form tunnel for face drawcord.					
	Form the tunnel for face drawcord with a double row of stitching starting and ending at bottom of eyelet reinforcement piece (see operation 7); first row of stitching to go through hood and underply of brim at front edge of hood with a second row of stitching through hood and hood lining 3/4 ± 1/8 inch from first row. The drawcord shall not be caught in the tunnel stitching.	301		10-14	30-3	30-3
15.	Quilt brim.					
	Quilt top brim to the underply with rows of diagonal stitching with the points 2 ± 1/2 inches apart. The points shall be 1/2 to 5/8 inch from front and back edge of brim.	301	SSv-1	10-14	30-3	30-3

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TABLE II. Manufacturing operations requirements - Continued

No.	Requirements	Stitch type	Seam and stitching type	Stitches per inch	Thread: Needle	Thread: Bobbin/ looper
16.	Attach synthetic fur ruff.					
	a. Position ruff on underside of hood brim with front edge adjacent to back of tunnel stitching and with the end of right side 1 ± 1/2 inches from bottom edge of chin pieces.					
	b. Seam all edges of ruff to chin piece and brim, 1/8 to 3/16 inch from edge of ruff.	301	LSbj-1	10-14	50-2 or 3	50-2 or 3
17.	Finish hood skirt.					
	a. Hem unfinished portion at bottom edge of hood skirt with raw edges turned in and stitch 1/16 to 1/8 inch from edge. Hem shall finish 1/4 ± 1/16 inch wide.	301	EFb-1	10-14	50-2 or 3	50-2 or 3
	b. Stitch skirt lining to skirt 1/4 ± 1/8 inch from raw edge of skirt lining, with bottom edge of skirt lining adjacent to top turned edge of skirt hem. Lining shall not be short or distorted.	301		10-14	50-2 or 3	50-2 or 3
18.	Make storm curtain.					
	a. Cut braid for button loop 3 ± 1/4 inches long. The finished length of loop shall measure 3/4 to 1 inch inside measurement.					

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TABLE II. Manufacturing operations requirements - Continued

No.	Requirements	Stitch type	Seam and stitching type	Stitches per inch	Thread: Needle	Thread: Bobbin/ looper
18.	Make storm curtain - continued					
	b. Seam the plies of storm curtain along top, bottom left side and lower right side edges (upper right side open) catching the button loop in the seaming as indicated by marks on pattern. Turn, force out corners, and single stitch 1/16 to 1/8 inch from edge.	301 or 401 301	SSe-2(a) SSe-2(b)	10-14 10-14	30-3 30-3 30-3	30-3 50- 2 or 3 30-3
	c. Bartack the ends of the button loop, with bartack superimposed on edge stitching.	Bartack		28 per bartack	50- 2 or 3	50- 2 or 3
19.	Attach nylon fastener.					
	a. (1) Lap the two hook portions of the nylon fastener 1/8 inch and seam together to conform to shape of pattern.	301	LSa-1	10-14	30-3	30-3
	(2) Position on outside of storm curtain on right side as indicated by marks on pattern. Stitch fastener to curtain 1/16 inch from edges on all sides and through center. Repeat the stitching 1/16 inch from first stitching except the stitching through center shall be superimposed or adjacent to first stitching.	301	LSbj-1	10-14	30-3	30-3
	b. (1) Lap the two pile portions of nylon fastener 1/8 inch and seam together to conform to shape of pattern.	301	LSa-1	10-14	30-3	30-3

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TABLE II. Manufacturing operations requirements - Continued

No.	Requirements	Stitch type	Seam and stitching type	Stitches per inch	Thread: Needle	Thread: Bobbin/ looper
19.	Attach nylon fastener - continued					
	(2) Position on inside of storm curtain on left side as indicated by marks on pattern. Stitch fastener to curtain 1/16 inch from edges on all sides and through center. Repeat the stitching 1/16 inch from first stitching except the stitching through center shall be superimposed or adjacent to first stitching.	301	LSbj-1	10-14	30-3	30-3
20.	Attach storm curtain.					
	a. Mark position for storm curtain on outside of hood 1-1/2 to 1-5/8 inches above and parallel to the skirt joining seam; with the top raw edges of storm curtain at right side turned in not less than 3/8 inch.					
	b. Seam storm curtain with top edge at mark, 1/16 to 1/8 inch from edge of curtain. The seaming shall be from left edge of hood to right side of hood adjacent to brim seam with the stitching continued diagonally through synthetic fur strip.	301	LSa-1 and LSd-1	10-14	50-2 or 3	50-2 or 3
	c. Stitch bottom edge of brim at left side through storm curtain 1/16 to 1/8 inch from edge.	301	LSa-1	10-14	50-2 or 3	50-2 or 3
21.	Buttonholes.					
	a. Mark position for four buttonholes on hood skirt and four buttonholes on storm curtain as indicated by marks on pattern.					

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TABLE II. Manufacturing operations requirements - Continued

No.	Requirements	Stitch type	Seam and stitching type	Stitches per inch	Thread: Needle	Thread: Bobbin/ looper
21.	Buttonholes - continued					
	b. Make a 3/4 to 7/8 inch cut-after buttonhole at each mark. The buttonholes on hood skirt and storm curtain shall be in alignment (5/8 inch tolerance).	Buttonhole		44-46 per buttonhole	30-3	30-3
22.	Snap fastener.					
	Mark and attach a stud part of snap fastener on the seam of chin piece on right side, through basic material and fleece lining without distortion to either ply, as indicated by marks on pattern.					
23.	Buttons.					
	Mark position for buttons as indicated by marks on patterns and sew a button at each mark as follows:	101 or Hand		20-24 per button	30-3	
	(1) Five on underside of storm curtain.	301 or		14-16 per button	30-3	30-3
	(2) One on center seam at top of hood, with the outside edge of button 1-1/4 ± 1/8 inches from joining seam of brim.	Hand		6 per button double thread	30-3	
	(3) One of left side of hood through hood and lining.					

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TABLE II. Manufacturing operations requirements - Continued

No.	Requirements	Stitch type	Seam and stitching type	Stitches per inch	Thread: Needle	Thread: Bobbin/ looper
24.	Insert adjusting wire.					
	a. Cut adjusting wire 44-1/4 to 45 inches long. Turn each end 3/4 to 7/8 inches to form loop.					
	b. Insert wire in hood tunnel through opening at bottom of hood at right side. End of loop shall finish 2-1/2 ± 1/4 inches from bottom of hood at right side.					
	c. Turn in raw edges of opening to inside and stitch closed in line with edge stitching.	301	SSc-1	10-14	50-2 or 3	50-2 or 3
25.	Bartacking.					
	a. Bartack the full width of wire tunnel not more than 1/2 ± 1/8 inch from ends of wire loops on each side of hood through all plies.	Bartack		28 per bartack	50-2 or 3	50-2 or 3
	b. Bartack center back seam below the crossing of the pull cord as indicated by marks on pattern through hood and hood lining with the bartack vertically centered on seam.	Bartack		28 per bartack	50-2 or 3	50-2 or 3
26.	Clean hood.					
	Trim all thread ends, remove all spots, stains and shade tickets.					

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3.7 Measurements. The finished hood shall conform to the measurements shown in table III.

TABLE III. Finished hood measurements

Location	Measurement (inches)	Tolerance (inches) Plus	Minus
Overall length 1/	34	3/4	1/2
Neck 2/	24	3/4	1/2
Brim width 3/	4-7/8	1/4	1/4
Storm curtain width 4/	6-3/8	1/4	1/4
Skirt width 4/	4-1/4	1/4	1/4

1/ Measured from bottom of storm curtain to front edge of brim in alignment with center seam at top of hood.

2/ Measured along length of seam which joins skirt to hood on inside.

3/ Measured in alignment with center panel seam at top of hood.

4/ Measured in alignment with center panel seam.

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

4. QUALITY ASSURANCE PROVISIONS

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

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* 4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this document shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirement in the document shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

* 4.1.2 Responsibility for dimensional requirements. Unless otherwise specified in the contract or purchase order, the contractor is responsible for assuring that all specified dimensions have been met. When dimensions cannot be examined on the end item, inspection shall be made at any point or at all points in the manufacturing process necessary to assure compliance with all dimensional requirements.

4.1.3 Certificates of compliance. When certificates of compliance are submitted, the Government reserves the right to inspect such items to determine the validity of the certification.

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

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

4.2.1.1 Wire testing. The wire shall be tested as specified in table V. The lot size shall be expressed in units of spools of wire. The sample unit shall be 3 feet of wire. The sample size shall be as specified in table IV. Any test failure shall be cause for rejection of the lot.

TABLE IV. Sample size

Lot size	Sample size (sample units)
800 or less	2
801 to 22,000 inclusive	3
22,001 and over	5

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TABLE V. Wire tests

Characteristic	Requirement paragraph	Test method	Determinations per sample unit	Results reported as
Material identification	3.2.13	1/	-	-
Diameter	3.2.13	Micrometer	3	Average of 3 determinations to nearest 0.001 inch
Resistance to cracking or breaking	3.2.13	2/	1	Pass or fail

1/ A certificate of compliance shall be submitted and will be acceptable for the stated requirement.

2/ The wire shall be bent 360 degrees over a mandrel of the same diameter and then straightened. This bending and straightening shall be repeated once more in the same place in the wire. Any cracking or breaking observed in the wire shall be considered a test failure.

4.2.1.2 Certification. The dipping or impregnation compound specified in 3.2.2 may be accepted on the basis of a contractor's certificate of compliance.

4.2.2 Point count inspection. Sampling and inspection provisions for end item examination, dimensional examination, and packaging inspection shall be performed in accordance with MIL-STD-1667.

* 4.2.3 Palletization examination. The fully packaged and palletized end items shall be examined for the defects listed below. The lot size shall be expressed in units of palletized unit loads. The sample unit shall be one palletized unit load, fully packaged. The inspection level shall be S-1 and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

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

5. PACKAGING

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

5.1.1 Level A. Each hood shall be laid out flat on its side with the fur ruff edges aligned. The hood shall then be folded in half the length requiring the bending of the brim wire upon itself to achieve a flat fold. Six hoods, alternatively reversed top to bottom and side to side, shall be stacked to form a bundle, measuring approximately 14-1/2 inches in length, 11-1/2 inches in width, and 7-1/2 inches in depth. The bundle shall be securely crosstied with cotton tape or twine.

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

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

* 5.2.1 Level A packing. Twenty-four hoods, preserved as specified in 5.1, shall be packed in a snug-fitting fiberboard shipping container, conforming to style RSC-L, grade V2s of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to CF, class weather-resistant, variety DW, grade V15c of PPP-B-636. Level A unit packs shall be packed flat, two in length, one in width, and two in depth within a shipping container. Inside dimensions of each shipping container shall approximate 23-1/2 inches in length, 15 inches in width, and 15 inches in depth. Approximate dimensions are furnished as a guide only. Each shipping container shall have the contents completely covered on the top and bottom with a sheet of 30 pound minimum basis weight kraft paper conforming to A-A-203. Each shipping container shall be closed in accordance with method III, waterproofed in accordance with method V, and reinforced as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.2.2.

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Shipping containers shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified (see 6.2). When unit loads are strapped, strapping shall be limited to nonmetallic strapping, except for type II, class F loads.

* 5.2.2 Level B packing. Twenty-four hoods, preserved as specified in 5.1, shall be packed in a snug-fitting fiberboard shipping container conforming to style RSC-L, type CF (variety SW) or SF, class domestic, grade 275 of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class domestic, variety DW, grade 275 of PPP-B-636. Level A unit packs shall be packed flat, two in length, one in width and two in depth within a shipping container. Inside dimensions of each container shall approximate 23-1/2 inches in length, 15 inches in width, and 15 inches in depth. Approximate dimensions are furnished as a guide only. Each container shall have the contents completely covered on the top and bottom with a sheet of 30 pound minimum basis weight kraft paper conforming to A-A-203. Each shipping container shall be closed in accordance with method II as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.2.2.

5.2.2.1 Weather-resistant fiberboard containers. When specified (see 6.2), the shipping container shall be grade V3c, V3s, or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with the appendix of PPP-B-636 except that the inspection shall be in accordance with 4.2.2.

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

* 5.3 Palletization. When specified (see 6.2), hoods, packed as specified in 5.2.2 and 5.2.3, shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Pallet type shall be type I (4-way entry), type IV, or type V in accordance with MIL-STD-147. Pallets shall be fabricated from wood groups I, II, III, or IV of MIL-STD-731. Each prepared load shall be bonded with primary and secondary straps in accordance with bonding means K and L or film bonding means O or P. Pallet pattern shall be number 3 in accordance with the appendix of MIL-STD-147. Interlocking of loads shall be effected by reversing the pattern of each course.

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

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6. NOTES

6.1 Intended use. The hood is intended for wear by male personnel of the Department of Defense as a component of the cold-dry uniform.

* 6.2 Ordering data. Acquisition documents should specify the following:

a. Title, number, and date of this document.
b. Selection of applicable levels of preservation and packing (see 5.1 and 5.2).
c. Type and class of unit load required (see 5.2.1).
d. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).
e. When palletization is required (see 5.3).

6.3 Samples. For access to sample of end item and shade samples, address the contracting activity issuing the invitation for bids.

6.4 Color of label (see 3.2.7). The following cable numbers of the Standard Color Card of America are furnished for information and guidance as to the intensity of the shade of "Medium Green" desired for the labels specified:

Cable No. 70034
Cable No. 70130
Cable No. 70131

* 6.5 Subject term (key word) listing.

Clothing
Cold-dry
Extreme cold
Hood

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

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Navy - NU
Air Force - 99

Review activities:

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Air Force - 82
DLA - CT

User activities:

Navy - MC
Air Force - 45

Preparing activity:

Army - GL

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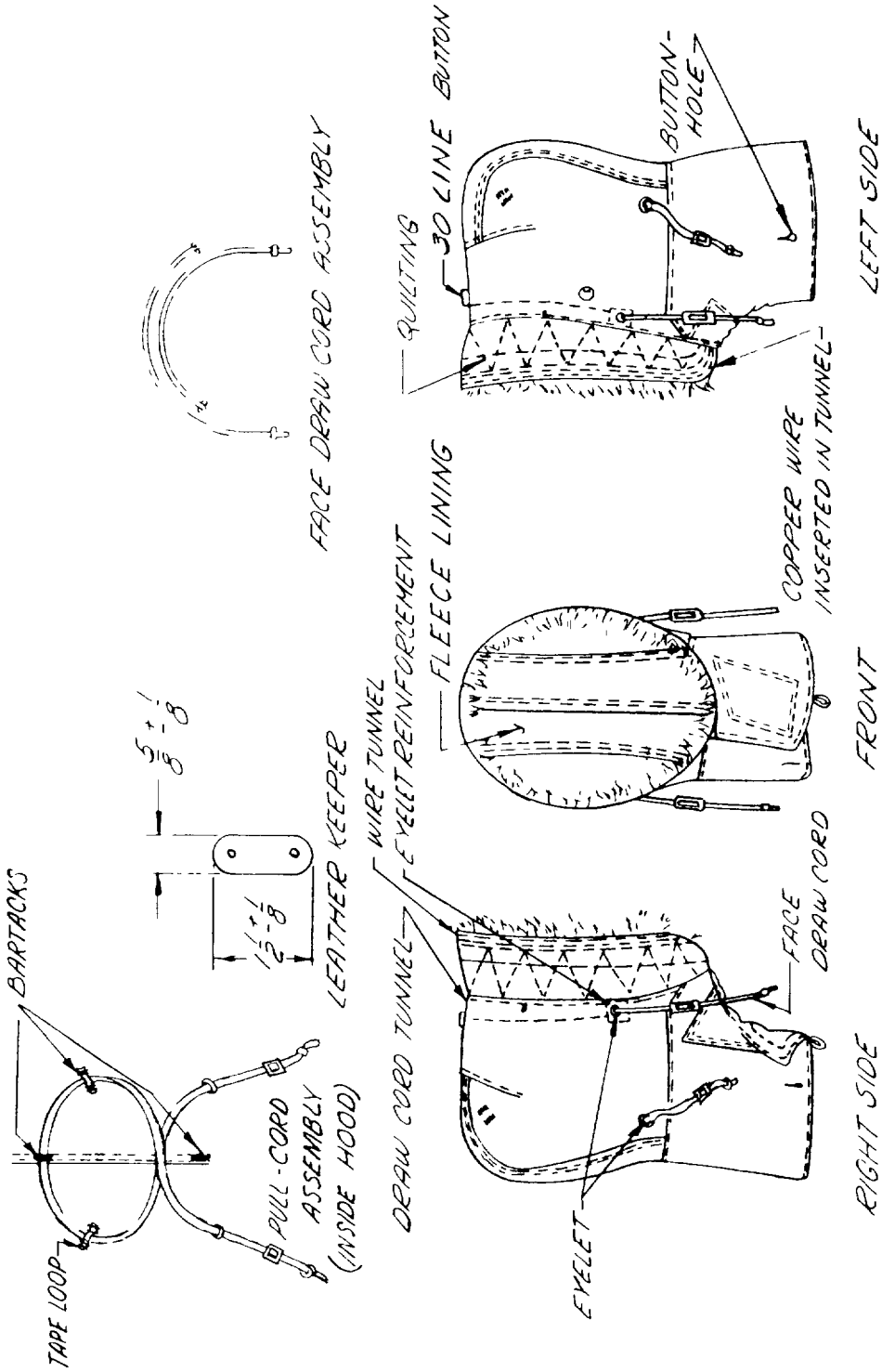

FIGURE 1. Hood, extreme cold weather, w/synthetic fur ruff, OG 107

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STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions – Reverse Side)

1 DOCUMENT NUMBER	2 DOCUMENT TITLE
MIL-H-43555D	Hood, Extreme Cold Weather, W/Synthetic Fur Ruff, OG-107

3a. NAME OF SUBMITTING ORGANIZATION

b ADDRESS *(Street City, State, ZIP Code)*

4 TYPE OF ORGANIZATION *(Mark one)*

- ☐ VENDOR
- ☐ USER
- ☐ MANUFACTURER
- ☐ OTHER *(Specify)* _____

5 PROBLEM AREAS

a. Paragraph Number and Wording

b Recommended Wording

c Reason/Rationale for Recommendation

6 REMARKS

7a NAME OF SUBMITTER *(Last, First, MI)* – Optional

b WORK TELEPHONE NUMBER *(Include Area Code)* – Optional

c MAILING ADDRESS *(Street, City State ZIP Code)* – Optional

8. DATE OF SUBMISSION *(YYMMDD)*

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NATICK OP, 1 Apr 84