INCH POUND

MIL-C-31006
18 February 1994

MILITARY SPECIFICATION

COAT, MAN'S

This specification is approved for use by all departments and agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers the requirements for a service coat worn by male personnel of the US Air Force.

1.2 Classification. The coat shall be of the following type as specified (see 6.2):

Polyester/Wool Serge, AF Blue 1620

1.2.1 Lengths and sizes. The coats shall be furnished in the following lengths and sizes as specified (see 6.2):

Schedule of sizes (chest)

X-Short	Short	Regular	Long	X-Long
	32	32	32	
34	34	34	34	34
36	36	36	36	36
38	38	38	38	38
40	40	40	40	40

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Defense Personnel Support Center, Clothing and Textiles Directorate, Attn: DPSC-FSSD, 2800 South 20th Street, Philadelphia, PA 19101-8419, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A FSC 8405

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

Schedule of sizes (chest)

X-Short	Short	Regular	Long	X-Long
42	42	42	42	42
	44	44	44	44
	46	46	46	46
	48	48	48	
	50	50	50	

2. APPLICABLE DOCUMENTS

2.1 Government documents

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

SPECIFICATIONS

FEDERAL

A-A-50198	-	Thread, Gimp, Cotton, Buttonhole
A-A-50199	-	Thread, Polyester Core; Cotton, or Polyester Covered
A-A-52071		Tape, Textile; Cotton, General Purpose
A-A-52094		Thread, Cotton
A-A-52106		Cloth, Twill or Plain Weave, Polyester and Polyester Blend
C-F-206	-	Felt Sheet, Cloth, Felt, Wool, Pressed
V-B-871	-	Button, Sewing Hole, and Button Staple (Plastic)
V-T-285	-	Thread, Polyester, Batting
V-T-295	-	Thread, Nylon
DDD-L-20	-	Label For Clothing, Equipage, and Tentage (General Use)

MILITARY

MIL-C-297	-	Cloth, Interlining, Cotton or Synthetic Warp
MIL-C-368	-	Cloth, Satin, Rayon and Cloth, Twill, Rayon
MIL-B-371	-	Braid, Textile, Tubular
MIL-C-823	-	Cloth, Serge; Wool, Wool and Nylon, Polyester and Wool

MIL-B-3461	-	Button, Insignia, Metal, Uniform and Cap
MIL-P-15064	-	Pads, Shoulder and Sleeve-Head
MIL-C-15065	-	Coat Fronts
MIL-C-29137	-	Cloth, Felt Fabric Composite, Undercollar
MIL-C-44192	-	Container, Shipping and Storage, Coat (Hanger Pack)
MIL-C-44296	-	Cloth, Fusibles
MIL-I-45208	-	Inspection System Requirements

STANDARDS

FEDERAL

FED-STD-191	-	Textile Test Methods
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-1490	-	Provisions for Evaluating Quality of Coats, Man's, Dress

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

2.1.2 Other Government documents. The following other Government documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation

Federal Acquisition Regulation (FAR 52.209)

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

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 shall be those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN SOCIETY FOR TESTING AND MATERIALS

D 3951 - Standard Practice for Commercial Packaging

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

THE COLOR ASSOCIATION OF THE UNITED STATES

Department of Defense Standard Shades For Sewing Threads

Department of Defense Standard Shades For Buttons

(Applications for copies should be addressed to the Color Association of the United States, 409 W 44th St., New York, NY 10016-0927. If color cards are not available from the Color Association, individual color samples may be obtained from the contracting activity or as directed by the contracting activity.)

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

3.2 Material. The use of recycled material when practical is encouraged as long as it meets the requirements of this specification.

3.2.1 Basic material. The basic material shall be a 9.5 - 10.5 ounce blend of 55 percent polyester and 45 percent worsted wool serge cloth, Air Force Blue Shade No. 1620, conforming to MIL-C-823, type III, class 4.

3.2.2 Lining. The material for lining the fronts, sleeves, back, and facings for the inside left and right breast pockets shall be a rayon lining, 3.7 ounces per square yard, conforming to class 1 of MIL-C-368. The color shall match Blue 1086. As an alternate, 100% polyester material is permitted conforming to A-A-52106.

3.2.3 Buttons, uniform. The buttons shall be 36-line, short-shank back, conforming to type I, style 1 of MIL-B-3461. The stay buttons shall conform to V-B-871, 18 line, color black, type II, class D, style 15, except with two holes.

3.2.4 Fusible interlining

3.2.4.1 Small parts fusible interlining. The lapel (front facing), back, side body, top sleeve, under-sleeve, top collar, pocket flap and chest welt, known as "small parts," shall use a black or charcoal, nonwoven fusible interlining. It shall conform to either type V or VI, class 1, styles A or B, or type VIII, class 1, style A of MIL-C-44296. The material shall have a uniformly distributed powder-dot, paste-dot, spun-fused or sintered nylon polyamide fusible adhesive evenly applied to one side in accordance with good commercial practice. Any given coat shall incorporate the same small parts fusible material. As an alternate, a black or charcoal, woven, lightweight fusible interlining for small parts, conforming to type I, class 1, style A of MIL-C-44296 may be used.

3.2.4.2 Fronts fusible interlining. The fusible interlining for the coat fronts shall be a black or charcoal, napped, woven, twill material conforming to type II, class 1, style B of MIL-C-44296. The material shall have a uniformly distributed, dot-type nylon polyamide fusible adhesive evenly applied to one side in accordance with good commercial practice. Any given coat shall incorporate the same fronts fusible material.

3.3.4.3 Fused state bonding strength. The small parts and fronts fusible material for preproduction and in-process testing shall meet an initial minimum bonding strength requirement in the warp (machine) direction of 32 ounces per inch or splits prior to dry-cleaning when tested as specified in Table I, and a minimum of 24 ounces per inch or splits in the warp (machine) direction after three dry-cleanings and pressings when tested as specified in 4.4.3.1. Additionally, the small parts fusible interlining will be accepted if it either begins or debonds from the outer shell material, equivalent to the minimum bond strength or higher, and then splits from itself; or if the small parts readily splits from itself at a minimum tear strength or higher, and then splits from itself; or if the small parts interlining readily splits from itself at a minimum tear strength of 6.0 ounces (170 grams) per inch.

3.2.4.4 Colorfastness. All dyed finished fusible interlining materials shall show colorfastness to dry-cleaning as specified in MIL-C-44296. When no standard sample is available, the finished fusible materials shall show "good" colorfastness to dry-cleaning.

3.2.4.5 Shrinkage. The interlining, after fusing to the basic cloth as specified in 3.2.4.6, shall not exceed 1.5 percent differential shrinkage, when tested as specified in 4.4.3.1. Additionally, the interlining, after fusing to the basic cloth as specified in 3.2.4.6, shall not exceed 2.0 percent shrinkage after dry-cleaning, when tested as required in 4.4.3.1. All dry-cleaned materials shall not exhibit any sign of bubbling, puckering or delamination.

3.2.4.6 Fusing press operating procedures and conditions. A single layer of fusible interlining shall be fused to a single layer of basic material on a dry, electrically-heated, conveyor-type fusing press which has the capacity of controlling and retaining pressure, dwell time, and temperature for a minimum of 8 hours. Pair or sandwich fusing which can create differential shrinkage, stitching, and uneven bonding shall not be permitted. A steam-sourced fusing press shall not be allowed for any initial fusing operations. For optimum results, the fusible material manufacturer's recommendations for fusing dwell time, pressure, and temperature, based upon the fusing equipment used and the basic material being fused, shall be utilized. Common fusing press settings shall be established in order to fuse both the small parts and fronts fusibles together. Basic preproduction and production maintenance procedures, including a fusing press information chart, shall be required to ensure proper fusing press performance relative to temperature control evenness in the pressure head or roller contact, dwell time, and cleanliness. Results of fusing press maintenance shall be recorded on Figure 1. Results of production maintenance procedures shall be recorded on Figure 2.

3.2.5 Pocketing cloth. The material for the inside breast pockets shall be polyester and cotton, or polyester and rayon matching the shade of the basic fabric or dyed black, and shall conform to class 2 of A-A-52106, except that the nonfibrous material content and colorfastness requirements for perspiration and crocking shall not apply.

3.2.6 Undercollar material. The material for the undercollar shall be a wool-blend, felt-fabric composite, USAF Blue, Shade No. 1598, conforming to MIL-C-29137.

3.2.7 Floating chest piece. The floating chest piece for the coat shall conform to type XVIII of MIL-C-15065 (hair cloth); type III, class 2 of MIL-C-297; and type III, class 11A2 of C-F-206 (Felt).

3.2.8 Labels. Each coat shall have a combination size-identification label, a size label, and an instruction label. All labels shall conform to DDD-L-20 and shall show "good" fastness to drycleaning.

3.2.8.1 Combination size and identification label. The combination label shall conform to type VI, classes 1 and 2 combined.

3.2.8.2 Size label. The size label shall conform to type VI, class 2.

3.2.8.3 Instruction label. The instruction label shall conform to type VI, class 3. The letters for the caption shall be not less than 3/16 inch in height and all other letters shall be not less than 1/8 inch in height. The contents of the label shall be as follows:

COATS, MAN'S, AIR FORCE BLUE

1. Dry clean only, low moisture.
2. Remove wrinkles or gloss with a steam iron or with a hot iron using a damp press cloth.
3. Roll press sleeves and lapels.
4. Utility press only.

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

3.2.9 Shoulder pads. The shoulder pads shall conform to type I, class 1 of MIL-P-15064.

3.2.10 Sleeve-head pads. The sleeve-head pads shall conform to type IV of MIL-P-15064, and shall be 15 inches long.

3.2.11 Stay tapes. The tapes for staying the armhole and bridle shall be cotton, conforming to type I, class 1 or 2 of A-A-52071, except that the nonfibrous material content shall not apply. The color shall be natural, bleached, or black. The tape for the bridle shall be 1/2 inch wide. The tape for staying the armhole shall be 1/4 inch wide. The tape for staying the back neckline shall be cross-cut made from natural or dyed black polyester blend cloth conforming to class 1 of A-A-52106. The raw edges of the tape shall be treated with a synthetic resin to prevent raveling. The tape for the neckline shall be 1/2 inch wide.

3.2.11.1 Fusible bridle tape. The fusible bridle tape shall be straight-cut, dyed black or charcoal, conforming to MIL-C-44296, type V, class 2, style A or B, with a width of 3/4 (± 1/32) inch. The 3/4-inch edges shall be sewn using a LSa-1 seam, 304 stitch, at 12 to 16 stitches per inch, and a 70/2 thread conforming to A-A-50199.

All sewn edges shall be within the fusible dot area such that the adhesive will not exhibit any stitch breaks or blank area on either side of the stitching. As an alternate, nonfusible tape, as specified in 3.2.11, may be used on the bridle.

3.2.12 Braid

3.2.12.1 Hanger braid. The braid for the coat hanger shall be cotton or rayon, tubular braid, flat, 1/8 to 3/16 inch wide, black in color, conforming to type IX, class 1 of MIL-B-371.

3.2.13 Thread

3.2.13.1 Thread, polyester core; cotton-, or polyester-covered. The cotton or polyester-covered, polyester core thread shall conform to A-A-50199. For seaming and stitching of the coat, Tickets No. 50 and 70, 2-ply shall be used. For button sewing, Ticket No. 30, 2 or 3 ply shall be used. The color of the threads shall be as indicated in 3.2.13.4. As an alternate, a cotton thread in accordance to A-A-52094 may be used.

3.2.13.2 Thread, nylon. The nylon thread used for the stitching of the buttonholes and bartacks shall conform to type I, size B, class A of V-T-295, and the color shall be as indicated in 3.2.13.4.

3.3.13.3 Thread, basting. The thread for basting shall be a good commercial grade, bleached or unbleached cotton conforming to type I or II of A-A-52094. As an alternate, polyester, size A, type I, class 1 of V-T-285 may be used (see 6.10).

3.2.13.4 Color. The color of the polyester core or nylon threads shall be DoD Thread Shade Navy Blue AT, Cable No. 66060, and the thread for tacking the armholes and attaching the sleeve-head and pads shall be white or unbleached.

3.2.13.4.1 Colorfastness. All dyed thread shall show colorfastess to light and wet/dry-cleaning, equal to or better than the standard sample. When no standard sample is available, the dyed thread shall show "good" colorfastness to light and wet-dry-cleaning.

3.2.13.5 Automatic button sewing. If an automatic machine, which sews and sets the stay button with the buttons in one operation is used, the thread shall be polyester core: cotton- or polyester-covered, 30/2 or 3, having a minimum breaking strength of 4.5 pounds and a minimum length per unit weight of 6501 yards per pound. The thread shall be tested for these requirements and colorfastness (see 3.2.13.4.1) in accordance with the test methods specified in A-A-50199.

3.2.13.6 Gimp. The gimp for reinforcing the buttonholes shall be cotton, size No. 8, conforming to type I or II of A-A-50198.

3.2.13.6.1 Color and colorfastness. The color of the gimp thread shall be DoD Shade Navy Blue AT, Cable No. 66060. The dyed gimp shall show colorfastness to wet dry-cleaning, equal to or better than the standard sample. When no standard sample is available, the dyed gimp shall show "good" colorfastness to wet dry-cleaning.

3.3 Design. The design shall be a single-breasted, semi-fitted and fully-lined coat with a three-button closure. The coat shall have two inside breast pockets and one simulated welt pocket on the upper left side of the chest. There shall be two lower simulated double-piped pockets with flaps inserted in the piping. All outside pockets are non-functional. The coat shall have a back vent. The coat is intended to be worn buttoned at all times and must present a professional appearance. Figures 3 and 4 show the front and back views of the coat, respectively.

3.4 Patterns. Standard patterns to be used for cutting the contractor's working patterns will be furnished by the Government. The working patterns shall be identical to the standard patterns and shall not be altered in any way. The patterns provide seam allowance as follows:

3/16	inch -	For lapel and front edge seams (edge cut)
5/16	inch -	For darts
3/8	inch -	For all other seams and lining seams, unless otherwise indicated
5/8	inch -	For side and back center seams
2-1/4	inch -	For the coat sleeve bottom turn up
1-3/4	inch -	For the lining sleeve bottom turn up
1-1/4	inch -	For bottom hem turn up
2-1/4	inch -	For lining bottom hem turn up

3.4.1 List of pattern parts. The component parts of the coat shall be cut from materials as specified according to the pattern parts indicated:

TABLE I. Pattern parts

Material	Pattern Nomenclature	Cut Parts
Basic material		
	Front	2
	Side body	2
	Back	2

TABLE I. Pattern parts (continued)

Material	Pattern Nomenclature	Cut Parts
Basic material (continued)		
	Front facing	2
	Top collar (block)	1
	Top sleeve	2
	Under sleeve	2
	Breast pocket welt (block)	1
	Lower flap (block)	2
	Lower pocket piping	4 each
Cloth, rayon, lining		
	Front	2
	Side body	2
	Back right	1
	Back left	1
	Top sleeve	2
	Under sleeve	2
	Breast pocket piping	4
Cloth, polyester blend, for pockets		
	Inside breast pocket	1
Fusible interlining cloth		
Woven type fusible		
	Fronts	2
Non-woven fusible		
	Lapel	2
	Breast pocket welt	1
	Lower flap (block)	2
	Top sleeve piece	2
	Under sleeve piece	2
	Top collar	1
	Side body (block)	2
	Back vent	2

Material	Pattern Nomenclature	Cut Parts
Cloth, wool, composite material		
	Undercollar (block)	1
Shapers/Markers		
	Breast pocket welt	3
	Lower pocket flap	3
	Upper lapel/Working shaper	1
	Lower lapel/Working shaper	1
	Top collar	6
	Under collar	6
	Side body fusible	2
	Buttonhole/Button	1
	Breast pocket	1
	Finished lapel	
	Finished flaps and welts	

3.5 Construction

3.5.1 Stitches, seams and stitching. Stitch, seam, and stitching types, and stitches per inch specified in Table II 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.

3.5.1.1 Type 301 and 306 stitching. The ends of all stitching shall be back-stitched or over-stitched not less than 1/4 inch, except where the ends are caught in other seams or stitching. The ends of a continuous line of stitching (except the label) shall be overlapped not less than 1/2 inch. The ends of the label stitching shall be overlapped not less than three stitches. Thread tensions shall be maintained so that there will be no loose stitching, resulting in loose bobbin or needle 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 and 306 stitching. Repairs of type 301 and 306 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 at a minimum of 1/2 inch in back of the end of the stitching. 1/

b. Thread breaks or two or more consecutively skipped or run-off stitches noted during item inspection shall be repaired by over-stitching. The stitching shall start at a minimum of 1/2 inch in back of the defective area and continue at 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. The loose ends shall be trimmed by scissors. Caution: pulling or breaking the loose ends is not allowed.

3.5.1.2 Types 401, 502, 503, and 504 stitching. Thread tension shall be maintained so that there will be no loose stitching. Where a 401 stitch type is used, the looper (underthread) shall be on the inside. All repairs shall be in accordance with 3.5.1.1.1a and b, except substitute 3/4 inch for 1/2 inch wherever 1/2 inch appears. Repairs to stitch type 401 may be accomplished by use of stitch type 301.

3.5.1.3 Type 101 and 103 stitching. Tension of 101 stitch tacking shall be adjusted and maintained so that there will be no loose stitching resulting in either loose bottom or top thread, excessively tight stitching, or a puckering outward appearance of the coats.

3.5.1.3.1 Repairs 101 and 103 stitching. Repairs shall be accomplished by superimposing new tack or blind-stitching in the same location after removing threads of the first broken tack or blind-stitching.

3.5.2 Buttonholes. The buttonholes shall be eyelet-end, square-bar, cut-first type, reinforced with gimp. The purl of the buttonhole shall be on the outside of the coat. The ends of the buttonhole stitching shall be tacked by machine, with the width of the bar section catching the ends of the buttonhole stitching in the gimp. The finished size of the buttonhole cut shall be as specified in Table II.

3.5.3 Bartacks. Bartacks shall measure 3/16 inch long, and be free from thread breaks and loose stitching.

3.5.4 Vent and chest welt stitching. All vent and chest welt stitching shall be done with either polyester core: cotton- or polyester-covered, or nylon thread as specified in Table II.

3.5.5 Marking. The component parts of the coat shall be marked to ensure a uniform shade and size throughout the garment. Any method of marking may be used except:

a. Corrosive metal fastening devices. No metal device or sew-on type markings shall be used on the rayon lining.

b. Adhesive-type tickets. No tickets shall be used which discolor the material or leave traces of paper or adhesive on the material after removal of the tickets.

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

3.6.1 Pressing. Pressing, specified in Table II, shall be performed by use of a heated pressing iron or machine, as commercially used for dress coats.

3.6.2 Figures. The figures are furnished for information purposes only. When inconsistencies exist between the written specification and the figures, the written specification shall govern.

3.6.3 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 template is forwarded, the component shall conform to that template.

3.6.4 Abbreviations in Table of Operations. The abbreviations used in Table II are as follows:

Stch	-	Stitch
In	-	Inch
Ndl	-	Needle
Bob	-	Bobbin
Lpr	-	Looper
Mchne	-	Machine
Brtck	-	Bartack
Comrcl	-	Commercial
Smlr	-	Similar
Btn	-	Button
Btnhl	-	Buttonhole
Incl	-	Including
Dbl	-	Double

TABLE II - CONSTRUCTION OF COAT

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
1.	Cut the basic material. a. Spread the material without tension in a suitable number of plies for the applicable fabric. The cut parts in the top ply and in the bottom ply will match the patterns. b. Lay the material in uniform widths and lengths. The plies shall not be stretched, pulled nor full, and one side of the lay shall be even. c. Cut the coat parts in strict accordance with patterns which show directional lines, size, shape, placement of pockets, flaps, welt pockets, and notches for proper assembling of all parts. Upper welt pocket facing shall be cut from outer-shell material. The use of drill holes for pocket darts and flap locations is prohibited. d. Cut all the parts of the garment out of one piece of material. Cut the front darts as indicated on the pattern. Cut the piping pieces in the warp direction. e. The left front and front facing shall be trimmed in the front shaping operation.				

TABLE II - CONSTRUCTION OF COAT (Continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
2.	Cut the lining. a. Cut the lining for the body of the coat, sleeves, back, and inside breast pocket facings in the direction of the warp, and in strict accordance with the patterns furnished. b. When sleeve linings are cut from the ends, the parts shall approximately match the shade of the body lining, and the sleeves shall match each other.				
3.	Cut the trimmings. a. Cut fusible interlinings in the same direction as the parts to be fused. b. Cut the pocketing cloth for the inside breast pockets in the direction of the warp. c. The felt fabric composite undercollar cloth shall be die-cut as indicated by the directional lines on the patterns.				

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
4.	Replacement of the damaged parts. Care shall be exercised during the spreading, cutting, and manufacturing operations to assure that material defects and damages, as classified in MIL-STD-1490, are excluded and replaced with non-defective and properly matched material.				
5.	Shade markings a. All components parts of the basic material and linings, including the sleeve linings, whether cut from the ends or in the main lay, shall be marked or ticketed to ensure a uniform shade throughout the coat. Other parts cut from the ends need not be shade-marked. Any method may be used, except as indicated in 3.5.5. b. Identify the test swatches (basic material and fusible interlining) that represent every 1000 coat units of production (see 4.4.3.1).				

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
6.	Fusing (see 3.2.4 through 3.2.4.6). a. Fuse the side body front armhole interlining with the armhole edge set back 1/8 inch and 3/8 inch from the edge of the side body to front joining seam. Fuse the back vent top and bottom. b. Fuse the small parts fusible interlining piece to the top and undersleeve, with the bottom edge of the fusible interlining 1/8 inch from the bottom edge of the sleeves, and center. c. Fuse the small parts fusible to the top collar. Position the top collar interlining, and center it on the top collar with 3/16 inch from all edges, as indicated on the pattern. d. Fuse the small parts fusible to the flaps and top welt aligned with the corresponding notches on the basic material. e. Fuse the small parts fusible to the left and right facings with the top of the fusible interlining 1/8 inch from the top of the shell.				

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
6.	Fusing (see 3.2.4 through 3.2.4.6). (continued)					
	f. Fuse the small parts and fronts fusible test swatches.					
	NOTE: Fused lots and test swatches shall be allowed to cool to the touch prior to bundle typing or testing.					
7.	Die cut small parts to final size after fusing.					
	a. Pocket flaps					
	b. Top collar					
	c. Chest welt (option - may or may not be fused, see operation 11.c.).					
8.	Attach armhole tape to the back panels.					
	Sew a 1/4-inch tape from 1/2 inch below the shoulder seam down beyond the side seam, approximately 1/8 inch from the edge along the armhole seam allowance.	301 or 401 401	SSaa-1 SSaa-1 SSaa-1	10-14 10-14	50 50	50 70

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
9.	Make darts and join the side bodies to the fronts. Finished appearance: The fronts/side bodies shall be uniformly stitched, and shall finish smooth and flat, without twists, gathers, puckers, or pleats.					
	a. Seam the vertical cut dart of the fronts with a 5/16-inch seam allowance.	301	SSa-1	10-14	50	50
	b. Join the side bodies to fronts, matching the notches with a 3/8-inch seam. Press the seam open and flat.	301	SSa-1	10-14	50	50
	c. Press the dart seams and side body seams open and flat, holding the front waist dart short and the front of the coat straight. NOTE: The dart is not cut open all the way to the top. Approximately 1 inch is left closed.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
10.	Attach the armhole tape to the front panels.					
	a. Sew a 1/4-inch tape from the side body to the second notch approximately 1/8 inch from the edge along the armhole seam allowance.	301 or 401	SSaa-1	10-14	50	50 or 70
	b. Sew a 1/2-inch cross-cut tape from the second notch up to 1/2 inch from the shoulder seam approximately 1/8 inch from the edge along the armhole seam allowance.	301 or 401	SSaa-1	10-14	50	50 or 70
11.	Make the breast welt and lower pocket flats. Finished appearance: The breast welt and pocket flaps shall be uniformly stitched, shall finish smooth and flat without twists, gathers, puckers, pleats, or raw edges, and shall be uniform in shape and size in accordance with the finished size chart (see operations 17 and 18). The seamed edges and corners of the flaps shall be well worked out and the seams shall not be visible on the outside of the flaps.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
11.	Make the breast welt and lower pocket flaps. (continued)					
	a. Seam the flap front and back edges with a 3/16-inch to 1/4-inch edge cut. It is not necessary to notch.	301	SSa-1	10-14	50	50
	b. Turn and work out the edges, points, and corners. The seams shall not show on the outside of the flaps.					
	c. Make the top welt on an automatic cam-driven or programmable machine, or stitch and turn the welt before attaching.	301	SSa-1	10-14	50	50
	d. Press the breast pocket welt and lower pocket flaps smooth and flat.					
12.	Make the collar.					
	Finished appearance: The collar shall be uniform in appearance, and the edges shall be smooth and flat without twisting, gathers, puckers, or raw edges (top and sides). The composite undercollar shall be one piece.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
12.	Make the collar. (continued)					
	a. The undercollar must be die-cut to conform to the pattern template.					
	b. Sew the stitch line to undercollar at the breakline, using guide notches on the undercollar. The collarstand shall be 1-1/4 (± 1/8) inches at the center.	301	SSa-1	10-14	50	50
	c. Machine-fell the top of the top collar to the finished undercollar with a simulated hand-felling. Sew the side edges to the undercollar using 301 stitch.	Mchne	-----	6-10	50	70
		301	SSa-1	10-14	50	70
	d. Trim and turn the collar.					
	e. Edge-baste the top collar to the undercollar along the outer edge. Press the collar flat.	101	-----	2-4	70	--
	f. Trim the bottom (neck) edge of the top collar even with the undercollar from the gorge edge to the breakline notch, and tapering out to a 1/4-inch seam allowance at the center back notch.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
13.	Make the sleeves. Finished appearance: The sleeves shall be uniform in width. The seams shall be pressed smooth and flat without gathers, puckers, pleats, or raw edges.					
	a. Join the forearm seam of the sleeve, distributing the fullness between the notches.	301	SSa-1	10-14	50	50
		or				
		401	SSa-1	10-14	50	70
	b. Press the forearm seam open and flat. Do not hold taut.					
	c. Press the turn-up bottom of the sleeve as indicated by the notches on the pattern.					
	d. Join the backarm seam of the sleeves.	301	SSa-1	10-14	50	50
		or				
		401	SSa-1	10-14	50	70
	e. Press the backarm seam open and flat.					
	f. Baste turn-up of the sleeves.	101	SSn-1	1-2	Comrcl	
		or				
		103	SSn-1	1-2	Comrcl	
		or				
		306	SSn-1	1-2	Comrcl	

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
13.	Make the sleeves. (continued) g. Join the backarm seam and the forearm seam of the sleeve lining. The distance between the notches on the forearm sleeves shall be left open.					
	h. Using a sleeve lining felling machine, position the sleeve lining top notches to the top of the forearm sleeve seam and the top of the backarm sleeve hem. Tack the forearm seam and backarm seam, respectively. The backarm seam tacking shall extend from approximately the mid-point of the back arm seam to not more than 4 inches above the creased bottom edge. The forearm seam tacking shall be 2 inches below the bottom left open forearm seam notch.	401	SSa-1	10-14	50	70
	i. Pull the sleeve-through lining and baste the turn-up of the sleeve lining. The sleeve lining shall have not less than 1-1/4 inches turn-up.	101	-----	2-4	Com-crl	--
	j. Turn the sleeves and assemble in pairs.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
13.	Make the sleeves. (continued) NOTE: Sleeve may be rolled-pressed prior to hanging to facilitate check-on balance of the sleeve setting operation.					
14.	Make the front lining. Finished appearance: The lining shall finish without pleats or puckers. The pockets shall be positioned as indicated on the patterns and of the correct size.					
	a. Join the lining side body fronts to the lining fronts.	301 or	SSa-1	10-14	50	50
		401	SSa-1	10-14	50	70
	b. Seam the front lining to the facings, easing fullness to make a pleat at the shoulder and to match the notches provided.					
15.	Make two inside breast pockets and attach combination size-identification and instruction label. a. Pocket openings shall be made with a double-piped pocket machine which stitches, cuts, and turns stitched-piped edges in one operation.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
15.	Make two inside breast pockets and attach combination size-identification and instruction label. (continued) The lining for the piping may be trimmed to permit insertion into the machine. The joining seam of the top- and bottom-piped edges shall be raise-stitched through the lining and coat facing prior to pocket closing, and top-edge stitched through all the plies. (If the lockstitch-type machine is used, the top-edge stitch may be omitted.) Tack ends of the pocket opening. NOTE: When this machine is used, the contractor may utilize the machine manufacturer's recommended piping reinforcement material in addition to the pocketing cloth.					
	b. Seam the instruction label to the right pocket on all four sides, to the lining through one ply of cloth pocketing, positioned with the top edge 1/8 to 1/4 inch below joining seam of lower inside pocket piping at the center of the pocket opening.	301 or 401	SSau-1 SSau-1	10-14 10-14	50 50	50 70

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
15.	Make two inside breast pockets and attach combination size-identification and instruction label. (continued)					
	c. Sew one ply of the pocketing approximately five inches down from the top along the seam that joins the facing and lining seam.	301	SSa-1	10-14	50	50
	d. Turn the pockets into position, and stitch the sides and bottom edge of the pocket, catching the pocket stay at the front edge of the pocket from the top for the length of the stay. The finished pockets shall measure not less than 5-1/2 inches (+ 1/4 - 0) in depth for all sizes.	301	SSa-1	10-14	50	50
16.	Make the backs and attach the size label. Finished appearance: The backs shall be joined without gathers, puckers, or pleats. The right vent and left vent shall finish smooth and flat, without puckers, gathers or pleats.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
16.	Make the backs and attach the size label. (continued)					
	a. Join the center back with a 5/8-inch seam, with the stitching stopping approximately 3-1/8 inch below step. Continue horizontally across the vent stop to 1/2 inch before the edge.	301	SSa-1	10-14	50	50
		or				
		401	SSa-1	10-14	50	70
	b. Slash the right seam allowance at the top of the vent and press the back seam open. Fold the back left vent in line with the center seam and the bottom notch, and press the left vent.					
	c. Position the 1/2-inch cross-cut tape 1/8 inch from the neckline edge of the joined backs, and stitch along the tape.	301	SSa-1	10-14	50	50
	d. Join the center back lining beginning at the top notch, sew down approximately 1 inch, then sew across to within 3/8 inch of the edge, turn, and continue down the back lining, stopping at the vent notch.	301	SSa-1	10-14	50	50
		or				
		401	SSa-1	10-14	50	70
	e. Vent					
	(1) With the vent notches of the shell and lining even, sew	301	SSd-1	10-14	50	50

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
16.	Make the backs and attach the size label. (continued)					
	down the length of the vent (starting at the top of the vent), turning up the lining at the first notch and the bottom turn-up at the second notch, then continue sewing to the bottom.					
	(2) Turn the vent edge, and edge-stitch with the lining not showing on the outside of the coat.	301	SSe-1	10-14	50	50
	(3) Starting at the lining seam at the top of the vent, sew the right side of the vent lining down the full length of the shell fabric.	301	SSe-1	10-14	50	50
	(4) Tack the top of the vent through all plies of material, except the lining. The outside track shall be diagonal and start at the base of, and on the center seam, and shall not be less than 1 inch or more than 1-1/4 inches long.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
16.	Make the backs and attach the size label. (continued)					
	f. Sew on the hanger and the size label to the center of the back at the collar seam, with the stitching through all the plies. The label shall be plainly visible. The hanger shall measure, finished, 2 (± 1/2) inches in length. NOTE: The bar code label/tag shall be adjacent to or through the top buttonhole of the left front.	301	SSak-1	10-14	50	50
17.	Make the fronts. Finished appearance: All the darts and flaps shall be positioned and finished without pleats or gathers. a. Mark the fronts for position of breast welt and lower flaps as indicated by the pattern. b. Mark the width of the welt from foldline in accordance with the finished measurements.					
	c. Stitch the welt to the front through all the plies, as indicated by the marks on the pattern,	301	SSa-1	10-14	50	50

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
17.	Make the fronts. (continued) catching the pocket stay on the underside. As an alternate, the top ply of the welt may be stitched to the front. d. The ends of the welt seam allowance may be clipped. e. Stitch pocket facing to front with stitching approximately 1/2 inch from the seam joining top ply of welt to front. f. Cut opening of pocket between two rows of stitching and tongue notch ends. g. Turn welt and stitch corners 1/16 inch from edge along edges and 1/4 inch across top from the corners. Stitch inside across bottom of welt to render it inoperable. The finished length of the top welt shall be as follows: Sizes 32-40 4-1/4 inches Sizes 42-50 4-1/2 inches Tolerance is -1/8, +0 inch.	301	SSc-1	10-14	50	50

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	BOB/ LPR
18.	Make the two lower pockets. a. Use a double-piped pocket machine which stitches, cuts, and turns the stitched-piped edges in one operation. The finished length of the pocket flap in the welt shall be as follows: Sizes 32-40 6-1/8 inches Sizes 42-50 6-1/2 inches Tolerance is -1/8, +0 inch.					
	b. Insert the flap into the welt machine so that the flap is an integral part of the welt attachment. The top edge of the welt shall be exposed across the top of the flap. Sew on the top and through the marked line as indicated on the pattern. Turn down the flap over pocket opening and sew the facing at all four sides to close the pocket and render it inoperable. NOTE: If a single thread, chain-stitch machine is used, a single needle lock-stitch is required to reinforce the piping before closing the pocket.	101 and 301	----- -----	10-14 10-14	50 50	-- 50

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
18.	Make the two lower pockets. (continued)				
	c. Trim the ends of the piping and pocketing material on the inside, if necessary.				
19.	Baste the floating chest piece to the fronts.				
	a. Position the floating chest piece, as indicated, by drill holes on the front fusible interlining.				
	b. Baste across the shoulder, allowing room for setting the shoulder pads. Baste around the armhole and down the back of the chest piece.	101	Hopper,	4-6	Com- -- rcl
		or			
		103	Flatbed,	4-6	Com- -- rcl
		or	or		
		306	Jump-baste	4-6	Com- -- rcl
	c. Position the bridle tape adjacent to and 1/8 inch behind the break-line of each lapel. Fuse the bridle tape so that the center of the bridle tape is placed on the edge of the chest piece. Finish the fusing behind the breakline at a point 1-1/2 inches from the bottom of the lapel (or front edge of the fore part).				

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
19.	Baste the floating chest piece to the fronts. (continued)					
	or					
	Baste the tape for the bridle, holding the tape taut, and position the tape with the fullness evenly distributed.	101 or	SSm-2	4-6	A	A
		301	SSm-2	4-6	A	A
		Hop-per or Hand				
	NOTE: The tape shall be adjacent to but behind the lapel breakline and shall extend from 1-1/2 inches from the shoulder seam to the button placket notch.					
	d. Blindstitch the bridle tape to the chest piece and front using one row of stitching along each side of the bridle.	103 or	Blind-stitch	4-6	70	--
		306	Blind-stitch	4-6	70	--
20.	Under-press the lapels and the fronts, and shape the lapels.					
	a. After the bridle tapes are fused, the left and right fronts of the coat shall be pressed individually on a left-and-right-coat chest pressing machine, respectively, to conform to the shape of the body.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	BOB/ LPR
20.	Under-press the lapels and the fronts, and shape the lapels. (continued) The front edge of the forepart shall be straight. b. Shape the lapels and the fronts of the coat. c. Shaping of the lapels, fronts, and the trimming of the front edge shall be performed with a clicker machine using dies conforming to the pattern templates. Fronts may not be hand-cut. NOTE: When using dies, the left front must be dressed after the front edges are shaped.					
21.	Join the side seams.					
	Join the side seams with a 5/8-inch seam. Press the seams open and flat on a buck-type press.	301 or 401	SSa-1 SSa-1	10-14 10-14	50 50	50 70
22.	Match and baste the facings.					
	Match and baste the facings to the coat (first basting), putting in the proper lapel and breast fullness. The facings shall be held slightly taut at the	101 or 103 or	Hopper, Flatbed, or	1-2 1-2	Com-rcl Com-rcl	-- --

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
22.	Match and baste the facings. (continued)					
	bottom edges of the fore-parts.	306	Jump-baste	1-2	Com-rcl	--
	NOTE: The stitches shall be no less than one stitch per inch to ensure that the breast fullness and the tautness at the bottom edges of the fore-part are maintained.					
23.	Sewing the lapels and the front edges.					
	a. Stitch 3/16 inch from the edge, along the lapel, then to the bottom of the coat, and to the back edge of the facing.	301 or 401	SSa-1	10-14	50	50
			SSa-1	10-14	50	70
	b. Press the edges flat and smooth, and pull the basting threads.					
24.	Baste the coat edges and the bottom turn-up.					
	Finished appearance: The edges, lapels, and corners shall be uniformly worked-out. The blind-stitching of the turn-up at the bottom shall not show through the outer side.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
24.	Baste the coat edges and the bottom turn-up. (continued) The fullness shall be uninformly placed at the lapel and front edge break to the point, when basting along the break-line and back edge. This is done so that the lapel will roll. The lower front edges shall close flat and smooth, without rolling outward.				
	a. Notch the corner of the lapel and the rim around the lapel and bottom corners of the fronts. Edge-baste the right and left fronts, using an edge-basting machine. Shape the lapel as required.	101 or 103 or 306	------ ----- -----	1-2 1-2 1-2	Com- -- rcl Com- -- rcl Com- -- rcl
	b. Turn up the bottom of the coat as indicated by the patterns, matching the lengths of the vent opening.				
	c. Baste-stitch the complete bottom turn-up of the coat.	101 or 103 or 306	SSn-1 SSn-1 SSn-1	1-2 1-2 1-2	Com- -- rcl Com- -- rcl Com- -- rcl

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
24.	Baste the coat edges and the bottom turn-up. (continued)				
	d. Baste the facings along the lapel front (second basting) 1 (± 1/2) inch from the edge, then along the fronts to a point in line with the top edge of the top welt. Hold the lower corner of the coat rolled so the lower front edge of the forepart rolls inward.	101 or 103 or 306	SSn-1	1-2	Com- -- rcl
	e. Baste along the break-line of the lapel, allowing fullness in the facing, in order to permit the lapel to roll.	101 or 103 or 306	-----	1-2	Com- -- rcl
	f. Baste the back edge of the facing, putting fullness over the chest.	101 or 103 or 306	-----	1-2	Com- -- rcl

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	BOB/ LPR
25.	Sew the shoulder pads.					
	Insert the shoulder pads between the plies of the chest piece (in pocket), and tack in position to the chest piece.	301	-----	2-4	Com-rcl	--
		or				
		401	-----	2-4	Com-rcl	--
26.	Tack the facings to the interlining.					
	Tack the back edge of the facings to the interlinings with one row of blind-stitching. The stitching shall start not more than 2-1/2 inches from the shoulder seam, stitching around the outer ply of the inside pocket stay, and the seam allowance of the facing, to within 2 inches from the bottom of the coat.	101	SSn-1	2-4	70	--
		or				
		103	SSn-1	2-4	70	--
		or				
		306	SSn-1	2-4	70	--
27.	Stitch the bottom of the coat.					
	Blind-stitch the turned-up bottom of the coat.	101	SSn-1	2-4	70	--
		or				
		103	SSn-1	2-4	70	--
		or				
		306	SSn-1	2-4	70	--

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
28.	Baste the lining.					
	a. Turn in the bottom and back edge of the lining and baste to the body of the coat. The basting is to allow room for felling. The raw edge of the lining at the bottom hem shall be covered.	101 or 103 or 306	SSn-1	2-4	70	--
	b. Trim the lining of the armholes and shoulders with the lining, extending 1/4 inch from the shoulder point at the neck, and 1/2 inch at the shoulder point at the armhole. Trim evenly at the lapel notch to a point, extending 1/8 inch from the gorge to settle evenly when the lapel is turned and creased. The lining at the armhole shall extend no less than 1/2 inch to allow for insertion of the sleeve head and shoulder pads.					
29.	Join the shoulder seam.					
	Finished appearance: The fullness on the back and at the shoulder seams shall be placed so that, when finished, the shoulder will attain the correct shape as indicated by the shoulder line on the front pattern.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
29.	Join the shoulder seam. (continued)					
	Join the shoulder seams of the coat, catching the front interlining in the seam and working in the fullness on the back.	301 or 401	SSa-1 SSa-1	10-14 10-14	50 50	50 70
30.	Press the shoulder seams.					
	Finished appearance: The shoulder seams shall finish flat and smooth, without distortion and curved, as indicated by the shoulder line on the front patterns.					
	Open and press the shoulder seam over a suitable block.					
31.	Baste the shoulder.					
	Baste the shoulder to the chest-piece and neckline, stabilizing the chest-piece at the top neck point. (first baste)	101 or 103 or 306	----- ----- -----	1-2 1-2 1-2	Com-rcl Com-rcl Com-rcl	-- -- --

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
32.	Join the shoulder linings.					
	Join the shoulder lining seams of the coat, working in the fullness on the back.	301	SSa-1	10-14	50	50
		or				
		401	SSa-1	10-14	50	70
33.	Baste the shoulder and the neckline.					
	Baste the facing and lining to the shell at the neckline. (second baste)	101	-----	1-2	Com-rcl	--
		or				
		103	-----	1-2	Com-rcl	--
		or				
		306	-----	1-2	Com-rcl	--
34.	Set the collar.					
	Finished appearance: The collar shall finish centered on the back seam with the fullness distributed over the shoulder to conform to and hug the neck.					
	a. Mark the outlet at the neck with a gorge shaper.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
34.	Set the collar. (continued)					
	b. Seam the top collar to the front facing at the gorge to a point not less than 1 inch in back of the lapel breakline. Notch the facing at the end of the joining seam.	301	SSa-1	10-14	50	50
	c. Spread open the seam, joining the top collar to the facing. Tack the seam allowance of the top collar to the front at the gorge from the lapel notch, and to the end of the seam, catching the bridle tape in the tacking.	301	SSa-1	10-14	50	50
	d. Base the under-collar to the coat, putting in fullness over the shoulder.	301	-----	10-14	50	50
	e. Fell the lower edge of the undercollar to the coat by machine. The raw edge of the undercollar shall be enclosing within the felling.	306	LSa-1	8-12	70	--
		or	Smlr to			
		301	SSbd-1	10-14	50	50

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
35.	Set-in sleeves. Finished appearance: The sleeves shall be set uniformly, with fullness at the front and back armhole, distributed without pleats or puckers.					
	Set the sleeves, matching the front sleeve notches with the front armhole notches, and the back arm seam with the back armhole notch. Distribute the fullness in the front and the back of the armhole evenly.	301 or 401	SSa-1 SSa-1	10-14 10-14	50 50	50 70
36.	Press the armhole seam. Finished appearance: The armhole seam-pressing shall not stretch or distort the armhole. Press the seam open across the top from 1 ± 1/4 inch above the back arm seam to not less than 3 or more than 4 inches forward of shoulder seam, or seam may be pressed closed, away from the sleeve.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	BOB/ LPR
37.	Fell the bottom lining to the coat bottom.					
	a. Fell the lining around the bottom of the coat to the coat shell, from facings to vent. The lining shall finish 1/2 inch from the bottom.	306	SSn-1	6-10	50	--
	b. Hand-tack the lining to close left-open spaces at the hem bottom, near facing corners.					
38.	Baste and tack the armholes.					
	a. Baste around the outside armholes, positioning the lining, back, and shoulder pad and back of shoulder in place. Put fullness of the back in place, or baste the back part of the armholes from the lining side. Baste the balance of the shoulder lining.	Hand or 301	----- -----	-- --	Com-rcl Com-rcl	--
	b. Sew all around the armhole by machine, trimming away any excess lining and interlining. Insert the sleeve head wadding to the top of the armhole sleeve. The sleeve head wadding shall be positioned with the folded edge adjacent to the edge of the armhole, backing the cloth side	Hand or 301	----- -----	4-6 4-6	Com-rcl Com-rcl	-- --

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
38.	Baste and tack the armholes. (continued)					
	against the sleeve, and in such a manner as to cause the wadding to fold on itself. The tacking shall be adjacent to the armhole sleeve.					
	c. Stitch the sleeve lining to the armhole on the inside from the front sleeve notch to the backarm seam across the undersleeve.	301	SSa-1	10-14	50	50
39.	Complete the sleeve felling.					
	a. Using the machine-duplicated, hand-type felling stitches, the stitches shall be over the folded edge of the sleeve lining. The felling is not to be accomplished by hand.	Mchne simu-lated hand fell-ing	-----	---	--	--
	b. The armhole lining shall be felled utilizing a sleeve lining felling machine that consists of a one-needle, two-thread, feed-off-the-arm machine, equipped with a lower and upper feed.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
39.	Complete the sleeve felling. (continued)					
	c. Stitch the top sleeve lining to the armhole on the inside from the front armhole notch to the top back arm lining seam, then across the crown of the top sleeve lining, using the machine-duplicated, hand-type felling stitches.	306	SSa-1	10-14	50	50
	d. Close the previous left-opened forearm seam 1/16 - 3/32 inch from the edge.	301	SSa-1	10-14	50	50
40.	Press the left front.					
	Press the left front prior to the buttonhole operation.					
41.	Clean the coat.					
	a. Remove all the basting threads.					
	b. Trim all the ends of the stitching and remove the loose threads from the coats.					
	c. Remove all spots, stains, and shade or size markings without damaging the material.					

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
42.	Mark and make the buttonholes. a. Mark the left front for three buttonholes using the buttonhole template provided for the placement of buttonholes. The spacing between each of the buttonholes shall be uniform.					
	b. Make three buttonholes in the left front, as marked, with the inside edge of the eyelet 3/4 inch from the finished edge of the coat. The cut length of the finished buttonhole after tacking shall measure not less than 1 inch and not more than 1-1/8 inches (see 3.6.2).	Btnhl mchne	-----	63-70 per 1 " btnhl	B Nylon	B Nylon
	c. Tack the ends of the buttonhole stitching and gimp by machine with a vertical bartack centered on both gimp ends of the buttonhole (see 3.6.3.). NOTE: Only a "cut-before" type buttonhole is permitted. The use of a "cut-after" type buttonhole is expressly prohibited.	Brtck	-----	21 per brtk	B nylon	B nylon

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
43.	Press the coat. Finished appearance: The coat shall be pressed smooth and flat, without any gloss or pressing impressions. The top of the sleeves shall be blocked and pressed having a rolled effect at the front and back. The left front bottom edge shall be even with the right, and shall roll inward below the bottom front button when buttoned on the model form. There shall not be any strike-through or strike-back of the fusing material on the finished coat. a. Place the coat on a hanger after the first pressing operation until completion of pressing. b. The shoulders shall be pressed on a left-and-right-shoulder pressing machine. c. Press the edges of the lapels, fronts, collars, and bottom of the coat on an edge-pressing machine. d. Press the right and left fronts on right-and-left-chest machines, respectively.				

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
43.	Press the coat. (continued) e. Press the balance of the fronts, side seams, and back on a body machine. f. Press the collar on a collar machine, stretching the outer edge of the collar over the shoulder area when required. The pressed crease at the break-line of the lapel shall extend 2 to 2-1/2 inches below the gorge seam. The lapel and gorge shall be checked with the finished lapel template for the proper width. g. Press the armhole and the shoulders on an armhole machine. h. Press the armhole solid from the inside, creasing the armhole not less than 1/2 inch above the back arm seam to not less than 4 inches from the shoulder seam. The armpit and the back of the armhole shall be held short and pressed flat. i. Roll-press the sleeves and the lapels, starting 2 to 2-1/2 inches below the gorge seam. Do not crease.				

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
44.	Finish pressing. a. Press the coat lining smooth. b. Remove gloss, wrinkles, creases, spots, and all pressing impressions. c. Block the armhole and shrink the top sleeve. d. Brush the coat and examine. e. Press any wrinkles missed or caused by previous pressing operations.				
45.	Mark the coat for buttons. Mark the location of the three buttons on the right front of the coat, as indicated by the patterns, to correspond with the buttonholes on the left front using the button placement template. The buttons shall be sewn 1-5/8 to 1-7/8 inches from the front edge. The buttons shall be in vertical alignment.				

TABLE II - CONSTRUCTION OF COAT (continued)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL	THREAD BOB/ LPR
46.	Sew on the buttons. Finished appearance: The buttons shall be securely sewn to the coat and shall properly engage the buttonholes in the left front.					
	a. Sew a 36-line button on each of the marks on the right front, as indicated by the patterns, with the stitching caught through the front interlining and the front facing. Each button shall be sewn through all plies of the material with the insignia in an upright position. All buttons shall be reinforced with a stay button on the facing side (see 3.2.13.5).	301	-----	14-16 per btn	30	30

3.7 **Finished measurements**. The finished measurements of the coat shall conform to Tables III and IV.

TABLE III. Coat measurements (inches)

SIZE		1/2 CHEST 1/	SLEEVE LENGTH 2/	BACK 3/
X-Short	34	18-3/4	15-1/2	28-3/4
	36	19-3/4	15-1/2	28-7/8
	38	20-3/4	15-1/2	29
	40	21-3/4	15-1/2	29-1/8
	42	22-3/4	15-1/2	29-1/4
Short	32	17-3/4	16-1/2	29-5/8
	34	18-3/4	16-1/2	29-3/4
	36	19-3/4	16-1/2	29-7/8
	38	20-3/4	16-1/2	30
	40	21-3/4	16-1/2	30-1/8
	42	22-3/4	16-1/2	30-1/4
	44	23-3/4	16-1/2	30-3/8
	46	24-3/4	16-1/2	30-1/2
	48	25-3/4	16-1/2	30-5/8
	50	26-3/4	16-1/2	30-3/4
Regular	32	17-3/4	17-1/2	30-5/8
	34	18-3/4	17-1/2	30-3/4
	36	19-3/4	17-1/2	30-7/8
	38	20-3/4	17-1/2	31
	40	21-3/4	17-1/2	31-1/8
	42	22-3/4	17-1/2	31-1/4
	44	23-3/4	17-1/2	31-3/8
	46	24-3/4	17-1/2	31-1/2
	48	25-3/4	17-1/2	31-5/8
	50	26-3/4	17-1/2	31-3/4
Long	32	17-3/4	18-1/2	31-5/8
	34	18-3/4	18-1/2	31-3/4
	36	19-3/4	18-1/2	31-7/8
	38	20-3/4	18-1/2	32
	40	21-3/4	18-1/2	32-1/8
	42	22-3/4	18-1/2	32-1/4
	44	23-3/4	18-1/2	32-3/8
	46	24-3/4	18-1/2	32-1/2
	48	25-3/4	18-1/2	32-5/8
	50	26-3/4	18-1/2	32-3/4

TABLE III. Coat measurements (inches) (continued)

SIZE		1/2 CHEST 1/	SLEEVE LENGTH 2/	BACK 3/
X-Long	34	18-3/4	19-1/2	32-3/4
	36	19-3/4	19-1/2	32-7/8
	38	20-3/4	19-1/2	33
	40	21-3/4	19-1/2	33-1/8
	42	22-3/4	19-1/2	33-1/4
	44	23-3/4	19-1/2	33-3/8
	46	24-3/4	19-1/2	33-1/2
Tolerance:	Plus	1/2	1/2	1/2
	Minus	1/2	3/8	1/2

1/ One half-chest measurement shall be taken with coat buttoned, from folded edge to folded edge in line with the pit of the armhole.

2/ Sleeve length measurement shall be taken along the inseam from the pit of the armhole to the bottom of the sleeve.

3/ Back length measurement shall be taken along the center seam from the undercollar seam to the bottom of the coat.

TABLE IV. Pocket welt and flap measurements (inches)

	Top Pocket Welt 1/			Lower Pocket Flap	
SIZES	WELT TOP LENGTH	WELT BOTTOM LENGTH	WELT DEPTH	FLAP LENGTH	FLAP DEPTH
38-42	4-1/4	4	1	6-1/8	2-1/2
44-50	4-1/2	4-1/4	1	6-5/8	2-1/2
TOLERANCE	-1/8 +0	-1/8 +0	-1/8 +0	±1/8	±1/8

1/ Lower pocket flap shall be measured from the top edge of the flap at the bottom of the pocket welt, to the bottom edge of the flap.

3.8 End item. The end item fusible shall have no "strike-through" of the adhesive after fusing. The production end item testing shall be as specified in 4.4.5. Copies of Figures 1 and 2 shall be attached to, and become part of, the contractor's end item examination record. Results of the end item dry-cleaning test shall be recorded on Figure 2.

3.9 Workmanship. The end item shall meet or exceed the quality of the product established by this specification.

4. QUALITY ASSURANCE PROVISIONS

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

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

4.1.2 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 the dimensions cannot be examined on the end item, inspection may be made at any point, or at all points in the manufacturing process necessary to ensure compliance with all dimensional requirements.

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

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

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

4.3 First article inspection. The first article, submitted in accordance with 3.1 and 6.3 shall be inspected as specified in 4.4.4 and 4.4.5 for compliance with design, construction, workmanship, and dimensional requirements.

4.4 Quality conformance inspection. Sampling for inspection shall be performed in accordance with MIL-STD-105, except where otherwise indicated.

4.4.1 Component and material inspection. In accordance with 4.1, components and materials shall be tested in accordance with all the requirements of the referenced specifications, drawings, and standards unless otherwise excluded, amended, modified, or qualified in this specification or applicable procurement documents. In addition, testing shall be performed on components listed in Table V for characteristics noted, including small parts and fronts fusibles fused to the outer shell fabric as prepared by the contractor during the pre-production testing period. The methods of testing specified in FED-STD-191, wherever applicable, and as listed in Table V shall be followed. All requirements are applicable to the sample unit. Unless otherwise specified, the lot average will apply when more than one determination is made per sample unit. All test reports, including Figures 1 and 2 shall contain the individual values used in expressing the final result. The component lot shall be unacceptable if one or more sample units fail to meet any of the test requirements specified. The lot size shall be expressed in linear yards and the sample unit shall be 18 linear inches full width. The sample size shall be in accordance with the following:

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

TABLE V. Component tests - fusible materials

Component	Characteristic	Requirement	Test Method
Cloth, fusible, all parts	Color	3.2.4.1 through 3.2.4.2	Visual 1/
	Adhesive type	3.2.4.1 through 3.2.4.2	1/

TABLE V. Component tests - fusible materials (continued)

Component	Characteristic	Requirement	Test Method
	Evenness of adhesive	3.2.4.1 through 3.2.4.2	1/ 2/
	Colorfastness to drycleaning	3.2.4.4	5621

1/ A certificate of compliance will be accepted for this requirement.

2/ A 12-inch head end per 100 yards of fusible material shall be viewed under a black light for unevenness of adhesive, missing dot, or extreme heavy coating. Any of these conditions observed shall cause rejection of the 100-yard sample.

4.4.2 Daily preproduction testing. The preproduction tests shall be done each day prior to the start of production and shall be in accordance with the following:

TABLE VI. Daily preproduction tests

Characteristic	Requirement	Test procedure
Bonding strength		
Small parts	3.2.4.3	4.4.2.3
Fronts	3.2.4.3	4.4.2.3
Fusing press settings	3.2.4.6	4.4.2.1
Actual fusing	3.2.4.6	-------

4.4.2.1 Fusing press settings. Before production begins each day, visually check all fusing machine settings for temperature, pressure, and conveyor speed dwell time for conformance with manufacturer's recommendations. Non-conforming settings shall be adjusted accordingly. Actual settings will be recorded in the first column of Figure 1.

4.4.2.2 Actual fusing temperature. Two swatches of outershell material, 12 inches in the warp direction and 11 inches in the filling direction, shall be cut from the outershell material to be used in the first two hours of the day's production. At the same time, one swatch each of small parts and fronts fusible material, 12 inches in the warp (machine) direction and 11 inches in the filling (cross-machine) direction, shall be cut from the material to be used in the first two hours of the day's production.

All test swatches shall be cut into three equal parts of approximately 3.6 inches by 12 inches. The fusible test swatches may be cut slightly smaller in size to avoid conveyor belt contamination.

Sandwich a temperature strip face down between one specimen of the outershell material placed face down and a specimen of fronts fusible material placed on top with the adhesive side down. The temperature strip shall be placed slightly within the fusible starter strip. All small parts and fronts fusings shall have an approximate 1 inch by full width starter strip or non-fused area incorporated into the top portion of any given bond strength samples.

This can be accomplished by placing a thin non-adhesive material between the fusible interlining and outershell before fusing, or by folding the fusible onto itself. This sample shall be placed in the center of the fusing press conveyor with the outershell material down.

Prepare two additional samples as described above using the fronts fusible material and place them on the left and right sides of the conveyor belt with the outershell material face down. Repeat the process for the small parts fusible material but without using the temperature strips.

Lanes may be designated on the samples if necessary. After the fusing press is fully warmed up, run all the samples through the press. When all the samples are cool to the touch after running through the fusing press, take the temperature test strip specimens, determine the average of the three readings, and record the results in column 2 of Figure 1.

Retain each individual temperature reading in an organized self-developed worksheet format. If the average falls outside of the fusible manufacturer's recommended range, or if there is a variance in excess of $10^{\circ}F$ or $6^{\circ}C$ between lanes, determine the cause, correct the problem, and repeat the testing process. Actual temperature and time shall be recorded in Figure 1 (see 6.6 for suggested temperature sources).

4.4.2.3 Bonding strength. To determine bonding strength, trim all small parts and fronts fusible swatches from the actual fusing temperature test. The swatches shall be cut into 1-inch by 12-inch strips. Pinking shears shall not be used to cut the strips. The outershell fabric of each strip shall be clamped at the top. The fusible material shall be pulled from the starter strips, continue downwards in a vertical direction, and revolve in a steady continuous motion. A constant-rate-extension (CRE), a constant-rate-traverse (CRT), or a calibrated, spring-scale-type tester may be used. If a spring-scale-type tester is used, it shall be calibrated at a minimum of once weekly.

Any calibration procedure used shall ensure an accuracy of 1/4 ounce or better. The date of the calibration shall be entered on Figure 1. Average the three bonding strength readings in an organized, self-developed, worksheet format and record the averages on Figure 2. If any individual reading fails to meet the minimum bonding strength requirement specified in 3.3.4.3, cause shall be determined, corrections shall be made, and the material shall be retested. This shall be done until the problem is resolved before commencing production. In case of bonding strength dispute, see 6.8.

4.4.3 In-process inspection. Inspection of sub-assemblies 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 as a nonconformance. Examination shall be made of the following operations to establish conformance to specified requirements. When nonconformance is noted, corrections shall be made to the areas affected, the lot in process, and to the operations. Parts which cannot be corrected shall be removed from production. Nonconforming material shall be handled in accordance with MIL-I-45208.

a. Visual and dimensional examination of the working patterns to determine that they conform to the Government patterns in all respects (see 3.4).

b. Visual and dimensional examination of the cut parts to determine that they are properly cut with respect to size, material directional requirements (warp and filling); that location marks and notches on the parts are located correctly; and that parts containing material defects and damages have been removed (see 3.5.5 and Table II, operations 1 through 4).

c. Visual examination of cut parts during assembly of the coat to determine proper shade matching (see 3.5.5 and Table II, operation 5).

d. Visual examination of fused cut parts to ensure conformance to the specified positioning requirements of operation 6 in Table II, and that there is no bubbling, strike back, or strike through. Additionally, all cut parts shall be examined for any resin transference.

e. Visual examination of the collar gorge seam to determine if the seam is tacked open, and if the bridle tape is caught in the tacking (see Table II, operation 34.c).

f. Visual examination of the sleeves (prior to basting lining to armhole, side seams, and bottom of the coat) to determine that the sleeves are set uniformly, with fullness at the armhole, and distributed without pleats or puckers (see Table II, operation 35). 1/

g. Visual examination of taped front and back armholes to determine that the armhole tape is stitched correctly, without indication of a stretched back and front armhole (see Table II, operations 8 and 10). 1/

h. Visual examination to determine that the breast welt conforms to the breast welt shaper, and that the lower pocket flaps conform to their respective pocket flap shapers (sew in line). 2/

1/ For this examination, the contractor shall establish an inspection station. Periodic examination shall be made during each work shift to determine that the requirements are being met.

2/ This examination shall be performed prior to stitching the flaps to the coat front.

4.4.3.1 In-process fusing press maintenance and representative production testing. In-process tests listed in Table VII shall be performed. Actual fusing temperature and bonding strength testing shall be performed, as a minimum, after every 2 hours of fusing production time, and prior to re-starting fusing production after any stopping of fusing for 29 minutes or more. Pressure evenness and dwell time maintenance testing shall be performed once weekly. All representative production testing shall be performed on the outershell, small parts and fronts fusible materials. The samples shall be from component lots to be consumed in the next 1000 units of coat production. Sample size, acceptance criteria, and rejection criteria shall be as specified in the applicable test procedure.

TABLE VII. In-process fusing press maintenance and representative production tests

Characteristic	Requirement	Test procedure
Fusing press maintenance:		
Bonding strength		
Small parts	3.2.4.3	4.4.2.3
Fronts	3.2.4.3	4.4.2.3
Actual fusing temperature	3.2.4.6	4.4.2.3
Pressure evenness	3.2.4.6	4.4.3.2
Dwell time	3.2.4.6	4.4.3.2
Representative production:		
Directional shrinkage	3.2.4.5	4.4.3.3
Appearance (before & after drycleaning)	3.2.4.5	4.4.3.4
Drycleaned shrinkage	3.2.4.5	4.4.3.4
Drycleaned bonding strength		
Small parts	3.2.4.3	4.4.3.4
Fronts	3.2.4.3	4.4.3.4

4.4.3.2 Pressure evenness and dwell time. Cut five strips, 12 inches (in the warp direction) by 2 inches (in the filling) of outershell material and slightly smaller sized fronts fusible material. Place each of the fusible strips with the adhesive side down on the top of the outershell material with the face side down and with a fusible starter strip (see 4.4.2.2). Arrange the five specimens on the fusing press conveyor belt alongside each other in five different lanes consisting of extreme left, middle left, center, middle right, and extreme right. Lanes may be marked on each strip if necessary. Run any mechanism that assures proper timing, then mark the time elapsed from the time it is released from the pressure contact. As an alternate procedure, the dwell time test may be conducted with the outer-shell differential swatches required in 4.4.3.3. Enter the dwell time on Figure 1. Remove the strips from the fusing machine when adequately cooled, cut the fused outer shell and fusible laminate to a 1-inch filling direction, and perform the bonding test in 4.4.2.3 on all five specimens. The results for each specimen shall be recorded on Figure 1.

The dwell time shall be consistent with the machine speed ratings, and the fusible manufacturers recommended range. All five specimens shall meet the minimum initial requirement for bond strength specified in 3.2.4.3. Any variations shall be investigated for cause, corrections made, and the testing process repeated.

4.4.3.3 Differential shrinkage. From the outershell material, cut three swatches, 12 inches (in the warp direction) by 11 inches (in the filling), and one each slightly smaller sized (not less than 10.5 inches) swatches from small parts and fronts fusible materials. Mark all the swatches with 10-inch-square gage marks using dry-cleaning-resistant ink. Run one swatch of the outer-shell material through the heated fusing press by itself, and record the dimensional change in both directions to the nearest one-half percent. As an alternate, the dwell time test (see 4.4.3.2) may be conducted using this swatch.

Prepare the two composite samples with the remaining two outershell swatches placed face down. Then place the small parts and fronts fusible material swatches, matching the outershell warp direction, on top with the adhesive side down, and with the fusible starter strips (see 4.4.2.2). After running through the fusing press, record the dimensional changes in both directions to the nearest one-half percent. Differential shrinkage shall be calculated as the difference, if any, between the dimensional percent changes in the outershell-only material and each of the fusible materials. If the differential shrinkage exceeds the requirements specified in 3.2.4.5, investigate to determine cause, correct the problem, and repeat testing.

4.4.3.4 Dry-cleaning appearance, shrinkage and bonding strength. For all tests, use the two small parts and fronts premarked 12-inch by 11-inch fused swatches fabricated in 4.4.3.3. Prior to dry-cleaning, the two swatches shall be pressed twice each on a top-and-bottom steam press with closed head for 20 seconds and vacuumed for 10 seconds. Both swatches shall be drycleaned three times as specified in Table IV, using a commercial dry-cleaning procedure and perchlorethylene solvent. Each swatch shall be steam-pressed with 20-second bottom steaming in the non-locked position, and vacuumed after each of the three dry-cleanings. After cleaning and pressing, examine the swatches for bubbling, delamination or strike through, and record the observations on chart A of Figure 2.

Measure the bench mark on the outershell material in both directions for each swatch, determine the shrinkage to one-half percent, and record results on chart A of Figure 2. Trim each swatch into three 1-inch by 12-inch strips and perform bonding strength tests using the bonding strength procedure in the preproduction testing in 4.4.2.3.

Retain each individual bonding strength reading in an organized self-developed worksheet format and record the averages on chart A of Figure 2. Any evidence of bubbling, delamination, strike through, shrinkage, or bonding strength not meeting the requirements of 3.2.4.3, shall be investigated for cause, corrections made, and retesting performed before continuing production of the 1000 coats represented by the sample.

4.4.3.5 Examination of coat fronts and facings. The right and left coat fronts, after stitching side fronts, darts, making lower pockets, attaching breast pockets, pocket flaps, coat front fusible interlinings and all other fused parts, bridle tape, and facing, shall be examined for the defects listed below. The lot shall be all pairs (matched right and left) of coat fronts submitted for inspection at one time. The sample unit shall be one pair of coat fronts (right and left).

EXAMINE	DEFECT
Front and side body darts	a. One or more omitted. b. One or more not as specified. c. One or more not pressed as specified.
Front fusible interlinings, facing fusible interlinings, and all other fused component cut parts	a. Not attached or positioned as specified. b. Not fused. c. Omitted.
Front floating chest piece	a. Not attached or positioned as specified. b. Omitted. c. Not assembled in accordance to specified requirements.
Breast welt and lower pocket flaps	One or more out of alignment or not parallel with front edge.
Bridle tape	a. Omitted. b. Misplaced at gorge: -More than 3/8 inch behind lapel breakline. -Onto or extending beyond breakline on lapel side.

EXAMINE	DEFECT
	c. Misplaced at bottom lapel breakline: -More than 5/8 inch behind breakline. -Onto or extending beyond breakline on lapel side. -Not within 1 to 1-1/2 inches from bottom lapel.

4.4.3.6 Examination of fronts and backs after joining. The fronts and backs after joining shall be examined for the defects listed below. The lot shall be all joined fronts and backs submitted for inspection at one time. The sample unit shall be one coat.

Examine	Defect
Fronts and lapels	One or more not shaped in accordance with shaper patterns.
Left front	Not dressed from bottom notched to base of lapel.

4.4.4 Point count inspection. Sampling and inspection provisions for end item examination, dimensional examination, and packaging inspection shall be performed in accordance with MIL-STD-1490, except that for the end item examination, the following additional defects and point values shall apply:

		Point value
1.	Delamination	
	a. Partial or complete delamination on any fused component	*
	b. Bubbling on any fused component	*
2.	Any strike through or bleed through	*

		Point value
3.	Any resin transfer to coat	
	a. On any fused component	*
	b. Non-fused component	*
4.	Bar code tag/label	
	a. Bar code omitted or not readable by scanner	*
	b. Human-readable interpretation (HRI) omitted or illegible	*
	c. Not visible on folded, packaged item	*
	d. Causes damage to the item	*

4.4.5 End item testing. One coat shall be randomly selected for end item testing for each 3000 coats, or any portion of 3000 coats in the end item lot. Each coat selected shall be initially examined visually for any defects in the fusible category of MIL-STD-1490. After initial examination, each sample unit shall be drycleaned and pressed three times as described in 4.4.3.4. Each sample coat shall then again be visually examined for fusible defects as listed in MIL-STD-1490. If any sample coat contains any fusing defects after three dry-cleanings and pressings, then retesting shall be performed by randomly selecting one coat for each 1000 coats, or any portion of 1000 coats in the end item lot, and repeating the testing procedure. If any sample coat contains any fusing defects after three dry-cleanings and three pressings upon retesting, the end item lot shall be rejected. An end item testing chart shall be maintained in accordance with Figure 2.

4.4.6 Examination of packaging requirements. An examination shall be made to determine that packaging, packing, and marking shall comply with Section 5 requirements of this specification. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully prepared for delivery. Defects of closure listed below shall be examined on shipping containers fully prepared for delivery. The lot size shall be on the number of shipping containers in the end item inspection lot.

Examine	Defect
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

Examine	Defect
Workmanship	Inadequate, application of components, such as: incomplete closure of container flaps, loose strapping, improper taping, inadequate stapling, bulged or distorted container.
Content	Number of items per shipping container is more or less than required. Size shown on one or more items not as specified on shipping container. 1/

1/ For this defect, one item from each shipping container in sample shall be examined.

4.4.7 Palletization examination. The fully packaged and palletized 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.

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

5. PACKAGING

5.1 Preservation. Coats shall be preserved as specified in MIL-C-44192.

5.2 Packing. Packing shall be Commercial or as specified in MIL-C-44192 (Container, Shipping and Storage, Coat (Hanger Pack), (see 6.2).

5.2.1 Hanger packs. When specified (see 6.2), 12 coats shall each be placed on a 16-inch hanger for sizes up to and including size 36, on a 17-inch hanger for size 37 and larger, placed in a polyethylene bag, and packed in a type I container (hanger pack) in accordance with MIL-C-44192. The loaded containers shall be palletized and marked in accordance with MIL-C-44192.

5.2.2 Commercial. Coats preserved as specified in 5.1, shall be packed in accordance with ASTM D 3951 (quantity as specified in 6.2).

5.3 Palletization. When specified (see 6.2), coats packed as specified in 5.2.2, shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Pallet pattern shall be in accordance with MIL-STD-147.

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

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 items are intended for wear as part of the service uniform worn by the male military personnel of the Department of the Air Force.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number and date of this specification.
b. Lengths and sizes required (see 1.2.1).
c. Issue of DODISS to be cited in the solicitation and, if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
d. When first article inspection is required, (see 3.1, 4.3 and 6.3) the item will be tested and should be a first article sample. The contracting officer should include specific instructions in acquisition documents regarding arrangement for examinations, quantity, and testing and approval.
e. Selection of applicable levels of preservation and packing (see 5.1 and 5.2).
f. When hanger pack is required (see 5.2).
g. Quantity unit pack when commercial pack is required (see 5.2.2).
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 to be furnished. The contracting officer should include specific instructions in all acquisition documents regarding arrangements for selection, inspection, and approval of first article.

6.4 Samples. For access to samples, address the contracting activity issuing the invitation for bids.

6.5 Nylon thread. The particular nylon thread chosen should perform satisfactorily in each of the operations for which it is allowed under mass production conditions. Thread guide and tension devices should be carefully examined, and rough or worn machine components should be replaced. High needle temperature should be avoided to prevent melting of the thread.

6.6 Temperature indicators. Suggested sources for temperature indicators are as follows:

Paper Thermometer Company	(603) 547-2034
MRC Inc. Reatec Div.	(215) 687-4300

6.7 Release agent. Suggested source for release agent is as follows:

Apparel Machine and Supply Co. (EZ Off Agent) (215) 634-2626 recording on a CRE Tensile Tester, running at 12 inches per minute, shall determine the bonding strength. If splitting is observed, then just the highest peak shall be regarded as the bonding strength.

6.8 Bonding strength dispute. In case of dispute, the average of the first 3 inches of the five highest bonding strength peaks from a chart recording on a CRE Tensile Tester running at 12 inches per minute shall determine the bonding strength. If splitting is observed, then just the highest peak shall be regarded as the bonding strength.

6.9 Basting recommendations. In order to ensure good basting without quilling effect (protrusion of extraneous fibers through basting needle holes), the following practices are recommended:

a. Use either 70/2 smooth finish cotton/polyester wrap or a polyester 100/2 thread. Avoid using threads with coarse, hairy exterior structure.

b. Use the finest sewing needle possible (sizes 12 or 14) with a ballpoint. Larger sized needles will provide larger holes and a better chance for fibrous material to enter.

c. Increase quality control checks on needle changes during production. Dull or burred needle tips will push fibrous material to outershell exterior.

d. Reduce basting sewing tensions and amount of pull on the material being sewn wherever possible.

6.10 Subject term (key word) listing.

Dress clothing
Fusible interlining

Custodian:

Air Force - 99

Review Activities:

Air Force - 82, 45, 11

Preparing Activity:

DLA - CT

Project No. 8405-0226

FUSING PRESS MAINTENANCE/BONDING STRENGTH CHECK CHART
ONE WEEK PRE-PRODUCTION & PRODUCTION

Fusing Press Settings
Recommended by Fusible Mfg

TIME

Contract #_____ TEMPERATURE | BONDING STRENGTH - Temperature F (C) _____

Contractor _____ Pressure, bar _____

OAH Name _____ Dwell Time Sec _____

Date: DD/MM/YY	Initial Daily Test (after machine warm up)	Record and test every TWO hours after and subsequent to any 29 minute (min) production stoppage.	FUSING PRESS CLEANLINESS once daily
MS MT - P - DT MC	T TE BS * I II		AI
MT - P - DT MS	T TE BS * I II		AI
MT - P - DT MS	T TE BS * I II		AI
MT - P - DT MS	T TE BS * I II		AI
MT - P - DT MS	T TE BS * I II		AI
MT - P - DT MS	T TE BS * I II		AI

* Min. req.: 2 lbs (32 oz.) (907 gms.) / inch or Split for Type I

PRESSURE EVENNESS, BONDING STRENGTH
TEST ONE WEEKLY

Date: AI _____

____/____/____ ___ ___ ___ ___ ___

DWELL TIME, SEC.
TEST ONCE WEEKLY

Date: MACHINE SETTING STOP WATCH READING

____/____/____ - - ____AI _____

SPRING SCALE CALIBRATION
TEST ONCE WEEKLY

Date

____/____/____ AI _____

KEY:

AI	Authorized intials to verify contractor tests.
BS	Bonding Strength/ in . Ave.
DT	Dwell Time
MS	Machine Setting
MT	Machine temperature
P	Pressure
T	Time
TE	Temperature strip reading, Ave.
I	Type I, nonwoven fusible
II	Type II, woven fusible

Figure 1

Representative Production Bond Strength Check Chart
Chart A

Contract # _____

Contractor _____

OAR Name _____

Type I. Non Woven Fusible * Type II. Woven Fusible *

* All samples shall be pressed twice before being dry cleaned.

Representative Production Units / 1,000	Date: DD/MM/YY	Prod. lot #	Shrink.% Diff DC.	B.S. After 3 DC	Appear. After 3 DC.	Shrink.% Diff DC.	B.S. After 3 DC	Appear. After 3 DC.	AI
1 - 1,000	___/___/___								
1,001 - 2,000	___/___/___								
2,001 - 3,000	___/___/___								
3,001 - 4,000	___/___/___								
4 001 - 5,000	___/___/___								
5,001 - 6,000	___/___/___								
6,001 - 7,000	___/___/___								
7,001 - 8,000	___/___/___								
8,001 - 9,000	___/___/___								
9,001 -10,000	___/___/___								
10,001 -11,000	___/___/___								
11,001 -12,000	___/___/___								
Requirement:			1.5 % (max) / 2 % (max)	** or split	Good	1.5 % (max) / 2 % (max)	**	Good	

End Item Testing Check Chart
Chart B

Coats Production Units / 1,000	Date: DD/MM/YY	Coat Prod. lot #	Appearance Initial Good	Initial Poor	After 3 DC * Good	After 3 DC * Poor	Coat Lot Accept	Coat Lot Reject	AI
1 - 1,000 Retest:	___/___/___								
1,001 - 2,000 Retest:	___/___/___								
2,001 - 3,000 Retest:	___/___/___								
3,001 - 4,000 Retest:	___/___/___								
Requirements:			Good		Good				

KEY:
Shrink. Diff. — Shrinkage Differential (W x F)
DC. — Drycleans (W x F)
(W x F) — Warp x Filling
Appear. — Appearance
B.S. — Bonding Strength /in. Ave.
AI — Authorized Initials
** — 1.5 lbs. (24 oz.) (680 gms.)

Figure 2

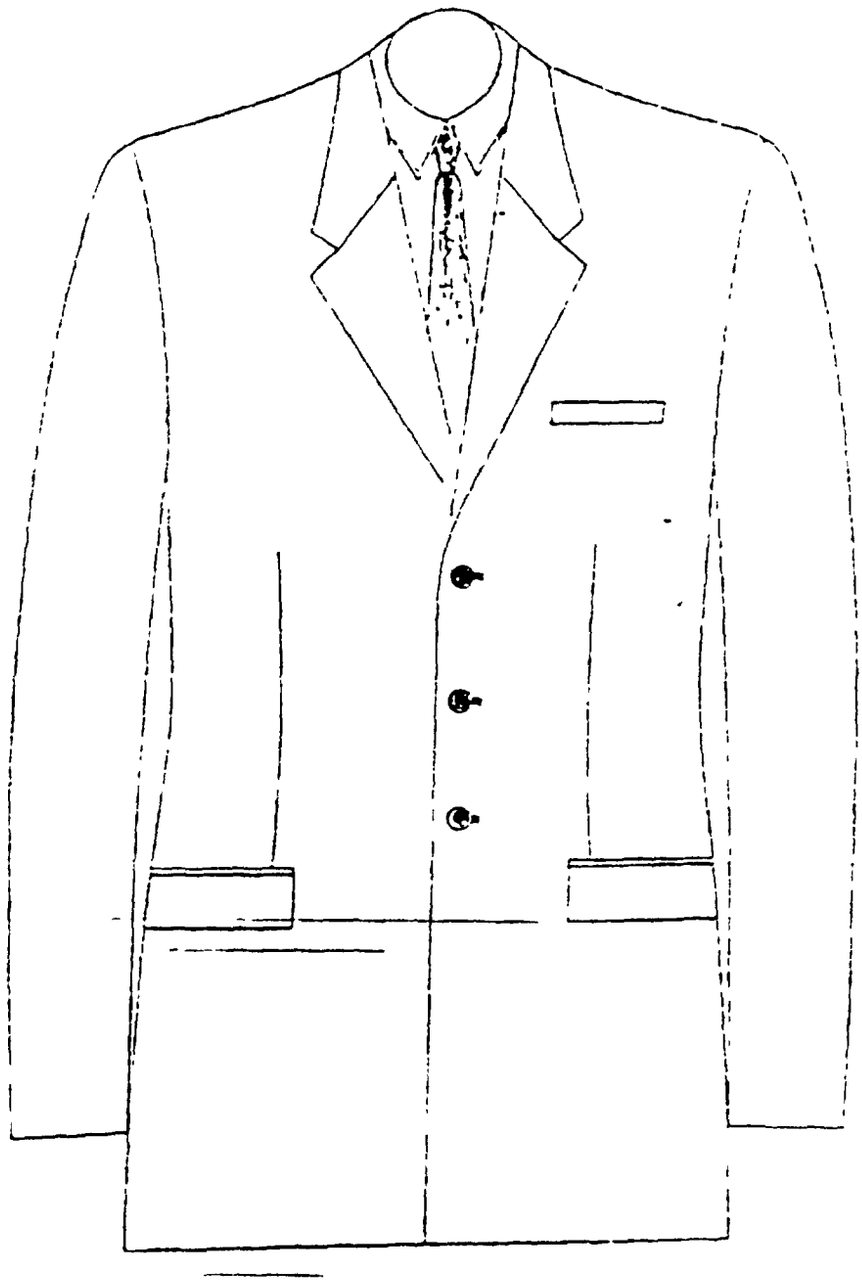

Figure 3. Coat - Front View

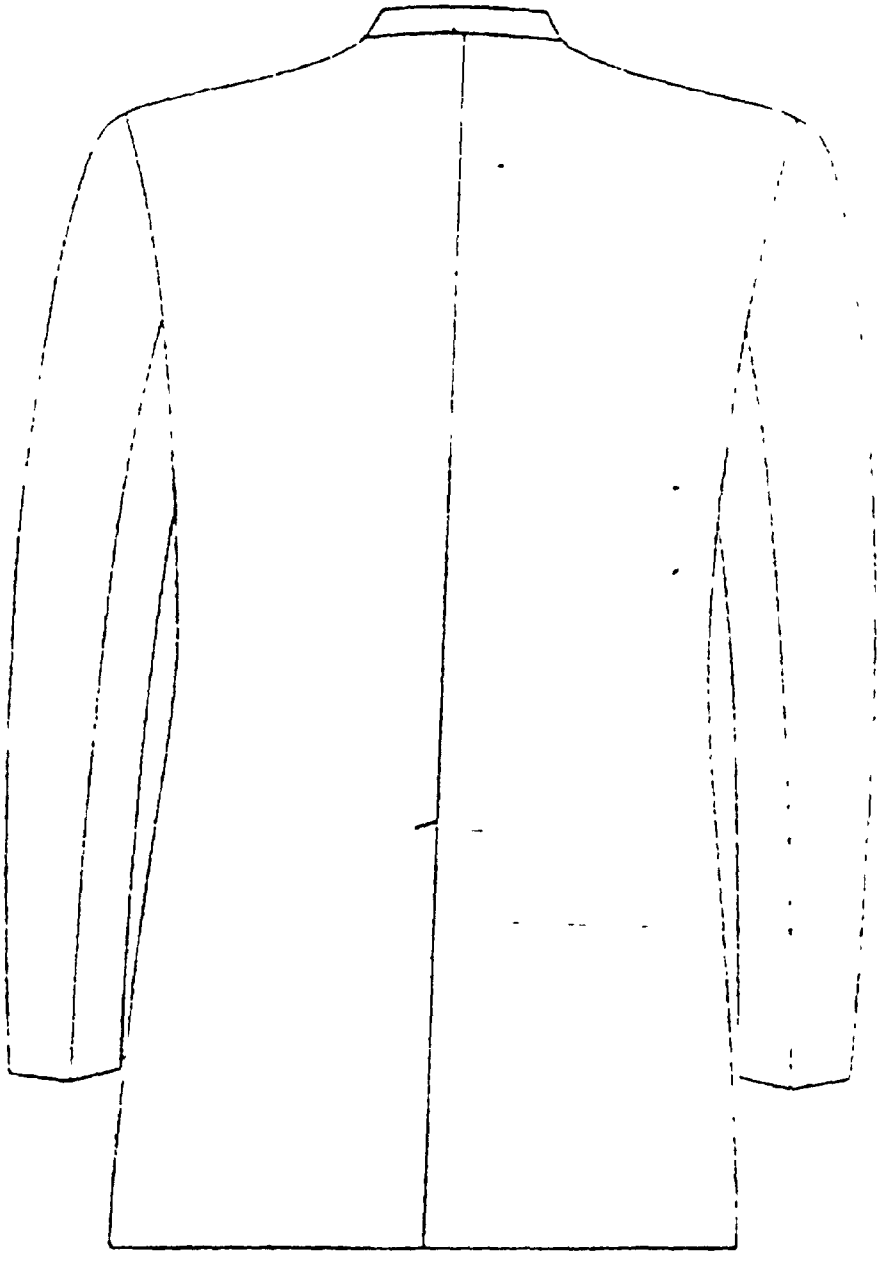

Figure 4. Coat - Back View

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

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

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER MIL-C-51006	2. DOCUMENT DATE (YYMMDD) 94-02-18

3. DOCUMENT TITLE: COAT, MAN'S

4. NATURE OF CHANGE (*Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.*)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (*Last, First, Middle Initial*)	b. ORGANIZATION	
c. ADDRESS (*Include Zip Code*)	d. TELEPHONE (*Include Area Code*) (1) Commercial (2) AUTOVON (*If applicable*)	7. DATE SUBMITTED (YYMMDD)

8. PREPARING ACTIVITY

a. NAME Defense Personnel Support Center ATTN: DPSC-FSSD (12-3-D)	b. TELEPHONE (*Include Area Code*) (1) Commercial (215) 737-8105 (2) AUTOVON 444-8105
c. ADDRESS (*Include Zip Code*) 2800 South 20th Street P. O. Box 8419 Philadelphia, Pennsylvania 19101-8419	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2340 AUTOVON 289-2340