

INCH-POUND

MIL-J-43924E  
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 SUPERSEDING  
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## MILITARY SPECIFICATION

## JACKETS, COLD WEATHER, (HIGH TEMPERATURE RESISTANT)

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

## 1. SCOPE

1.1 Scope. This specification covers jackets made of a high temperature resistant aramid oxford fabric and lined with high temperature resistant aramid quilted batting for wear in cold weather conditions.

1.2 Classification. The jackets shall be of the following classes and sizes as specified (see 6.2).

Class 1 - Olive Green 106  
 Class 2 - Tan 380

Schedule of sizes

X-Small	Short	Regular	Long
Small	Short	Regular	Long
Medium	Short	Regular	Long
Large	Short	Regular	Long
X-Large	Short	Regular	Long

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be used in improving this document should be addressed to: U.S. Army Natick Research, Development and Engineering Center, Natick, MA 01760-5019 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 are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

## SPECIFICATIONS

## FEDERAL

- A-A-50083 - Bag, Plastic, Folded Garment
- A-A-50195 - Thread, Aramid
- A-A-51099 - Thread, Polyester Core, Cotton- or Polyester-Covered
- T-T-881 - Twine, Cotton, Seine
- V-F-106 - Fasteners, Slide, Interlocking
- DDD-L-20 - Label: For Clothing, Equipage, and Tentage (General Use)
- PPP-B-636 - Boxes, Shipping, Fiberboard

## MILITARY

- MIL-C-3735 - Cuffs, Knit, Wrist and Ankle, and Cloth, Knitted
- MIL-F-21840 - Fastener Tapes, Hook and Loop, Synthetic
- MIL-L-35078 - Loads, Unit: Preparation of Semiperishable Subsistence Items; Clothing, Personal Equipment and Equipage; General Specification For
- MIL-W-43685 - Webbing, Tape, Textile, Aramid Fiber
- MIL-T-43709 - Tape, Textile, Aramid
- MIL-C-43774 - Cloth, Plain or Pajama Check Weave, Aramid
- MIL-C-43842 - Cloth, Oxford, Aramid
- MIL-T-44100 - Thread, Para-Aramid, Spun, Intermediate Modulus
- MIL-B-81813 - Batting, Aramid or Novoloid Fiber, Quilted

## STANDARDS

## FEDERAL

- FED-STD-595 - Colors Used in Government Procurement
- FED-STD-751 - Stitches, Seams, and Stitchings

## MILITARY

- MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes

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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

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

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

D 3951 - Standard Practice for Commercial Packaging

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

(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 6.2), a sample shall be subjected to first article inspection (see 6.3) in accordance with 4.3.

3.2 Guide samples. Samples, when furnished, are solely for guidance and information to the contractor (see 6.4). Variation from this specification may appear in the sample, in which case this specification shall govern.

3.3 Materials. It is encouraged that recycled material be used when practical as long as it meets the requirements of this specification.

3.3.1 Basic material. The basic material shall be 6.0 ounce aramid oxford cloth conforming to MIL-C-43842. The color for class 1 shall be Olive Green 106 and for class 2 shall be Tan 380.

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3.3.2 Armhole extension. The material for the armhole extension piece on the lining shall be 3 ounce aramid cloth conforming to MIL-C-43774. The color for class 1 shall be Olive Green 106 and for class 2 shall be Tan 380.

3.3.3 Lining. The material for the lining shall be aramid quilted batting conforming to MIL-B-81813. The face side of the lining material for class 1 shall be Olive Green 106 and for class 2 shall be Tan 380 with the stitching of the dumbbell pattern having thread to match the basic material. The opposite side for class 1 may be Olive Green 106, natural, or mixed (OG warp - natural filling or natural warp - OG filling) and for class 2 may be Tan 380, natural, or mixed (tan warp - natural filling or natural warp tan filling) and the stitching of the dumbbell pattern shall have natural thread.

3.3.4 Knit wrist cuffs and waistband material.

3.3.4.1 Wrist cuffs. The knit wrist cuffs shall conform to type IV, class 2, size 2 of MIL-C-3735. The color for class 1 shall be Olive Green 106 and for class 2 shall be Tan 380.

3.3.4.2 Waistband. The knit waistband shall conform to type IV, class 3 of MIL-C-3735. The color for class 1 shall be Olive Green 106 and for class 2 shall be Tan 380.

3.3.5 Fasteners, nylon tape. The nylon tape fasteners shall conform to type I, class 2, 1 inch and 5/8 inch widths of MIL-F-21840. Nylon fastener tapes, 1-1/2 inches wide may be substituted for the 5/8 inch wide tape fasteners. The color for class 1 shall be Green 3421 and for class 2 shall be Tan 380.

3.3.6 Aramid tape. The tape for hanger loop shall conform to MIL-T-43709. The color for class 1 shall be Olive Green 106 and for class 2 shall be Tan 380.

3.3.7 Cord. The cord beading used for welts of front opening shall conform to type I, No. 18 of T-T-881.

3.3.8 Thread.

3.3.8.1 Thread, aramid and para-aramid. The thread shall be aramid, sizes B and E conforming to A-A-50195. Para-aramid spun staple thread, size tex 35, conforming to MIL-T-44100 may be used as an alternate to aramid sizes B and E. The color for class 1 shall be Camouflage Green 483 approximating color chip 34094 of FED-STD-595 and for class 2 shall be Tan 380, and shall show fastness to laundering equal to or better than the standard sample. When no standard sample is available, the thread shall show "good" fastness to laundering.

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3.3.8.2 Cotton-covered polyester core thread. Cotton-covered polyester core thread conforming to ticket No. 50, 2 ply of A-A-50199 may be used as an alternate thread for bartacking. The color for class 1 shall be Camouflage Green 483 approximating color chip 34094 of FED-STD-595 and for class 2 shall be Tan 380, and shall show fastness to laundering equal to or better than the standard sample. When no standard sample is available, the thread shall show "good" fastness to laundering.

3.3.9 Fasteners, slide. The slide fasteners shall be brass with a black chemical finish and shall conform to V-F-106.

3.3.9.1 Front. The fastener for the jacket front shall conform to type IV, style 8, size M, short tab pull, with the chain of the following lengths in inches:

	<u>Short</u>	<u>Regular</u>	<u>Long</u>
X-Small	19	20	21
Small	19-1/2	20-1/2	21-1/2
Medium	20	21	22
Large	20-1/2	21-1/2	22-1/2
X-Large	21	22	23

3.3.9.2 Pencil and utility pocket. The fastener for the pencil and utility pocket shall conform to type I, style 7, size M, short tab pull, 4-3/4 inch chain.

3.3.9.3 Slide fastener tape. The slide fastener tape shall be aramid. The color for class 1 shall be shade S, Cable No. 66519, and for class 2 shall be Tan 380. The finished tape shall show colorfastness to light and laundering equal to or better than the standard sample. When no standard sample is available, the tape shall show "fair" fastness to light after 6 standard fading hours and "good" fastness to laundering.

3.3.9.4 Thongs. Each slide fastener shall be furnished with a thong of sufficient length to measure 2-1/2 to 3 inches (folded) when attached to slider pull tab. The thongs shall be 1/4 inch wide conforming to MIL-T-43709. The color for class 1 shall be Olive Green 106 and for class 2 shall be Tan 380. Ends of thongs shall be seared or dipped in a colorless, non-combustible resin (see 6.5). Thongs shall be attached to slider pull tabs as specified in table II, operation 4.

3.3.10 Labels. Each jacket shall have an identification label, a size label, and an instruction label or a combination identification-instruction label or a combination identification-size label, conforming to type VI of DDD-L-20. The fastness to laundering requirements of DDD-L-20 shall apply. The color of the label for class 1 shall be Medium Green, Cable No. 70034, 70130, or 70131 and the color for class 2 shall be Khaki, Cable No. 70188. The fastness to laundering requirements of DDD-L-20 shall apply.

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

3.3.10.2 Size label. The size label shall conform to class 2 and shall contain the following information for each respective size. Descriptive information shall be printed in letters and numerals not less than 10-point and as follows:

X-Small - Short

Chest: Up to 33 inches  
Height: Up to 67 inches  
Stock No.:  
NATO size: 6070/7484

X-Small - Regular

Chest: Up to 33 inches  
Height: 67 to 71 inches  
Stock No.:  
NATO size: 7080/7484

X-Small - Long

Chest: Up to 33 inches  
Height: 71 inches up  
Stock No.:  
NATO size: 8090/7484

Small - Short

Chest: 33 to 37 inches  
Height: Up to 67 inches  
Stock No.:  
NATO size: 6070/8494

Small - Regular

Chest: 33 to 37 inches  
Height: 67 to 71 inches  
Stock No.:  
NATO size: 7080/8494

Small - Long

Chest: 33 to 37 inches  
Height: 71 inches up  
Stock No.:  
NATO size: 8090/8494

Medium - Short

Chest: 37 to 41 inches  
Height: Up to 67 inches  
Stock No.:  
NATO size: 6070/9404

Medium - Regular

Chest: 37 to 41 inches  
Height: 67 to 71 inches  
Stock No.:  
NATO size: 7080/9404

Medium - Long

Chest: 37 to 41 inches  
Height: 71 inches up  
Stock No.:  
NATO size: 8090/9404

Large - Short

Chest: 41 to 45 inches  
Height: Up to 67 inches  
Stock No.:  
NATO size: 6070/0414

Large - Regular

Chest: 41 to 45 inches  
Height: 67 to 71 inches  
Stock No.:  
NATO size: 7080/0414

Large - Long

Chest: 41 to 45 inches  
Height: 71 inches up  
Stock No.:  
NATO size: 8090/0414

X-Large - Short

Chest: 45 inches up  
Height: Up to 67 inches  
Stock No.:  
NATO size: 6070/1424

X-Large - Regular

Chest: 45 inches up  
Height: 67 to 71 inches  
Stock No.:  
NATO size: 7080/1424

X-Large - Long

Chest: 45 inches up  
Height: 71 inches up  
Stock No.:  
NATO size: 8090/1424

3.3.10.3 Instruction label. The instruction label shall conform to class 3 and shall contain the following information:

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JACKET: COLD WEATHER, (HIGH TEMPERATURE RESISTANT)

This jacket is of low flammability.  
Flame resistant treatments are not required.

1. For thorough cleaning return to laundry unit for machine washing. Jackets may be hand laundered; make sure soap is thoroughly rinsed out.
2. WARNING: Launder with slide fasteners and hook and loop fasteners closed. Do not press hook and loop fasteners. After 10 laundering cycles and thereafter, launder in accordance with Formula IX (no bleach) of TM 10-280, field laundry and Natick Formula X, fixed laundry for the retreatment of antistatic agent.
3. DO NOT STARCH. Starch will burn. If starched, thorough laundering will return this jacket to its fire retardant condition.
4. Color fading does not diminish the flame retardant properties.
5. It may be necessary to use the next larger size when wearing the full CVC cold weather ensemble.

DO NOT REMOVE THIS LABEL

3.3.10.4 Combination identification-instruction label. The identification label (class 1) and the instruction label (class 3) may be combined into one label. When combined, the item nomenclature shall not be repeated. The combination label shall conform to the requirements of the class 15 label.

3.3.10.5 Combination identification-size label. The identification label (class 1) and the size label (class 2) may be combined into one label.

3.3.11 Webbing. The webbing for the pull tab on the retrieval strap opening shall conform to type II of MIL-W-43685.

3.4 Design. The jacket is single breasted with a front slide fastener closure, with an inside protective flap. The back has a yoke and a retrieval strap opening with hook and loop closure. The jacket has a collar with tab closure and has diagonal side pockets with flaps with hook and loop closure. The left sleeve has a utility and pencil pocket. The cuffs and waistband are rib knit. The sleeves have elbow patches. The jacket is fully lined with quilted batting material. (See figure 1.)

3.4.1 Figure. Figure 1 is furnished solely for guidance and information. Should variation from the written specification appear in the figure, the written specification shall govern.

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3.5 Patterns. Standard patterns which provide a 1/2 inch seam allowance for double-lapped, double-stitched seams for attaching cuffs to sleeves, joining yoke to back, top and under sleeve elbow patches, and attaching waistband to jacket and 3/8 inch for all other seams, will be furnished by the Government. The standard patterns shall not be altered in any way and are to be used for cutting contractor's working patterns. The working patterns shall be identical to the standard patterns.

3.5.1 List of pattern parts. The component parts of the jacket shall be cut from the specified materials in accordance with pattern parts indicated in table I.

TABLE I. List of pattern parts

<u>Material</u>	<u>Nomenclature</u>	<u>Cut parts</u>
Aramid oxford, 6 oz.	Front	2
	Back	1
	Collar (top collar and interlining)	2
	Undercollar	1
	Neck tab	2
	Top sleeve	2
	Undersleeve	2
	Pocket	4
	Welt	2
	Utility pocket	1
	Pencil pocket upper	1
	Pencil pocket lower	1
	Slide fastener cover	1
	Right front facing	1
	Left front facing	1
	Front extension	2
	Slide fastener reinforcement	2
	Pocket flap	2
	Elbow patch top sleeve	2
	Elbow patch under sleeve	2
	Yoke	1
Aramid batting	Front lining	2
	Back lining	1
	Top sleeve lining	2
	Undersleeve lining	2
Aramid plain or pajama check weave, 3 oz.	Armhole extension (back)	2
	Armhole extension (front)	2



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3.6 Construction. The construction shall conform in all respects to the requirements specified in table II and herein.

3.6.1 Stitches, seams, and stitching. All stitches, seams, and stitching shall conform to FED-STD-751. Where two or more seam or stitch types are given for the same part of an operation, any one of them may be used. Seam allowances shall be maintained with seams sewn so that no raw edges, run-offs, twists, pleats, puckers, or open seams will result. All seams shall start and finish evenly. The edge and top stitching shall be uniformly gaged. Seams required to be worked out, that have a depth between the fold of 1/16 inch or more, shall be considered a defect. The gage of stitching on double-lapped and double-stitched seams shall be 1/4 to 5/16 inch, but the same gage shall be used on all double stitched seams throughout the jacket. The gage of stitching for safety stitch construction shall be  $3/8 \pm 1/16$  inch. The guides and knives on the safety stitch machines shall be set to trim only the ravelled ends of the fabric.

3.6.1.1 Type 301 stitching. Ends of stitching shall be backstitched or overstitched 1/2 inch minimum except when caught in other stitching or turned under in a hem. The ends of the label and hand stitching shall be overlapped not less than three stitches. Thread tension shall be maintained so that there will be no loose stitching resulting in puckering of the materials sewn. The lock shall be embedded in the materials sewn.

3.6.1.1.1 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 inch back of the end of the stitching. 1/

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

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

3.6.1.2 Type 401 stitching. Thread tension shall be maintained so that there will be no loose stitching. Both ends of all seams or stitching produced with 401 stitch type, when not turned under in a hem or held down by other stitching, shall have a 1/2 to 3/4 inch chain extending beyond each end. The looper (underthread) shall be on the inside of the jacket. All repairs shall be in accordance with 3.6.1.1.1a and 3.6.1.1.1b. Repairs may be made using 301 stitch type.

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3.6.1.3 Types 503, 504, 515, 516, and 519 stitching. Thread tension shall be maintained so that there will be no loose stitching. All repairs shall be in accordance with 3.6.1.1.1a and 3.6.1.1.1b, except substitute 3/4 inch for 1 inch wherever 1 inch appears.

3.6.1.4 Bartacks. Unless otherwise specified, bartacks shall be as specified in table II. Bartacks shall be free of thread breaks and loose stitching.

3.6.1.5 Thread ends. All thread ends that are visible on the finished item shall be trimmed to a length of not more than 1/4 inch.

3.7 Repairs. Repairs such as mends, darns, patches, or splices are not permitted on the jacket.

3.8 Manufacturing operations requirements. The jacket shall be manufactured in accordance with operations specified in table II. The contractor is not required to follow the exact sequence of operations listed. Any additional basting or holding stitching used to facilitate manufacture is permissible provided the thread is removed or does not show on the finished jacket.

3.9 Use of automated apparel equipment. Automated apparel equipment may be used to perform any of the operations specified in table II, providing that the seam and stitch type are as specified and the finished component conforms to the required configuration. When a government furnished shaper pattern is forwarded, the component shall conform to that pattern.

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NO.	TABLE II. MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
1.	<p><u>Cutting.</u></p> <p>a. Cut the jacket parts in strict accordance with the patterns which show size, shape, directional lines and placement of pockets for proper assembly.</p> <p>b. Cut the component parts out of one piece of material except the undercollar, collar interlining, neck tab, front pockets and slide fastener reinforcements which may be cut from ends. Parts cut from ends shall approximate the shade of the jacket.</p> <p>c. Cut the lining parts out of the same piece of material. (Care should be taken in cutting the batting material and handling the cut parts in that the ends of the quilting stitching have a tendency to run back). The face side of the lining parts shall face the wearer (see 3.3.3).</p> <p>NOTE: Broken stitches of the quilting pattern may be repaired by stitching back of each end of break not less than 1 inch with type 301 stitching and the same type and color of thread.</p> <p>d. Cut the armhole extension pieces out of the same piece of material.</p> <p>e. Cut the tape for hanger loops 4-1/4 to 4-1/2 inches long.</p>						

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
1.	<p><u>Cutting.</u> (cont'd)</p> <p>f. Cut hook and loop tapes in accordance with the following:</p> <p>(1) Four 5/8 inch wide hook and loop tapes 1-1/2 inches long for front pockets, or four 1-1/2 inches wide hook and loop tapes 5/8 inch long, as applicable.</p> <p>(2) Two 1 inch wide hook and loop tapes 1 inch long for neck tab and collar (operations 9 and 10).</p> <p>(3) One 1 inch wide hook and loop tape 12-1/2 ± 1/4 inches long for retrieval strap opening.</p> <p>g. Cut webbing for pull tab on retrieval opening 3 to 3-1/2 inches long.</p> <p>h. Cut the cord beading for front opening 1/2 inch longer than the slide fastener chains (3.3.9.1).</p> <p>i. Cut the knit waistband (one each jacket) of sufficient length to comply with the finished waistband length requirements of operation 19.g., and in the following widths:</p> <p style="margin-left: 40px;">X-Small - 24 inches Small - 25 inches Medium - 26 inches Large - 27 inches X-Large - 28 inches</p>						

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
2.	<u>Replacement of defective or damaged parts.</u>  Care shall be exercised during the spreading, cutting and manufacturing operations to assure that material defects and damages as specified in 4.4.3 are excluded and replaced with non-defective and properly matched material.						
3.	<u>Marking.</u>  a. Mark, ticket or bundle all component parts of the jacket except those parts cut from ends to insure correct size, proper assembly, and uniform shade throughout the jacket.  b. Any method of marking may be used except:  (1) Metal fastening devices. (2) Sew-on tickets. (3) Adhesive type tickets which leave traces of adhesive on the material after removal of the tickets.  c. The use of ink pad numbering machine, rubber stamp or pencil will be acceptable provided the numbers do not show through the outside of the jacket and the numbers are covered by the seam allowance.  <u>Attach slide fastener thongs.</u>  Thread thongs through fastener tab pull and, with ends even, bartack together with two vertical 1/2 inch						
4.		Bartack		28 per bartack	B	B	

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
4.	<u>Attach slide fastener thongs.</u> (cont'd)  bartacks 1/2 to 3/4 inch apart, with the end of the top bartack 1/4 to 1/2 inch from the end of the metal tab pull.						
5.	<u>Make lining sleeves.</u>  Join lining top sleeve to under sleeve. Spread seams open and stitch through seam allowance and sleeve with two rows of stitching 1/4 to 3/8 inch apart and equally spaced on both sides of joining seam.	301 or 401	SSz-3	10-12 10-12	E E	E B	
6.	<u>Make lining back.</u>  a. Join back armhole extension pieces to armholes with safety stitched seams.  b. Position size label centered on inside of back lining (1/2 inch off center tolerance) with the top of the label not less than 1-3/4 inches nor more than 2-1/2 inches from slash mark on back, and stitch on all four sides, through lining with 1/8 + 1/16 inch stitch margin. Stitching shall not be through the printing.  c. Combination identification-size label, when used, shall be positioned as indicated for size label.	515 or 516 or 519  301	SSa-2  LSbj-1	10-12  10-12	E Chain stitching E   E Overedge stitching  B	B  B	
		301	LSbj-1	10-12	B	B	

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
7.	<u>Make lining fronts and attach labels.</u>						
	a. Join front armhole extension piece to armholes with a safety stitched seam.	515 or 516 or 519	SSa-2	10-12	E	B	Chain stitching E   E
	b. Position instruction label to inside of right front lining with bottom of label 1 to 1-1/2 inches from bottom raw edge and left side of label 1 to 1-1/2 inches from front raw edge. Stitch on all four sides with 1/8 + 1/16 inch stitch margin. Stitching shall not be through printing.	301	LSbj-1	10-12	B	B	Overedge stitching
	c. Position identification label directly above the instruction label with left sides of labels lined up. Bottom of identification label shall be no more than 1/2 inch above top of instruction label. Stitch on all four sides with 1/8 + 1/16 inch stitch margin. Label may be so positioned that the bottom may be caught in the top row of instruction label stitching. Stitching shall not be through printing.	301	LSbj-1	10-12	B	B	
8.	d. Combination identification-instruction label, when used, shall be positioned as indicated for instruction label.	301	LSbj-1	10-12	B	B	
	<u>Join lining parts.</u>						
	a. Join lining fronts to back at sides and shoulders. Spread seams open and stitch through seam allowance and lining with two rows of stitching 1/4 to 3/8 inch apart and equally spaced on both sides of joining seam.	301 or 401 301	SSz-3(a)  SSz-3(b)	10-12 10-12 10-12	E E E	E B E	

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
8.	<u>Join lining parts.</u> (cont'd)  b. Set lining sleeves with a safety stitched seam.	515 or 516 or 519	SSa-2	10-12	E Chain stitching E Overedge stitching		
9.	<u>Make neck tab.</u>  a. Superimpose neck tab pieces and stitch around top, front and bottom edges, leaving the narrow end of tab open for turning.  b. Trim corner, turn, work out edges and edge stitch 1/8 to 3/16 inch from edges.  c. Position two 1 inch wide hook tapes (operation 1.f (2)) (one each side) to the top end of the tab, as indicated by marks on pattern, and stitch on all four sides 1/16 to 3/32 inch from edge of tape.	301 or 401  301  301	SSe-2(a)  SSe-2(b)  LSbj-1	10-12 10-12  10-12  10-12	B B  B  E	B B  B  E	
10.	<u>Make collar.</u>  a. Superimpose undercollar on interlining. Position the two 1 inch wide loop tapes on undercollar, as indicated by marks on pattern and stitch to undercollar, through interlinings, on all four sides 1/16 to 3/32 inch from edge of tape.  b. Position neck tab on undercollar, as indicated by marks on pattern, with finished end toward front of collar and stitch tab to undercollar through interlining. Turn neck tab back and raise stitch 1/4 to 3/8 inch from turned edge.	301  301  301	LSbj-1  LSbk-2(a) and LSbk-2(b)	10-12  10-12  10-12	E  B E	E  B E	

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
10.	<u>Make collar.</u> (cont'd)  c. Superimpose top collar on undercollar and join sides and top. Stitching shall be 3/8 inch from edge through top collar, interlining and undercollar. Trim point, turn, work out edges and point, and edge stitch ends and top 3/16 to 1/4 inch from edges. Stitching shall start and end 3/4 ± 1/16 inch from bottom raw edges to allow for collar joining operation.	301 or 401 301	SSe-2(a) and SSe-2(b)	10-12 10-12 10-12	B B B	B B B	
11.	<u>Make and attach utility and pencil pocket.</u>  a. Turn outer edge of slide fastener cover under 1/2 ± 1/16 inch. Turn inner edge under 7/8 ± 1/16 inch enclosing other turned edge. Position slide fastener on underside of cover, with center chain (with slide fastener closed) even with the folded edge of the 7/8 inch fold (inner edge) and stitch tape to cover with two rows of stitching 1/4 to 5/16 inch gage with the back row 1/16 to 3/32 inch from edge of fastener tape. Bridge of slide fastener shall finish toward top of sleeve.  b. Turn under top raw edge of upper pencil pocket 1/4 ± 1/16 inch and hem. Turn under top raw edge of lower pencil pocket 1/4 ± 1/16 inch and hem.  c. Position top edge of lower pencil pocket to bottom of upper pencil pocket as indicated by marks on pattern. Turn under side and bottom edges of the combined pencil pocket and stitch to the utility pocket as indicated by marks on pattern.	301          301  301	LSbj-2          EFb-1  LSd-1	10-12          10-12  10-12	E          B  E	E          B  E	

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD	
					NEEDLE	BOBBIN/ LOOPER COVER
11.	<u>Make and attach utility and pencil pocket.</u> (cont'd)					
	d. Place a vertical row of stitching through the center (1/8 inch off center tolerance) of upper and lower pencil pockets. Stitching shall be through all plies, forming two compartments in each pencil pocket.	301	SSv-1	10-12	B	B
	e. Place vertical 1/2 inch bartacks on ends of pencil pocket openings, superimposed on rows of side stitching, and center stitching of upper and lower pencil pockets and at bottom of lower pencil pocket, at sides and center making a total of nine bartacks.	Bartack		28 per bartack	B	B
	f. Close bottom corners of utility pocket and stitch, forming a bellows bottom. Turn and work out edges and points.	301	SSa-1	10-12	E	E
	g. Turn back inner side edge of utility pocket 7/8 inch. Position free part of slide fastener tape on turned portion, with center of chain (with slide fastener closed) even with inner turned edge of pocket and stitch tape to pocket with two rows of stitching 1/4 to 5/16 inch gage with the back row 1/16 to 3/32 inch from edge of tape.	301		10-12	E	E
	h. Position pocket on left top sleeve on marks indicated on pattern. Turn under top, bottom and side raw edges and stitch pocket to sleeve.	301	LSd-1	10-12	E	E
	i. Bartack each end of slide fastener opening with a horizontal 1/2 inch bartack extending from slide fastener cover to pocket. Bartack shall be $1/4 \pm 1/8$ inch from top and bottom edges of pocket.	Bartack		28 per bartack	B	B

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					NEEDLE	BOBBIN/ LOOPER	COVER
12.	<u>Make jacket sleeves.</u> a. Turn under side and straight edges of top and under sleeve elbow patches 1/2 inch. b. Position the top and under sleeve elbow patch to the respective sleeve as indicated by marks on pattern. With raw edge of patches even with raw edge of sleeve, stitch patches to sleeves 1/16 to 3/32 inch from folded edges of patches. The stitching may be continued along raw edge. c. Join jacket top sleeve to under sleeve with a double-lapped, double-stitched seam. Top sleeve shall be lapped on under sleeve. The top and bottom edges of the elbow patches, after joining the sleeves, shall not be more than 1/4 inch out of alignment.	301  301	LSd-1 and SSa-1	10-12  10-12	E  E	E  E	
13.	<u>Make pocket welts and flaps.</u> a. Fold welt pieces in half and stitch sides. Turn and work out edges. b. Position two 5/8 by 1-1/2 inch hook portions of fastener tape to welt as indicated by marks on pattern and stitch on all four sides 1/16 to 3/32 inch from edge of tape, through all plies. c. Position two 5/8 by 1-1/2 inch loop portions of fastener tape to flaps as indicated by marks on pattern and stitch on all four sides 1/16 to 3/32 inch from edge of tape.	301 or 401  301	LSc-2   SSa-1  LSbj-1  LSbj-1	10-12  10-12  10-12	E  E  E	E  E  E	

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
13.	<u>Make pocket welts and flaps.</u> (cont'd)  d. Fold pocket flap in half and stitch sides 3/8 inch from edges.  e. Turn, work out edges and edge stitch 1/16 to 1/8 inch from side and folded edge.	301 or 401  301	SSe-2(a)  SSe-2(b)	10-12 10-12  10-12	E E  E	E B  E	
14.	<u>Make fronts.</u>  a. Position pocket pieces on front, as indicated by marks on pattern, with pocket welt (hook tape face down), between front and top pocket (piece finishing against front). Stitch through pocket pieces, welt and front, with two rows of stitching 3/4 to 7/8 inch gage, equally spaced from cut line. Cut pocket opening and tongue-notch ends.  b. Turn seam allowance on unwelted side of opening toward body jacket and raise stitch the length of the opening, through front, 1/8 to 3/16 inch from joining seam.  c. Turn pocket pieces to inside. Raise stitch the length of the welted opening, through front, welt and pocket 1/8 to 3/16 inch from joining seam.  d. Join outer edges of pocket pieces together with a safety stitch.	301   301   301   515 or 516 or 519	LSbj-1   LSq-2(b)  LSq-2(b)  SSa-2	10-12   10-12  10-12  10-12	B   E  E  E Chain stitching E Overedge stitching	B   E  E  B	

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
14.	<u>Make fronts.</u> (cont'd)						
	e. With pocket smooth and flat, stitch down ends of welt, through welt and pocket with two rows of stitching 1/4 to 5/16 inch gage with the outer row 1/16 to 3/32 inch from end of welt. Continue stitching across top edge of welt to close box. Ends of welt shall cover ends of pocket opening.	301		10-12	E	E	
	f. Place a 1/2 inch bartack on each end of pocket opening superimposed on inner row of the end stitching of welt. Bartack shall not extend on to jacket and shall end 1/16 to 3/16 inch from end of welt.	Bartack		28 per bartack	B	B	
	g. Position raw edge of pocket flap to front as indicated by marks on pattern and stitch 1/4 inch from raw edge.	301 or 401	LSbk-2(a)	10-12 10-12	E E	E B	
15.	h. Turn flap down and raise stitch 1/4 to 5/16 inch from turned edge.	301	LSbk-2(b)	10-12	E	E	
	<u>Make jacket backs.</u>						
	a. Fold tape for pull tab in half so that it finishes 1-1/2 to 1-3/4 inches in length and stitch the sides and folded edge 1/16 to 1/8 inch from edge.	301	SSa-1 and OSf-1	10-12 10-12	E E	E E	
	b. Position loop portion of fastener tape on face side of yoke as indicated by marks on pattern, and with pull tab positioned as indicated and sandwiched between loop and yoke, stitch the loop tape on all four sides 1/16 to 3/32 inch from edges. The pull tab shall extend 1 to 1-1/8 inches beyond the edge of the loop tape.	301	LSbj-1	10-12	E	E	

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
15.	<u>Make jacket backs.</u> (cont'd)  c. Turn under raw edge of yoke at opening 1/4 to 3/8 inch, and with the corners folded in at approximately a 45 degree angle stitch 1/16 to 3/32 inch from folded edge.  d. Position hook portion of fastener tape on face side of back as indicated by marks on pattern and stitch on all four sides 1/16 to 3/32 inch from edges.  e. Turn under raw edge of back at opening 1/4 to 3/8 inch and with the corners folded in at approximately a 45 degree angle, stitch 1/16 to 3/32 inch from folded edge.  f. Position yoke on back, face to face, and with raw edges even, stitch 1/2 + 1/16 inch from raw edges with stitching terminating 1/4 to 3/8 inch beyond side edges of fastener tape on both sides.  g. Turn yoke up to finished position and top stitch across yoke 1/16 to 1/8 inch from side to side, pulling the back out of the way at the opening so that it is not caught in the stitching. The finished opening shall measure 11-3/4 to 12 inches.	301	EFa-1	10-12	E	E	
		301	LSbj-1	10-12	E	E	
		301	EFa-1	10-12	E	E	
		301 or 401	LSq-2(a)	10-12 10-12	E E	E B	
		301	LSq-2(b) and OSf-1	10-12 10-12	E E	E E	
16.	<u>Join back to fronts.</u>  Join back to fronts at shoulders and at sides with double-lapped, double-stitched seams and with fronts lapped on back.	301 or 401	LSc-2	10-12 10-12	E E	E B	

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
17.	<u>Set sleeves.</u> a. Set jacket sleeves with a safety-stitched seam.  b. Turn seam allowance toward shoulder and raise stitch around the top of sleeve from notch to notch 1/8 to 3/16 inch from joining seam.	515 or 516 or 519  301	LSbm-3(a)  LSbm-3(b)	10-12  10-12	E Chain stitching E   E   Overedge stitching	B	
18.	<u>Make fronts and attach slide fastener.</u> a. With front raw edges even, join extension piece to bottom of front, with stitching starting at front edge and ending approximately 1 inch from back edge of extension piece. b. Turn seam allowance toward top of jacket and raise stitch 1/8 to 3/16 inch from joining seam, with stitching beginning at front edge and ending approximately 1-1/2 inches from back edge of extension piece. c. Fold fronts as indicated by marks on pattern. Insert cord in fold. Cord shall extend 1/4 to 1/2 inch at neck edge and at bottom. Stitch front edge, enclosing cord. Cord shall not be caught in the stitching. d. Place slide fastener reinforcement piece under turned portion of front. Position slide fastener tape on turned portion of front, with edge of chain even with corded edge, and stitch 1/4 to 3/8 inch	301  301  301  301	LSq-2(a)  LSq-2(b)  OSf-1  SSa-1	10-12  10-12  10-12  8-12	E  E  B  E	E  E  B  E	



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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD	
					NEEDLE	BOBBIN/ LOOPER COVER
18.	<u>Make fronts and attach slide fastener.</u> (cont'd)					
	from back edge of tape (top end of slide fastener tape shall be caught in collar joining seam) (see operation 22.b).					
	e. Position front raw edge of facing even with edge of slide fastener tape and stitch 3/8 inch from raw edge.	301	LSq-2(a)	10-12	E	E
	f. Turn left (as worn) facing back and edge stitch 1/8 to 3/16 inch from joining seam.	301	LSq-2(b)	10-12	E	E
	g. Fold right facing back on itself at fold mark indicated on pattern. Close top and bottom of facing with a row of stitching from fold to notch. Slash seam allowance at end of stitching. Turn to right side, work out edges and edge stitch 1/8 to 3/16 inch from turned edges. Continue stitching entire front 1/8 to 3/16 inch from fold.	301	SSe-2 and OSf-1	10-12 10-12	E E	E E
19.	h. With facings and fronts in finished position, place a row of stitching, through all plies, 5/8 to 11/16 inch from edge of cord. Stitching shall be through slide fastener tape.	301	SSv-1	10-12	E	E
	<u>Attach waistband.</u>					
	a. Fold bottom edge of front extension to inside so that bottom raw edge aligns with notch. Fold bottom raw edge of front facing to the inside 1/4 to 3/8 inch. With back edges of facing and extension even, interlock the folded edges of the facing and extension	301		6-12	B	B

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
19.	<p><u>Attach waistband.</u> (cont'd)</p> <p>and tack the interlocked portion approximately 1/4 inch from back edge. The tack shall be parallel to the back edge. The joining of the facing and extension shall simulate a LSc seam.</p> <p>b. Superimpose the bottom front pieces on end of knit waistband and with top and back raw edges of extension pieces even with raw edges of waistband, join end of waistband to back edges of front extension piece and facing with one row of stitching <math>1/2 \pm 1/16</math> inch from raw edge.</p> <p>c. Turn seam allowance toward front and raise stitch <math>1/8</math> to <math>3/16</math> inch from joining seam.</p> <p>d. Superimpose knit waistband on bottom of liner (face to face) and with raw edges even, join inside top edges of knit waistband to liner.</p> <p>e. Superimpose free edge of waistband on bottom of jacket (face to face) and with bottom raw edges even, join edge of waistband to jacket.</p> <p>f. Turn seam allowance toward top of jacket and raise stitch <math>1/8</math> to <math>3/16</math> inch from waistband to jacket joining seam, with the stitching joining the raised stitching of waistband extension pieces.</p> <p>g. Fold waistband to finished position. Turn jacket up over waistband and with lining and jacket face to face, waistband enclosed between lining and jacket,</p>	301	LSq-2(a)	10-12	E	E	
		301	LSq-2(b)	10-12	E	E	
		301	SSa-1	10-12	E	E	
		301	LSq-2(a)	10-12	E	E	
		301	LSq-2(b)	10-12	E	E	
		301	SSa-1	10-12	E	E	

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD	
					NEEDLE	BOBBIN/ LOOPER COVER
19.	<u>Attach waistband.</u> (cont'd) and all raw edges even, stitch through all plies, closing the jacket bottom to within 1-1/2 to 2 inches from front edges of knit waistband. The waistband shall finish 3-1/2 to 4 inches in length.					
20.	<u>Attach cuffs and close fronts.</u> a. Stitch together raw edges of cuff with an over-edge stitch $3/16 \pm 1/16$ inch wide. b. Position cuff between liner and jacket sleeves (face to face) and with raw edges of sleeve bottoms even with overedge of cuff, stitch parts together 1/2 inch from edge. or Position cuff between liner and jacket sleeves (face to face) and with all raw edges even, safety stitch the layers together. The finished seam shall be 1/2 inch wide. c. Stitch raw edges of facing to lining with facing and lining face to face.	503 or 504  301 or 401  516 or 519  301	SSa-1  SSq-2(a)  SSa-2  SSa-1	6-8 6-8  10-12 10-12  10-12  10-12	B  E E  E  E	B  E B  E  E
21.	<u>Tack linings and close bottom.</u> a. Superimpose sleeve setting seam allowances of jacket and lining at underarm and stitch together, through seam allowances, tacking jacket to lining. Stitching shall be $1/2 \pm 1/16$ inch long with ends tacked. A straight line tack may be used.	301	SSa-1	10-12	E	E

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD	
					NEEDLE	BOBBIN/ LOOPER COVER
21.	<u>Tack linings and close bottom.</u> (cont'd)					
	b. Turn sleeves to finished position.					
	c. Turn cuff joining seam allowances toward sleeve and stitch with one row of stitching, through all plies, 1/4 to 3/8 inch from cuff joining seam.	301	SSq-2(b)	10-12	E	E
	d. With bottom of front extension piece turned under stitch bottom closed through all plies with stitching 1/16 to 1/8 inch from turned edge. Stitching shall extend from jacket front to start of knit waistband.	301	LSc-1	10-12	E	E
22.	<u>Set collar.</u>					
	a. Stitch lining to jacket at neck with one row of stitching 1/8 to 3/16 inch from raw edges, catching hanger at center back of neck (hanger on finished jacket shall measure $3-1/2 \pm 1/4$ inches with ends $2-1/2 \pm 1/4$ inches apart).	301 or 401	SSa-1	10-12 10-12	B B	B B
	b. Join undercollar and interlining to jacket, catching the ends of slide fastener tapes and hanger loop in line of stitching.	301	SSa-1	10-12	E	E
	c. Turn collar up, turn under raw edge, and stitch collar to lining with stitching going through all plies. Complete edge stitching at each end of collar.	301	Lsd-1	10-12	E	E
23.	<u>Finish back.</u>					
	a. Slash liner at back as indicated by mark on pattern. Turn up bottom of yoke (portion with loop	301	SSbc-1	10-12	E	E

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					NEEDLE	BOBBIN/ LOOPER COVER
23.	<u>Finish back.</u> (cont'd)					
	attached) through opening in liner and stitch through all plies along top folded edge with stitching superimposed on the previous line of stitching. The stitching shall continue along the sides where the corners were turned in to form a 45 degree angle.					
	b. With yoke portion of opening pulled out of the way, turn top of back (portion with hook attached) down through opening in liner and stitch through all plies along bottom folded edge of turned portion. The stitching shall be superimposed on the previous line of stitching and shall continue along the sides where corners were turned to to form a 45 degree angle.	301	SSbc-1	10-12	E	E
	c. Turn jacket to finished position and place five 3/4 inch bartacks positioned as follows on yoke:  (1) One at each top corner of opening superimposed on the diagonal stitching.  (2) One on each side of opening at bottom, diagonally in line with the top bartacks. The bartacks shall not extend below the back to yoke joining seam. The sides of the fastener tape shall be caught in the bartacking.  (3) A horizontal bartack centered on pull tab with bartack superimposed on the edge stitching of the yoke.	Bartack  Bartack  Bartack		42 per bartack  42 per bartack  42 per bartack	B  B  B	B  B  B

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NO.	TABLE II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
24.	<u>Clean jacket.</u> a. Trim and remove all thread ends. b. Remove all spots and stains. c. Remove all size markings. d. Close slide fasteners and prepare for packaging.						

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3.10 Finished measurements. The finished dimensions for the jacket shall be as shown in table III. A plus or minus 3/4 inch tolerance is allowed on all measurements.

TABLE III. Finished measurement (inches)

	Short	Regular	Long
<u>Half chest 1/</u>			
X-Small	21	21	21
Small	23	23	23
Medium	25	25	25
Large	27	27	27
X-Large	29	29	29
<u>Back length 2/</u>			
X-Small	21-5/8	22-5/8	23-5/8
Small	22-1/8	23-1/8	24-1/8
Medium	22-5/8	23-5/8	24-5/8
Large	23-1/8	24-1/8	25-1/8
X-Large	23-5/8	24-5/8	25-5/8
<u>Sleeve length 3/</u>			
X-small	13-5/8	14-5/8	15-5/8
Small	13-5/8	14-5/8	15-5/8
Medium	13-5/8	14-5/8	15-5/8
Large	13-5/8	14-5/8	15-5/8
X-Large	13-5/8	14-5/8	15-5/8

1/ Half chest. Jacket front closed, at base of armhole, from folded edge to folded edge.

2/ Back length. At center back, from collar joining seam to top of knit waistband.

3/ Sleeve length. From armhole along underarm seam to top of cuff.

3.11 Workmanship. The finished jacket shall conform to the quality of product established by this document and the occurrence of defects shall not exceed the applicable acceptable quality level.

#### 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.

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

4.1.1 Responsibility for compliance. All items must 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 Responsibility for dimensional requirements. Unless otherwise specified in the contract or purchase order, the contractor is responsible for ensuring 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 ensure compliance with all dimensional requirements.

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

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

4.3 First article inspection. When a first article is required (see 3.1 and 6.2), it shall be examined for the defects specified in 4.4.3 and 4.4.4.

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

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

4.4.2 In-process inspection. Inspection of subassemblies shall be made to ascertain that construction details which cannot be examined in the finished product are in accordance with specified requirements. The Government reserves the right to exclude from consideration for acceptance, any material or service for which in-process inspection has indicated nonconformance.

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4.4.3 End item visual examination. The end items shall be examined for the defects listed in table IV. The lot size shall be expressed in units of jackets. The sample unit shall be one jacket. The inspection level shall be II and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 2.5 for major defects, 15 for major and minor A combined defects, and 40 for total (major, minor A, and minor B combined) defects.

TABLE IV. End item visual defects

Examine	Defect	Classification	
		Major	Minor A      B
Material defects and damages	Hole, cut, tear, or needle chew		
	- On outside, any	101	
	- On inside:		
	- up to 1/4 inch in diameter or length, inclusive		301
	- more than 1/4 inch up to 1/2 inch inclusive		201
	- more than 1/2 inch	102	
	Mend, darn, or patch (in diameter or length)		
	- On outside, any	103	
	- On inside:		
	- 1/4 inch up to 1/2 inch inclusive		302
	- more than 1/2 inch		202
	Friction burn:		
	- when fibers are broken (use defect classification specified above for "Hole, cut, tear or needle chew")		
	- when fibers are not broken, more than 1/4 inch in length		303
	Drill hole exposed on outside		304
	Weakening defects:		
	- Smash	104	
	- Multiple float or loose slub:		
	- on outside		203
	- on inside		305
	Unsightly slub or shade bar:		
	- on outside		204
	- on inside		306
	One or more rows of stitching omitted in quilting of lining	105	
	Piecing or splicing on lining	106	



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

<u>Examine</u>	<u>Defect</u>	<u>Classification</u>	
		<u>Major</u>	<u>Minor</u> <u>A</u> <u>B</u>
Material defects and defects (cont'd)	Thick or thin place in the quilting of lining	107	
	More than 1-1/2 inches of continuous broken or missing stitches in the quilting	108	
Material defects: Cuffs and waistband	Run or dropped stitch	109	
	Abrasion mark, resulting in a weak area	110	
	Not specified size	111	
Shaded parts	Shaded part - outer shell (except parts that may be cut from ends)		205
	Shaded lining part		307
Cleanness	Any spot or stain on outside		308
	Thread ends not trimmed, or loose threads not removed throughout jacket (except for thread ends of quilting of lining material)		309
	One or more shade markings not removed		310
	Shade marking visible on outside		311
Component and assembly	Any component part or required operation omitted (unless otherwise classified herein)	112	
	Any operation not performed as specified (unless otherwise classified herein)		206
	Lining set into jacket with natural thread of dumbbell pattern stitching facing wearer	113	
Cutting	Any component part not cut in accordance with directional lines as indicated by marks on pattern or not cut in accordance with document requirements	114	

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

Examine	Defect	Classification	
		Major	Minor
		A	B
Seams and stitching	Accuracy of seaming:		
	- Seam twisted, puckered, or pleated		207
	- Part of jacket caught in unrelated operation or stitching	115	
	- End of stitching, when not caught in other seam or stitching, backstitched or overstitched less than 1/2 inch		312
	- Thread break stitched less than 1 inch beyond each end of break		313
	- Ends of a continuous line of stitching overlapped less than 1 inch on all seams		314
	Gage of stitching and seam allowance:		
	- Irregular, i.e., unevenly gaged, or corresponding stitching not uniform (to be scored only where condition exists along major portion of seam)		208
	- Not width specified or not within range of gage specified or varies more than 1/16 inch when no range is specified		315
	- Edge or raised stitching sewn too close to edge, resulting in damage to cloth	116	
	Open seam (stitches skipped, broken, or missing):		
	- Any seam open by:		
	- up to 1/4 inch, inclusive		316
	- more than 1/4 inch up to 1 inch inclusive		209
	- more than 1 inch	117	
	Raw edge:		
	- 1/8 inch up to 1/4 inch, inclusive		317
	- more than 1/4 inch to 1 inch, inclusive		210
	- more than 1 inch	118	
	Any raw edge caused by omission of overedge stitching for a distance of 3 inches or more		211

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

<u>Examine</u>	<u>Defect</u>	<u>Classification</u>	
		<u>Major</u>	<u>Minor</u>
		A	B
Seams and stitching (cont'd)	Run-offs (on edge or raised stitching):		
	- 1/4 inch up to 1/2 inch, inclusive		318
	- more than 1/2 inch	212	
	Seam and stitch type:		
	- Seam or stitch type not as specified	213	
	- Looper thread of 401 stitch type on joining seam finishing on outside of seam		319
	Stitch tension:		
	- Loose tension resulting in a loose seam	119	
	- Loose tension on raised or edge stitching		214
	- Tight tension (stitches break when strain is applied in direction of seam or stitching)	120	
	- Thread tension of liner dumbbell pattern not balanced, i.e., natural thread shows on face of quilted batting		215
	Stitches per inch (except on labels) (to be scored only when the condition exists on the major portion of the seam):		
	- more than the maximum specified or less than the minimum specified		216
	Stitches per inch less than the minimum specified on labels		320
	Stitches skipped, broken, or missing on edge or raise stitching:		
	- up to 1 inch		321
	- more than 1 inch	217	
Bartacks	One or more omitted, or misplaced not serving intended purpose (unless otherwise classified herein)		218

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

Examine	Defect	Classification	
		Major	Minor
		A	B
Bartacks (cont'd)	Not specified size		322
	Loose, incomplete or broken stitching		323
Slide fastener	Defective, affecting function	121	
	Not type or size specified		219
	Slide fastener tape cut or frayed	122	
	Thong missing		324
	Thong not specified size		325
	Slide fasteners attached with less than two rows of stitching through length of tape (each side)	123	
	Ends of thong not dipped or seared		326
	Ends of thong fray when tugged at		327
Collar	Fullness or puckers on top collar		220
	Tight at joining to neck seam, causing puckers or pleats on front or back		221
	Side ends not properly worked out, having a fold of more than 1/8 inch		222
	Twisted	124	
	Points at ends of collar uneven in length 3/8 inch or more, or not uniform in shape		223
	Neck tab not finished flat		224
	Fastener tape misplaced not serving intended purpose		225
	Fastener tape not specified size		328
Hanger loop	Missing or misplaced		226
	Not specified size		329
Fronts	Uneven at bottom by 1/2 inch or more or at top by 1/4 inch or more when closed		227
	Fastener tape set too loosely or too tight, causing distortion on tapes or front	125	
	Top end of fastener tape not caught in collar joining seam	126	

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

Examine	Defect	Classification	
		Major	Minor A B
Fronts (cont'd)	Cord edges of front opening not abutted or overlapping 1/8 inch or more when fastened		228
	Cording at edges not extending the full length of the opening		229
Front pockets	Pockets or flaps out of alignment by 1/4 inch or more		230
	Welts or flaps not uniform in length by more than 1/4 inch		231
	Hook or loop fastener tape not specified size		232
	Fastener part missing	127	
	Welt not smooth and flat when pocket is closed		330
	Hook or loop portions of fastener tape not positioned as specified	128	
	Flaps not positioned as specified		233
	Hook and loop fastener tapes reversed, i.e., hook portion on pocket flap, and loop portion on welt		234
Utility and pencil pocket	Pocket set on crookedly		235
	Fastener bridge not at top	129	
	Edge of pocket pleated or twisted in stitching		236
	Edge of slide fastener tape extending beyond edge of pocket by 1/8 inch or more	130	
	Pencil pocket compartments uneven in width by more than 1/4 inch		237
	Slide fastener (when in closed position) exposed more than 1 inch		238
Sleeves	Reversed	131	
	Sleeve or body of jacket puckered or pleated at armhole		239

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

Examine	Defect	Classification	
		Major	Minor A B
Sleeves (cont'd)	Bottom of sleeve twisted	132	
	Armhole seam not raise stitched at shoulder		240
	Cuff not specified size		241
	Without elbow patches	133	
Back	Hook or loop fastener tapes missing on retrieval strap opening	134	
	Hook or loop portions of fastener tape not positioned as specified		242
	Pull tab on retrieval strap opening omitted	135	
	Finished pull tab length less than 1 inch or more than 1-1/8 inches		331
	Retrieval strap opening less than 11-3/4 inches or more than 12 inches in length		243
Direction of seams	Fronts not lapped on back at shoulder or at side		332
	Front sleeve not lapped on back sleeve		333
Waistband	Not specified size	136	
Labels	Missing, incorrect, or illegible:		
	- size or combination identification size (where applicable)	137	
	- identification, instruction, or combination identification instruction (where applicable)		244
	Not stitched on all four sides		245
	Stitching through printing		246
	Size label off center by more than 1/8 inch, or any other label not positioned as specified		247

4.4.4 End item dimensional examination. The end items shall be examined for conformance to the dimensions specified in table III. Any dimension not within the specified tolerance (see 3.10) shall be classified as a defect.

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The lot size shall be expressed in units of jackets. The sample unit shall be one jacket. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 4.0.

4.4.5 Packaging examination. The fully packaged end items shall be examined for the defects listed below. The lot size shall be expressed in units of shipping containers. The sample unit shall be one shipping container fully packaged. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

<u>Examine</u>	<u>Defect</u>
Marking (exterior and interior)	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application.
Materials	Any component missing, damaged, or not as specified.
Workmanship	Inadequate application of components, such as: incomplete closure of container flap, loose strapping, inadequate stapling, or improper taping. Bulged or distorted container.
Content	Number of jackets per container is more or less than required. 1/ Size shown on one or more jackets not as specified on shipping container. 1/

1/ For this defect, one shipping container in the sample shall be examined.

4.4.6 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.

<u>Examine</u>	<u>Defect</u>
Finished dimensions	Length, width, or height exceeds specified maximum requirements.
Palletization	Pallet pattern 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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## 5. PACKAGING

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

5.1.1 Level A preservation. Each jacket, with slide fasteners closed, shall be neatly folded to measure approximately 23 inches in length by 14-1/2 inches in width. Each folded jacket shall be inserted in a close-fitting clear polyethylene film bag conforming to A-A-50083.

5.1.2 Commercial preservation. The jackets 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. Ten jackets of one class and size only, preserved as specified in 5.1, shall be packed in a snug-fitting fiberboard container conforming to style RSC-L, grade V2s of PPP-B-636. Level A unit packs shall be packed flat, ten 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 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 4.4.5. 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). Strapping shall be limited to nonmetallic strapping, except for type II, class F loads.

5.2.2 Level B packing. Ten jackets of one class and size only, 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, ten 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 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 4.4.5.

5.2.2.1 Weather-resistant fiberboard container. When specified (see 6.2), the shipping container shall be a grade V3c, V3s, or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with method III as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.4.5.



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

5.3 Palletization. When specified (see 6.2), jackets packed as specified in 5.2.2 or 5.2.3 shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Pallet types 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 C and D or film bonding means F or G. Pallet pattern shall be number 3 in accordance with appendix of MIL-STD-147.

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.

5.4.1 Polyethylene bagged unit packs. Polyethylene bagged unit packs shall have the required identification information legibly printed or stamped in black directly on the bag across the center face or on a white paper label inserted within the bag so as to permit ready identification.

## 6. NOTES

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

6.1 Intended use. The jacket is intended for wear by military personnel of the Department of Defense as part of the combat vehicle crewmen's and aviation crewmen's clothing.

6.2 Acquisition requirements. Acquisition documents must specify the following:

- a. Title, number, and date of this specification.
- b. Class and 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 a first article is required (see 3.1, 4.3, and 6.3).
- e. Levels of preservation and packing (see 5.1 and 5.2).
- f. Type and class of unit load required (see 5.2.1).
- g. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).
- h. When palletization is required (see 5.3).

6.3 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of FAR 52.209. The first article should be a preproduction sample. The contracting officer should specify the appropriate type of first article and the number of units

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to be furnished. The contracting officer should include specific instructions in acquisition documents regarding arrangements for selection, inspection, and approval of the first article.

6.4 Sample. For access to samples, address the contracting activity issuing the invitation for bids or request for proposal.

6.5 Suggested resin. A suggested resin (see 3.3.9.4) for dipping ends of slide fastener thongs is "No Fray No. 64", Champion Packaged Products, Inc., 4939 South Austin Avenue, Chicago, IL 60638.

6.6 Subject term (key word) listing.

Aircrew  
Aramid  
Clothing  
Coat  
Cold weather  
Combat vehicle crewman

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

Custodians:

Army - GL  
Navy - NU  
Air Force - 99

Preparing activity:

Army - GL  
(Project 8415-0798)

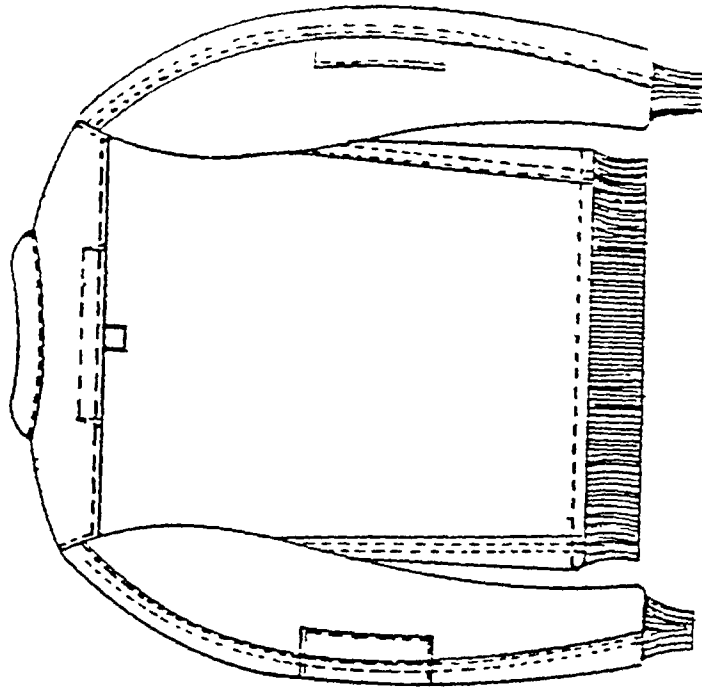
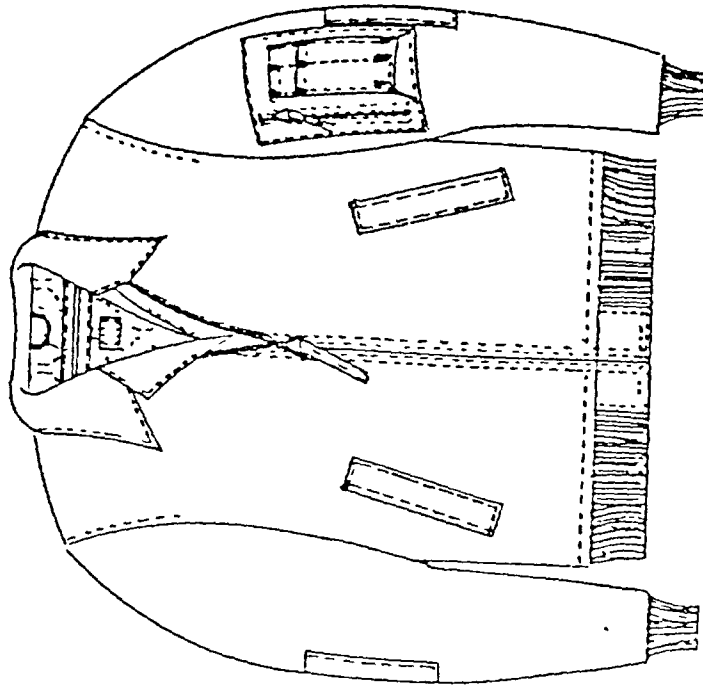
Review activities:

Army - MD  
Air Force - 11, 82  
DLA - CT

User activity:

Navy - MC

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*FIG. 1.-JACKET: COLD WEATHER  
(HIGH TEMPERATURE RESISTANT)*

U.S. GPO: 1964 O-288-2

# 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.

<b>I RECOMMEND A CHANGE:</b>		<b>1 DOCUMENT NUMBER</b> MIL-J-43924E	<b>2 DOCUMENT DATE (YYMMDD)</b> 1991 September 30
<b>3 DOCUMENT TITLE</b> JACKETS, COLD WEATHER, (HIGH TEMPERATURE RESISTANT)			
<b>4 NATURE OF CHANGE</b> (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)			
<b>5. REASON FOR RECOMMENDATION</b>			
<b>6. SUBMITTER</b>			
<b>a. NAME (Last, First, Middle Initial)</b>		<b>b. ORGANIZATION</b>	
<b>c. ADDRESS (include Zip Code)</b>		<b>d. TELEPHONE (include Area Code)</b> (1) Commercial (2) AUTOVON (if applicable)	<b>7. DATE SUBMITTED (YYMMDD)</b>
<b>8. PREPARING ACTIVITY</b>			
<b>a. NAME</b> U.S. Army Natick RD&E Center		<b>b. TELEPHONE (include Area Code)</b> (1) Commercial 508-651-4532 (2) AUTOVON/DSN 256-4532	
<b>c. ADDRESS (include Zip Code)</b> Commander, U.S. Army Natick RD&E Center ATTN: STRNC-IRT Natick, MA 01760-5019		<b>IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT</b> Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041 3466 Telephone (703) 756-2340 AUTOVON 289-2340	