

INCH-POUND

GL/PD 14-04B

7 March 2023

SUPERSEDING

GL/PD 14-04A

27 February 2015

DETAIL SPECIFICATION

COAT, ADVANCED COMBAT UNIFORM

This specification is approved for use by DLA Troop Support and is available for use by all Departments and Agencies of the Department of Defense (DoD).

1. SCOPE

1.1 Scope. This specification covers the requirements for unisex and female advanced combat coats to be worn by Military personnel.

1.2 Classification. The coat will be of the following types, styles, classes and sizes as specified.

1.2.1 Types.

Type I - 50/50 Nylon/Cotton Ripstop

Type II - DELETED

Type III - Flame Resistant Cloth Ripstop

1.2.2 Styles.

Style A - Unisex

Style B - Female

1.2.3 Classes.

Class 1 - Untreated

Class 2 - Permethrin Treated

Class 3 - Insect Repellent Treated

Comments, suggestions, or questions on this document should be addressed to: Department of the U.S. Army, DEVCOM – Soldier Center, ATTN: FCDD-SCD-PEI, 10 General Greene Avenue, Natick, MA 01760-5019.

AMSC N/A

FSC 8415

DISTRIBUTION STATEMENT A. Approved for public release. Distribution is unlimited.

1.2.4 Sizes. The coat sizes will be as follows:

STYLE A. UNISEX SCHEDULE OF SIZES					
X-Small (XS)	Small (S)	Medium (M)	Large (L)	X-Large (XL)	XX-Large (2XL)
XX-Short (XX-S)	XX-Short	XX-Short	XX-Short	XX-Short	----
X-Short (X-S)	X-Short	X-Short	X-Short	X-Short	----
Short (S)	Short	Short	Short	Short	----
Regular (R)	Regular	Regular	Regular	Regular	Regular
Long (L)	Long	Long	Long	Long	Long
X-Long (X-L)	X-Long	X-Long	X-Long	X-Long	X-Long
XX-Long (XX-L)	XX-Long	XX-Long	XX-Long	XX-Long	XX-Long

STYLE B. FEMALE SCHEDULE OF SIZES			
30	33	36	39
X Short	X Short	X Short	----
Short	Short	Short	Short
Regular	Regular	Regular	Regular
----	Long	Long	Long
----	----	X-Long	X-Long

2. APPLICABLE DOCUMENTS

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

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

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COMMERCIAL ITEM DESCRIPTIONS

- A-A-50198 - Thread, Gimp, Cotton, Buttonhole
- A-A-50199 - Thread, Polyester Core, Cotton or Polyester-Covered
- A-A-55126 - Fastener Tape, Hook and Loop, Synthetic
- A-A-55195 - Thread, Para-Aramid, Spun, Intermediate Modulus
- A-A-55217 - Thread, Aramid, Spun Staple
- A-A-55634 - Zippers (Fasteners, Slide Interlocking)
- A-A-59994 - Button, Sewing, Hole and Button Staple (plastic)

DEPARTMENT OF DEFENSE SPECIFICATIONS

- MIL-DTL-5038 - Tape, Textile and Webbing, Textile, Reinforcing Nylon
- MIL-DTL-32075 - Label: For Clothing, Equipage, and Tentage (General Use)
- MIL-PRF-32635 - Cloth, Flame Resistant
- MIL-PRF-32659 - Textiles: Vector Protection Treatment of
- MIL-C-44296 - Cloth, Fusible
- MIL-DTL-44436 - Cloth, Camouflage Pattern, Wind Resistant Poplin, Nylon/Cotton Blend

(Copies of these documents are available online at <https://quicksearch.dla.mil>.)

2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those specified in the solicitation or contract.

OTHER GOVERNMENT DOCUMENTS AND PUBLICATIONS

PURCHASE DESCRIPTIONS

- CO-PD-06-05 - Patch and Brassard, Identification, Infrared Retroreflective
- GL-PD-10-08 - Patch Kit, Integrated, Flame Resistant (IPK)

(Copies of these documents are available through the contracting activity.)

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

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC)

- AATCC TM81 - Test Method for pH of the Water-Extract from Wet Processed Textiles
- AATCC TM135 - Test Method for Dimensional Changes of Fabrics After Home Laundering

(Copies of these documents are available online at <https://aatcc.org>.)

AMERICAN SOCIETY FOR QUALITY (ASQ)

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

(Copies of this document are available online at <https://asq.org>.)

ASTM INTERNATIONAL

ASTM D3990 - Standard Terminology Relating to Fabric Defects

ASTM D5034 - Standard Test Method for Breaking Strength and Elongation of Textile
Fabrics (Grab Test)

ASTM D6193 - Standard Practice for Stitches and Seams

(Copies of these documents are available online at <https://www.astm.org>.)

OTHER PUBLICATIONS

SDL ATLAS

Part Number 402985 – Slub/Knot Replica Set (Fabric Defect Replica Scales)

(Replica set is available for purchase from SDL Atlas Customer Service, 1-803-329-2110)

2.4 Order of precedence. Unless otherwise noted herein or in the contract, 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 Inspections.

3.1.1 First article. When specified (see 6.2), a sample shall be subjected to first article inspection in accordance with 4.2.

3.1.2 Conformance inspection. When specified (see 6.2), a sample shall be subjected to conformance inspection in accordance with 4.3.

3.2 Recycled, recovered, environmentally preferable, or biobased materials. Recycled, recovered, environmentally preferable or biobased materials should be used to the maximum extent possible, provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

3.3 Design. The coat design for Style A-Unisex and Style B-Female has a single-breasted front with a slide fastener (double slider) closure and a secondary hook and loop fastener tape closure; a band collar; long sleeves with cuffs and one (1) button, three (3) buttonholes adjustable cuff tab; and a bi-swing back. The collar has a fusible interlining. The front has two (2) angled chest pockets with flaps with hook and loop fastener tape closures. Above each chest pocket there is loop tape to accommodate the Name and US Military Service Tapes. The front placket has a loop tape for the Rank Patch. The coat has two (2) bellow style upper sleeve pockets and includes an eyelet drain-hole and loop fastener tape on the outside of the pocket. Each sleeve pocket has a slide fastener (zipper) closure on the front side (as worn) (see figure 4). The coat sleeves have an elbow reinforcement patch. Both sleeves have an Identification Friend or Foe (IFF) tab cover that can be opened and closed using hook and loop fastener. The IFF tab cover is centered and sewn onto the sleeve above the upper sleeve pocket. The left sleeve has a two (2) channel pencil pocket. The coat has a double turned and cleaned finished hem. The Type III coat has an FR indicator located on the outside of the left sleeve cuff.

3.4 Materials.

3.4.1 Basic material (Type I only). The basic material for the Type I coat shall be a 50/50 nylon/cotton blend, wind resistant poplin ripstop cloth in Operational Camouflage Pattern (OCP) conforming to Class 14 of MIL-DTL-44436 as specified (see 6.2).

3.4.2 DELETED (see 6.9.1).

3.4.3 Basic material (Type III only). The basic material for the Type III coat shall be an FR ripstop cloth conforming to MIL-PRF-32635 Type III, Class 1 in OCP as specified (see 6.2).

3.4.4 Insect bite protection (all types). Materials may be treated as an option to obtain bite protection performance. Insect repellent treatment processes shall be in accordance with MIL-PRF-32659. The treated-fabric and/or items shall be labeled in accordance with MIL-PRF-32659. The insect repellent finish shall be uniformly applied across the treated fabric and/or items at an initial target level as specified in the EPA registered label. The treatment level shall provide the percent (%) bite protection specified in 3.5.1. The finished insect repellent treatment shall not degrade any performance characteristics or present any latent defects to the treated fabric and/or items.

3.4.5 Fusible interlining (all types, styles and classes). The fusible interlining for all Styles shall conform to MIL-C-44296, Type V, VI or VII, style B or C substrate with Class 1 (polyamide) or Class 3 (Polyethylene, high density) adhesive. The fusible shall meet the bonding strength and shrinkage requirements, initial and after three (3) launderings as specified in MIL-C-44296.

3.5 Insect bite protection (Classes 2 and 3 only, all styles). The finished garments with insect repellent treatment shall provide the minimum mosquito bite protection specified in 3.5.1 and the treatment shall be strictly limited to the levels specified in the contract and is active ingredient dependent.

3.5.1 Percent (%) bite protection. Finished insect repellent treated garments shall provide the minimum bite protection specified below when assessed by the biting protection testing specified in 4.4.2. Government approval shall be required initially, and any time there is a change in the insect repellent treatment formulation or processing conditions.

	<u>Type I, Class 2 and 3</u>	<u>Type III, Class 2 and 3</u>
Condition	% Bite Protection	% Bite Protection
Initial (1 Wash)	>= 90%	>= 85%
After 20 launderings	>= 90%	>= 80%
After 50 launderings	>= 90%	>= 80%

3.5.1.1 Insect repellent garment treatment of camouflage patterns (Classes 2 and 3 only, all styles). The mixing of camouflage patterns in the same insect repellent treatment garment application is not allowed. Patterns shall be treated separately.

3.5.1.2 Insect repellent garment application, finished measurements (Classes 2 and 3 only, all styles). Manufacturers shall comply with the finished measurement requirements in 3.12.1 and compensate for actual fabric shrinkage or growth after the application of garment treatment in accordance with the requirements in MIL-PRF-32659.

3.5.2 Insect repellent treatment (Class 2 and 3 only, all styles). Insect repellent treatment process shall be in accordance with MIL-PRF-32659. The treated items shall be labeled in accordance with 3.8.3 and 3.8.4. The insect repellent finish shall be uniformly applied across the treated item at an initial target level as specified in the EPA registered label. The treatment level shall provide the percent (%) bite protection specified in 3.5.1. The finished insect repellent treatment shall not degrade any performance characteristics or present any latent defects to the treated item.

3.5.3 pH (Class 2 and 3 only). The pH value of the water extract of all the finished cloth and garments shall be no lower than 5.0 or higher than 8.5 when tested as specified in 4.4.2.

3.6 Component materials and shade (All types, styles, and classes). The component materials for the coat shall be made in accordance with paragraphs 3.4 - 3.6.9. Component materials for the coat are for all types, classes and styles unless otherwise noted. All component shade shall be Tan 499 for OCP uniforms with the exception of 3.7.13, Integrated Patch Kit (IPK). IPK shade shall be the camouflage print of the uniform.

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3.6.1 Slide fasteners.

3.6.1.1 Coat front slide fastener. The slide fastener shall be a two (2) -way separating, non-reversible, automatic locking slider, Size 5, plastic individual element fastener (IEF) conforming to Type III, Style 13, Class 1 of A-A-55634 and shall have a double pin separating unit at bottom. The slide fastener shall have a crosswise breaking strength of not less than 100 pounds (average) with no individual reading less than 90 pounds, a minimum single element slippage of 16 pounds, minimum separable pin holding strength of 35 pounds and a minimum slider tab 90 degree pull off strength of 35 pounds when tested as specified in A-A-55634. The pin engagement and disengagement force into the dual sliders shall be a smooth single action without sticking or having to rework pin or sliders. The opening for the slider's top and bottom pull-tabs shall be a minimum of 5 millimeters length by 7 millimeters width. The length of the slide fastener shall be as follows in Table IA and Table IB:

TABLE IA. Style A. Unisex slide fastener lengths (inches).

Length	All sizes
XX-Short	15
X Short/ Short	16
Regular/ Long	17
X-Long/ XX-Long	18

NOTE: Unisex slide fastener lengths are coordinated with coat lengths and not coat size.

TABLE IB. Style B. Female slide fastener lengths (inches)

Length	Size 30	Size 33	Size 36	Size 39
X-Short	15	15	16	16
Short	15	15	16	16
Regular	16	16	17	17
Long	—	16	17	17
X-Long	—	—	18	18

NOTE: Female slide fastener lengths are coordinated with coat lengths and coat size.

3.6.1.2 Upper sleeve pocket slide fastener. The slide fastener for the coat pocket closure shall be in accordance with A-A-55634, Type I, Style 7. The slide fastener shall be plastic individual element Class 1, single slider, Size 5 with 100 pounds' minimum crosswise strength and closed bottom and top stops. The slider pull hole shall be large enough to accommodate thong (pull tab) specified in 3.6.1.3. Slide fastener length shall be a minimum of 6-1/2-inches with a minimum chain opening of 5-1/2-inches from top stop to top of slider set upon bottom stop.

3.6.1.3 Slide fastener thongs. The slide fastener thong (pull tab) for the coat front and the upper sleeve pocket shall be a tape 3/8-inch wide conforming to Type III of MIL-DTL-5038. The thong shall finish 2 ($\pm 1/8$) inches in length when folded. To prevent raveling, the ends of the tape shall be either heat cut or enclosed by folding inward. The thong shall be placed through the pull tab (top pull-tab only for coat front) and secured with a vertical bar-tack.

3.6.2 Tape. The nylon tape to cover the identification friend or foe (IFF) material and FR identification marker (Type III coat only) shall be 1-inch wide conforming to Type III of MIL-DTL-5038. The ends of the tape shall be heat cut to prevent raveling.

3.6.3 Fastener tape, hook and loop. The hook fastener tape shall conform to Type II, Class 1 or Class 4 of A-A-55126. The loop fastener tape shall conform to Class 1 or Class 4 of A-A-55126. The widths shall be as specified for each application throughout this specification. The fastener tape, hook and loop, shall be consistent in manufacturer within a garment.

3.6.3.1 Fastener tape, hook and loop use. The use of hook and loop with and without selvage within a garment is allowed (does not need to be consistent within the garment). Hook and loop without selvage shall be heat slit along edges by hook and loop manufacturer only and shall not fray and shall meet the requirements of A-A-55126.

3.6.4 Identification friend or foe (IFF) material. The IFF material shall conform to Type I of CO-PD-06-05.

3.6.5 Thread (Type I only, all styles and classes). The thread for seaming and stitching for the Type I coat shall conform to Table IIA. All thread shall be non-staining and the requirements in each Commercial Item Description (CID) shall apply.

TABLE IIA. Thread requirements, Type I Coat only.

Component area	Thread specification	Needle thread (Tex size) <u>1/</u>	Bobbin/ Looper thread (Tex size) <u>1/</u>
All seaming, stitching and bar-tacking	A-A-50199, Type I	46-60	46-60
Button attachment	A-A-50199, Type I	71-105	71-105
Overedge stitching (raw edges)	A-A-50199, Type I	21-24	21-24

1/ Needle & Bobbin/Looper shall use same Tex size thread

3.6.6 Thread (Type III only, all styles and classes). The thread for seaming and stitching of the Type III Flame Resistant coat shall be as specified in Table IIB. All thread shall be non-staining and the requirements in each CID shall apply.

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TABLE IIB. Thread requirements, Type III Coat only.

Component area	Thread specification	Needle thread (Tex size) <u>1/</u>	Bobbin/ Looper thread (Tex size) <u>1/</u>
All seaming except small parts	A-A-55195, Type II A-A-55217, Type I	59 50-60	59 50-60
Safety stitch with top stitch, small parts, (hook/loop, pockets, flaps, collar, front placket, eyelet, top stitching, cuffs, tabs, and hems), IFF material & tab cover, identification marker, labels and slide fastener	A-A-55195, Type I A-A-55195, Type II A-A-55217, Type I	59 20 50-60	59 20 50-60
Overedge/Serge for portions of raw edge cover	A-A-55195, Type II A-A-55217, Type I	14 24-27	14 24-27
Button attachment	A-A-55195, Type I A-A-55195, Type II A-A-55217, Type I	59 39 50-60	59 39 50-60

1/ Needle & Bobbin/Looper shall use same Tex size thread.

3.6.7 Gimp. The cotton gimp for reinforcing buttonholes shall conform to A-A-50198, soft or glazed finish, Tex Size 180 or 210.

3.6.8 Buttons. Buttons shall be dull finish, four (4) holes, 30 ligne conforming to A-A-59994, Type I, Class 1, Style 26. When attached to the coat, the button and thread shall withstand a pull/break of 40 pounds (minimum) when tested as specified in 4.4.2.

3.6.9 Integrated Patch Kit, (IPK) (Types II and III only, all styles and classes). The IPK shall conform to the requirements of GL-PD-10-08. OCP uniforms shall use Class 3, Size R.

3.7 Construction (all types, styles and classes). The construction for coats shall be made in accordance with paragraphs 3.7.1 - 3.7.13. Construction is for all types, styles and classes unless otherwise noted. All garment material edges shall be clean finished:-turned-in, turned-under, or serged, unless otherwise indicated. All components with a grain line shall follow the grain line of the basic garment material or as indicated on pattern.

3.7.1 Fastener tape (hook and loop). All widths of hook and loop tape shall be sewn 1/8-inch to 3/16-inch from bound selvage (for fastener tape with selvage) or from tape edge (for fastener tape without selvage) to prevent needle cutting along edges, stitching runoffs or improper fit into automatic sewing equipment. To prevent raveling on fastener tape with selvage, do not sew directly on the selvage. The use of fastener tape that is slit, has split edges, or any splicing of fastener tape is not permitted. Under no circumstances shall any fastener tape be re-stitched for repair purposes. New tape shall be used for repairs to prevent needle cutting, thus offering maximum field life. All fastener tape may be sewn through all layers on coat as indicated on the figures, (see patterns for placement). Tolerance for all lengths shall be ($\pm 1/8$) inch.

3.7.2 Collar. The collar (see figure 3) shall be interlined with a fusible as specified in 3.4.5.

3.7.3 Front closure. The front closure is a (double slider) slide fastener with a secondary hook and loop tape closure (see figure 1). The secondary closure consists of three (3) pairs of hook and loop fastener tape. The hook portion is on the underside of the front overlapping facing (left side) and is additionally stitched with a box-x stitch. The loop portion is stitched to the front side of the under facing (right side) and is additionally stitched with a box-x stitch and coincides with the hook. The hook and loop fasteners for the front closure shall be 1-inch wide by 1-1/2-inches in length. See pattern for placement.

3.7.3.1 Front facing. As an option, the overlapping facing may be fused (see Tables IVA and IVB).

3.7.4 Upper sleeve pockets. Both upper sleeve pockets shall have a slide fastener.

3.7.4.1 Upper sleeve pocket. The sleeve pocket shall have a bellows at front, back and bottom with a slide fastener opening and eyelet at the bottom right of bellow. The pocket shall finish 4-1/2 ($\pm 3/16$) inches in width and 7-1/4 ($\pm 3/16$) inches in length. Each pocket shall have a 4-inch wide by 6-1/2-inch cut length loop fastener tape sewn on all sides, positioned 3/8-inch from bottom and top of pocket and centered side to side. The loop tape shall be additionally stitched with a crisscrossed-X pattern of stitching (see figure 4). See pattern for pocket loop fastener tape and eyelet placement. As an alternate, the stitching at the top of the pocket for closure shall stitch down the pocket bellows no more than 3/4-inch and shall have a vertical bar-tack starting at 1/4-inch from top of pocket and measuring 1/2-inch.

3.7.4.2 Upper sleeve pocket slide fastener. The slide fastener shall be on the forward side of the pocket (as worn) and shall be 6-1/2-inches in length. The slide fastener shall close from bottom to top and provide a minimum opening of 5-1/2-inches.

3.7.4.3 Eyelets. The sewn-in eyelets for the sleeve pocket bellows shall have a 1/4-inch ($\pm 1/16$) diameter finished opening.

3.7.4.4 Pencil pocket. The left sleeve shall have a 2-channel pencil pocket above the sleeve cuff. The pocket shall be 2-3/8 ($\pm 1/8$) inches wide and have a 3/4-inch double turned cleaned finished hem (see figure 1). The pocket shall have two (2) evenly spaced channels (permitted variation within 1/8-inch). See pattern for placement.

3.7.5 Sleeve cuff. The sleeve cuff shall be as specified in the pattern. The main body of the sleeve cuff shall have three (3) buttonholes spaced as per pattern. The sleeve cuff shall have a pointed adjustable tab with one (1) button sewn to the underside for closure adjustment (see figures 1 and 2). The sleeve tabs shall be 2-1/8 ($\pm 1/8$) inches wide by 3-1/8 ($\pm 1/8$) in length for all sizes.

3.7.5.1 Buttonholes. The buttonholes shall be eyelet-end tapered bar type (eyelet end toward the cuff edge worked over gimp for the cuff with not less than four (4) tacking stitches at bar end catching the gimp ends (not counting the crossover stitch). The purling shall be on the inside surface. The cut lengths shall be 3/4 to 7/8-inch. The buttonholes shall be clean cut with the stitching securely caught in fabric.

3.7.6 Elbow reinforcement. The coat shall have an elbow reinforcement patch on each sleeve, stitched down on all four (4) sides. See pattern for placement.

3.7.7 Chest pockets and flaps. There shall be two (2) chest pockets with flaps, one (1) on each chest side.

3.7.7.1 Front chest pockets. The chest pockets shall be angled downward/inward toward the front placket facing (see figure 1). The pocket shall finish 6-3/4 ($\pm 1/8$) inches in width and have a pocket opening of 6-3/8 ($\pm 1/8$) inches between bar-tacks. See Table VI for bar-tack/back-tack requirements. Chest pocket and body of coat grainline shall match. Each pocket shall have a piece of loop fastener tape, 5/8-inch wide by 6-3/4-inches in cut length, sewn onto it. See pattern for loop fastener tape placement.

3.7.7.1.1 Front chest pocket depth (Style A. Unisex only, all types and classes). The finished depth of each pocket for sizes X-Small and Small shall be 3-3/4 (+1/8, -0) inches, Medium, Large, X-Large, and XX-Large shall be 5-1/4 (+1/8, -0) inches.

3.7.7.1.2 Front chest pocket depth (Style B. Female only, all types and classes). The finished depth of each pocket for sizes 30 and 33 shall be 3-3/4 (+1/8, -0) inches, for size 36 shall be 4-3/4 (+1/8, -0) and for size 39 shall be 5-1/4 (+1/8, -0) inches.

3.7.7.2 Chest pocket flaps. The chest pocket flaps shall finish 1-1/2 ($\pm 1/8$) inches in width and be of sufficient length to cover the top of the pocket. The top of the folded finished pocket flaps shall finish 1/4-inch from the folded edge of pocket top (see pattern for placement). The underside of each chest pocket flap shall have a piece of hook fastener tape, 5/8-inch wide by 6-3/4-inches in cut length, sewn onto it for pocket closure. The stitching shall be through the hook tape and both layers of pocket flap (see figure 1). Chest pocket flap and body of coat grainline shall match.

3.7.8 Coat hem. The coat hem shall finish 5/8 ($\pm 1/8$) inch wide, double turned and clean finished.

3.7.9 Name tape and Military Service tape. Above each chest pocket flap there shall be a piece of loop fastener tape 1-inch by 5-1/4-inches in cut length, sewn on to accommodate the name tape and Military Service tape. The loop tape shall be placed horizontal and be 1/8-inch (+1/8, -0) above the top corner of the pocket flap (see figure 1). See pattern for loop fastener tape placement. Both loop tapes shall be in horizontal alignment with each other when coat is zipped.

3.7.10 Identification Friend or Foe (IFF) configuration. The IFF material shall be on both sleeves. A 1-inch width loop fastener tape finishing 3-1/4-inches in length shall be stitched onto the sleeve base material. The loop fastener tape shall be stitched onto the sleeve base material 1-inch from the front of the pocket and 3/4-inch from the back of the pocket. A 1-inch width nylon tape finishing 1-7/8 ($\pm 1/16$) inches in length shall have a 1-inch hook fastener tape finishing 1/2-inch in length and sewn onto the nylon tape. The nylon tape shall be of sufficient length to cover the IFF material when the hook is engaged. The IFF material shall be centered on the loop tape. See IFF webbing template (Table IVA and Table IVB) and pattern for placement. The IFF material shall be in accordance with 3.7.10.1.

3.7.10.1 Identification Friend or Foe (IFF) material. The IFF material as specified in 3.6.4 shall finish 3/4-inch wide and 3/4 ($\pm 1/16$) inch in cut length.

3.7.11 Rank patch. The rank patch shall be a piece of loop fastener tape, 2-inches wide by 2-inches in cut length. See pattern for placement.

3.7.12 Identification FR marker (Type III only, all styles and classes). The Type III coat shall have a tape FR identification marker (see figure 1) on the left sleeve cuff as worn (see pattern for placement) and shall be visible from the outside when worn. The tape marker shall be clean finished, or heat sealed, 1 ($\pm 1/8$) - inch in length. The finished tape identification marker shall be box stitched as specified in Table V. The thread shall be in accordance with the requirements for the Type III coat (see 3.6.6).

3.7.13 Integrated Patch Kit (IPK) placement (Type III only, all classes and styles). The Type III coat shall have an IPK placed into the finished right upper sleeve pocket, as worn. The IPK shall be placed into the pocket after garment treatment with the longest dimension vertical and shall lie flat after placement in pocket. The pocket slide fastener shall be engaged to prevent IPK from falling out.

3.8 Labels (all types, styles and classes). Labels are for all types, styles and classes unless otherwise noted. All garments shall have a size label and a combination identification/care label sewn or stamped into the coat. All garments shall have a barcode hang tag. Class 2 and Class 3 coats shall have an additional insect protection/identification/care label sewn or stamped into the coat and a hang tag. The printing for all labels shall be black. The font size for the inscription of the size label shall be 10 points. The inscription shall have a minimum font size of 8 points for identification/care label and insect protection/identification/care label only. Inscription shall be legible. Sewn in labels and printing and/or stamping shall last the expected life of the coat.

3.8.1 Size label. The size label shall conform to Type VI, Class 2 of MIL-DTL-32075 and shall be sewn on the inside center back approximately 1/2-inch below the neckline. The label shall be sewn on all four (4) sides and the stitching shall not cover the printing. The color of the size labels for the Type I coat shall be white or approximate the ground shade of the basic fabric and for the Type III coat the color of the size label shall be Urban Gray 501. As an alternate, may use a stamp at the bottom of the neckline. The color base of stamping for the Type I coat shall be white, and Urban Gray base for Type III coat with black letters. The size label shall include the information in Table IIIA and Table IIIB for the applicable size:

TABLE IIIA. Style A. Unisex size label.

X-Small - XX-Short Height: 55 to 59 in. Chest: 29 to 33 in. NSN No. NATO Size: 4050/7484	X-Small - X-Short Height: 59 to 63 in. Chest: 29 to 33 in. NSN No. NATO Size: 5060/7484	X-Small - Short Height: 63 to 67 in. Chest: 29 to 33 in. NSN No. NATO Size: 6070/7484
X-Small - Regular Height: 67 to 71 in. Chest: 29 to 33 in. NSN No. NATO Size: 7080/7484	X-Small - Long Height: 71 to 75 in. Chest: 29 to 33 in. NSN No. NATO Size: 8090/7484	X-Small - X-Long Height: 75 to 79 in. Chest: 29 to 33 in. NSN No. NATO Size: 9000/7484
X-Small – XX-Long Height: 79 to 83 in. Chest: 29-33 in. NSN No. NATO Size: 0010/7484	Small – XX-Short Height: 55 to 59 in. Chest: 33 to 37 in. NSN No. NATO Size: 4050/8494	Small – X-Short Height: 59 to 63 in. Chest: 33 to 37 in. NSN No. NATO Size: 5060/8494
Small – Short Height: 63 to 67 in. Chest: 33 to 37 in. NSN No. NATO Size: 6070/8494	Small – Regular Height: 67 to 71 in. Chest: 33 to 37 in. NSN No. NATO Size: 7080/8494	Small – Long Height: 71 to 75 in. Chest: 33 to 37 in. NSN No. NATO Size: 8090/8494
Small – X-Long Height: 75 to 79 in. Chest: 33 to 37 in. NSN No. NATO Size: 9000/8494	Small – XX-Long Height: 79-83 in. Chest: 33 to 37 in. NSN No. NATO Size: 0010/8494	Medium – XX-Short Height: 55 to 59 in. Chest: 37 to 41 in. NSN No. NATO Size: 4050/9404
Medium – X-Short Height: 59 to 63 in. Chest: 37 to 41 in. NSN No. NATO Size: 5060/9404	Medium – Short Height: 63 to 67 in. Chest: 37 to 41 in. NSN No. NATO Size: 6070/9404	Medium – Regular Height: 67 to 71 in. Chest: 37 to 41 in. NSN No. NATO Size: 7080/9404
Medium – Long Height: 71 to 75 in. Chest: 37 to 41 in. NSN No. NATO Size: 8090/9404	Medium – X-Long Height: 75 to 79 in. Chest: 37 to 41 in. NSN No. NATO Size: 9000/9404	Medium – XX –Long Height: 79 to 83 in. Chest: 37 to 41 in. NSN No. NATO Size: 0010/9404
Large – XX-Short Height: 55 to 59 in. Chest: 41 to 45 in. NSN No. NATO Size: 4050/0414	Large – X-Short Height: 59 to 63 in. Chest: 41 to 45 in. NSN No. NATO Size: 5060/0414	Large – Short Height: 63 to 67 in. Chest: 41 to 45 in. NSN No. NATO Size: 6070/0414

TABLE IIIA. Style A. Unisex size label. - Continued

Large – Regular Height: 67 to 71 in. Chest: 41 to 45 in. NSN No. NATO Size: 7080/0414	Large – Long Height: 71 to 75 in. Chest: 41 to 45 in. NSN No. NATO Size: 8090/0414	Large – X-Long Height: 75 to 79 in. Chest: 41 to 45 in. NSN No. NATO Size: 9000/0414
Large- XX-Long Height: Above 79 in. Chest: 41 to 45 in. NSN No. NATO Size: 0010/0414	X-Large – XX-Short Height: 55 to 59 in. Chest: 45 to 49 in. NSN No. NATO Size: 4050/1424	X-Large – X-Short Height: 59 to 63 in. Chest: 45 to 49 in. NSN No. NATO Size: 5060/1424
X-Large – Short Height: 63 to 67 in. Chest: 45 to 49 in. NSN No. NATO Size: 6070/1424	X-Large – Regular Height: 67 to 71 in. Chest: 45 to 49 in. NSN No. NATO Size: 7080/1424	X-Large – Long Height: 71 to 75 in. Chest: 45 to 49 in. NSN No. NATO Size: 8090/1424
X-Large - X-Long Height: 75 to 79 in. Chest: 45 to 49 in. NSN No. NATO Size: 9000/1424	X-Large - XX-Long Height: 79 to 83 in. Chest: 45 to 49 in. NSN No. NATO Size: 0010/1424	XX-Large - Regular Height: 67 to 71 in. Chest: 49 to 53 in. NSN No. NATO Size: 7080/2435
XX-Large - Long Height: 71 to 75 in. Chest: 49 to 53 in. NSN No. NATO Size: 8090/2435	XX-Large - X-Long Height: 75 to 79 in. Chest: 49 to 53 in. NSN No. NATO Size: 9000/2435	XX-Large - XX-Long Height: 79 to 83 in. Chest: 49 to 53 in. NSN No. NATO Size: 0010/2435

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TABLE IIIB. Style B. Female size label.

30 – X Short Height: 54 to 58 in. Chest: 30 to 33 in. NSN No. NATO Size: 4050/7484	33 – X Short Height: 54 to 58 in. Chest: 33 to 36 in. NSN No. NATO Size: 4050/8494	36 – X Short Height: 54 to 58 in. Chest: 36 to 39 in. NSN No. NATO Size: 4050/9404	-----
30 – Short Height: 58 to 62 in. Chest: 30 to 33 in. NSN No. NATO Size: 5060/7484	33 – Short Height: 58 to 62 in. Chest: 33 to 36 in. NSN No. NATO Size: 5060/8494	36 – Short Height: 58 to 62 in. Chest: 36 to 39 in. NSN No. NATO Size: 5060/9404	39 – Short Height: 58 to 62 in. Chest: 39 to 42 in. NSN No. NATO Size: 5060/9404
30 – Regular Height: 62 to 66 in. Chest: 30 to 33 in. NSN No. NATO Size: 6070/7484	33 – Regular Height: 62 to 66 in. Chest: 33 to 36 in. NSN No. NATO Size: 6070/8494	36 – Regular Height: 62 to 66 in. Chest: 36 to 39 in. NSN No. NATO Size: 6070/9404	39 – Regular Height: 62 to 66 in. Chest: 39 to 42 in. NSN No. NATO Size: 6070/9404
-----	33 – Long Height: 66 to 70 in. Chest: 33 to 36 in. NSN No. NATO Size:7080/8494	36 – Long Height: 66 to 70 in. Chest: 36 to 39 in. NSN No. NATO Size: 7080/9404	39 – Long Height: 66 to 70 in. Chest: 39 to 42 in. NSN No. NATO Size: 7080/9404
-----	-----	36 – X Long Height: 70 to 74 in. Chest: 36 to 39 in. NSN No. NATO Size: 8090/9404	39 – X Long Height: 70 to 74 in. Chest: 39 to 42 in. NSN No. NATO Size: 8090/9404

3.8.2 Identification and care label (all types, styles and classes). The combination identification/care label shall conform to Type VI, Class 15 of MIL-DTL-32075 and shall be stitched on inside of coat under the right chest pocket (as worn) vertically or parallel with the pocket angle with the top part of the label facing the top of the coat. The label shall be stitched on all four (4) sides. The stitching shall not penetrate the printing and shall not be visible on coat front. The color of the combination identification and care label shall be white or approximate the ground shade of the basic fabric, 3.4.1 and 3.4.3. As an alternate, may use a stamp at the bottom of the right front panel. The color base of stamping shall be white with black letters.

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3.8.2.1 Identification and care label (Type I Coat only, all styles and classes). The Type I label shall include the following information:

Coat, Advanced Combat Uniform - Unisex or Coat, Advanced Combat Uniform – Female Fiber Content: Contractor Name: Lot Number <u>1</u>/
<u>USE AND CARE</u> <u>PRIOR TO LAUNDERING:</u> Empty pockets and remove patches. Close zipper and hook and loop fasteners. Turn inside out. Pre-treat stains with commercially available pre-treatments. <u>HOME LAUNDERING:</u> Use cold water detergent. Wash in cold water using permanent press cycle. Rinse in cold water. Tumble dry low. <u>WASHING BY HAND:</u> Use cold water detergent. Wash in cold water. Rinse completely. Never twist or wring dry. Hang dry on a rust-proof hanger. Do not hang dry in direct sunlight. <u>NOTE:</u> Wash garment separate from other garments. In military field operations, garment may be washed with other garments. <u>CAUTION:</u> DO NOT USE BLEACH, BLEACH ALTERNATIVES, FABRIC SOFTENER, OR STARCH. DO NOT DRY CLEAN OR COMMERCIALY HOT PRESS. DO NOT APPLY HEAT OR AN IRON TO ANY HOOK AND LOOP FASTENER. DO NOT REMOVE THIS LABEL

1/ Lot number shall be stamped with indelible black ink prior to shipment.

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3.8.2.2 Identification and care label, flame resistant (Type III Coat only, all styles and classes). The label for Type III shall include the following information:

	Coat, Advanced Combat Uniform - Unisex or Coat, Advanced Combat Uniform – Female FLAME RESISTANT Fiber Content: Contractor Name: Lot Number <u>1/</u> This product meets the manufacturing and performance testing requirements as specified by the Program Executive Office – Soldier
<u>USE AND CARE</u> <u>PRIOR TO LAUNDERING:</u> Empty pockets and remove patches. Close zipper and hook and loop fasteners. Turn inside out. Pre-treat stains with commercially available pre-treatments. <u>HOME LAUNDERING:</u> Use cold water detergent. Wash in cold water using permanent press cycle. Rinse in cold water. Tumble dry low. <u>WASHING BY HAND:</u> Use cold water detergent. Wash in cold water. Rinse completely. Never twist or wring dry. Hang dry on a rust-proof hanger. Do not hang dry in direct sunlight. <u>NOTE:</u> Wash garment separate from other garments. In military field operations, garment may be washed with other garments. <u>CAUTION:</u> DO NOT USE BLEACH, BLEACH ALTERNATIVES, FABRIC SOFTENER, OR STARCH. DO NOT DRY CLEAN OR COMMERCIALY HOT PRESS. DO NOT APPLY HEAT OR AN IRON TO ANY HOOK AND LOOP FASTENER. DO NOT REMOVE THIS LABEL THIS GARMENT IS FLAME RESISTANT	

1/ Lot number shall be stamped with indelible black ink prior to shipment.

3.8.3 Insect repellent label (Class 2 and 3 only, all types and styles). The insect repellent label shall conform to MIL-PRF-32659 and shall be stitched on inside of coat under the left chest pocket (as worn) vertically or parallel with the pocket angle with the top of the label facing the top of the coat. The label shall include both permanent insect repellent and brand labeling information; and shall comply with the approved EPA registration as specified in MIL-PRF-32659. The label shall be stitched on all four (4) sides. The stitching shall not penetrate the printing and shall not be visible on coat front. The color for the insect repellent label for Classes 2 and 3 and identification/care label shall be white or approximate the ground shade of the basic fabric, 3.4.1 and 3.4.3. As an alternate, may use a stamp at the bottom of the right front panel. The color base of stamping shall be white with black letters. The Class 2 and 3 insect repellent label shall be the approved EPA label (see example):

Insect Repellent Brand Name: INSECT REPELLENT APPAREL Refer to hangtag for more information Coat, Advanced Combat Uniform Contractor Name: EPA REG. NO.: EPA EST. NO.:								
- Do Not Dry Clean - Dry Cleaning removes active ingredient - Wash separate from other clothing - In military field operations, garment may be washed with other garments. - Do Not Re-treat - Dispose of garment in trash in accordance with DoD regulations Repels mosquitoes Repellency remains effective for 50 washings <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">ACTIVE INGREDIENT</td> <td style="width: 40%; text-align: right;">%W/W</td> </tr> <tr> <td>(Insert chemistry name).....</td> <td style="text-align: right;">(Insert percentage)%</td> </tr> <tr> <td>OTHER INGREDIENTS: (Garment).....</td> <td style="text-align: right;">(Insert percentage)%</td> </tr> <tr> <td>TOTAL.....</td> <td style="text-align: right;">100.00%</td> </tr> </table> It is a violation of Federal Law to use this product in a manner inconsistent with its labeling DO NOT REMOVE THIS LABEL	ACTIVE INGREDIENT	%W/W	(Insert chemistry name).....	(Insert percentage)%	OTHER INGREDIENTS: (Garment).....	(Insert percentage)%	TOTAL.....	100.00%
ACTIVE INGREDIENT	%W/W							
(Insert chemistry name).....	(Insert percentage)%							
OTHER INGREDIENTS: (Garment).....	(Insert percentage)%							
TOTAL.....	100.00%							

Insect repellent label (example) for Classes 2 and 3.

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3.8.4 Hang tag, Mosquito bite protection (Class 2 and 3 only, all types and styles). Each Class 2 and Class 3 coat shall have an individual paper tag attached to the garment conforming to MIL-PRF-32659. The color for the hang tag shall be white. The paper tag shall be Swift tacked at center back on inside collar joining seam. The tag shall provide additional Mosquito bite protection information in accordance with and as required by EPA registration and labeling. The hang tag shall be the approved EPA hang tag (see example).

Insect Repellent Brand Name: INSECT REPELLENT APPAREL								
Contractor Name: Contractor Address: EPA REG. NO.: EPA EST. NO.:								
- Do Not Dry Clean - Dry Cleaning removes active ingredient - Wash separate from other clothing - In military field operations, garment may be washed with other garments. - Do Not Re-treat - Dispose of garment in trash in accordance with DoD regulations - For protection of exposed skin, use in conjunction with a repellent registered for direct application to the skin. Repels mosquitoes Repellency remains effective for 50 washings <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">ACTIVE INGREDIENT</td> <td style="width: 40%; text-align: right;">%W/W</td> </tr> <tr> <td>(Insert chemistry name).....</td> <td style="text-align: right;">(Insert percentage)%</td> </tr> <tr> <td>OTHER INGREDIENTS: (Garment).....</td> <td style="text-align: right;">(Insert percentage)%</td> </tr> <tr> <td>TOTAL.....</td> <td style="text-align: right;">100.00%</td> </tr> </table> It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Retain hangtag for future reference on proper handling of this garment. THIS TAG NOT TO BE REMOVED EXCEPT BY CUSTOMER	ACTIVE INGREDIENT	%W/W	(Insert chemistry name).....	(Insert percentage)%	OTHER INGREDIENTS: (Garment).....	(Insert percentage)%	TOTAL.....	100.00%
ACTIVE INGREDIENT	%W/W							
(Insert chemistry name).....	(Insert percentage)%							
OTHER INGREDIENTS: (Garment).....	(Insert percentage)%							
TOTAL.....	100.00%							

Insect repellent hang tag (example) for Classes 2 and 3.

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3.8.5 Barcode hang tag (all types, styles and classes). Each coat shall have a white paper barcode hang tag conforming to Type VIII, Class 17 of MIL-DTL-32075. The hang tag shall be Swift tacked at center back on inside collar joining seam and shall be completely visible on the coat when it is folded and/or packaged as specified and so it causes no damage to the coat. The bar coding element shall be a 13 digit National Stock Number (NSN). There shall be a 12 digit Universal Product Code (UPC) number assigned for all NSNs by the contracting activity. The initials "UPC" must appear beneath the code.

NOTE: The hang tag for insect protection and barcode may be applied jointly with the use of one (1) Swift tack.

3.9 Figures. Figures are furnished for informational purposes only. To the extent of any inconsistencies between the written document and the figures, the written document shall govern.

3.10 List of pattern parts. The Government shall furnish patterns, which show directional line markings for proper cutting and assembly and are to be used as a guide for cutting contractor's working patterns. The Government patterns provide a seam allowance of 1/2-inch for side seams, shoulder seams, and sleeve seams, 3/8-inch allowance for collar and all other seams, except where otherwise specified, and 1/4-inch allowance for pocket flaps. Pockets, pocket flaps, pencil pocket, elbow patches, cuffs, collar, slide fastener, patch loop tape, other hook and loop fastener tape, and bar-tacks shall be located in accordance with marks on patterns and table references. Minor modifications to the pattern are permitted where necessary to accommodate manufacture's processes to include garment treatments and use of automatic equipment. These modifications shall not alter the final design, serviceability, appearance, or final finished measurements. Table IVA and Table IVB pattern list is provided to ensure that the pattern set is complete for all types and styles of coats (see 6.2).

TABLE IVA. Style A. Unisex list of pattern parts.

Material	Nomenclature	Pattern Abbreviation	Cut Number
Basic Material	Back	PD1404A-BACK	1
	Side Back	PD1404A-SIDE_BACK	2
	Left Front	PD1404A-FRONT_LFT	1
	Right Front	PD1404A-FRONT_RT	1
	Top Sleeve	PD1404A-TOP_SLEEVE	2
	Under Sleeve	PD1404A-UNDR_SLEEVE	2
	Collar	PD1404A-COLLAR	2
	Elbow Patch	PD1404A-ELBOW_PATCH	2
	Sleeve Pocket	PD1404A-SLEEVE_PCKT	2
	Sleeve Pocket Zipper Facing	PD1404A-SLV_PKT_ZIP	2
	Right Front Chest Pocket	PD1404A-FT_CHST_PKR	1
	Left Front Chest Pocket	PD1404A-FT_CHST_PKL	1
	Right Front Chest Pocket Flap	PD1404A-FLP_CHSTPKR	1
	Left Front Chest Pocket Flap	PD1404A-FLP_CHSTPKL	1

TABLE IVA. Style A. Unisex list of pattern parts.- Continued

Material	Nomenclature	Pattern Abbreviation	Cut Number
Basic Material - Continued	Cuff	PD1404A-CUFF	2
	Cuff Tab	PD1404A-CUFF_TAB	2
	Left Pen Pocket	PD1404A-LFT_PEN_PKT	1
Fusible	Front Facing Fusible (Optional)	PD1404A-FF_FUS-OPT	2
	Collar Fusible	PD1404A-COLLAR_FUSE	1
Templates	IFF Webbing Template	PD1404A-IFF_WEB_TEMP	0

TABLE IVB. Style B. Female list of pattern parts.

Material	Nomenclature	Pattern Abbreviation	Cut Number
Basic Material	Side Back	PD1404B-SIDE_BACK	2
	Left Front	PD1404B-FRONT_LFT	1
	Right Front	PD1404B-FRONT_RT	1
	Top Sleeve	PD1404B-TOP_SLEEVE	2
	Under Sleeve	PD1404B-UNDR_SLEEVE	2
	Collar	PD1404B-COLLAR	2
	Elbow Patch	PD1404B-ELBOW_PATCH	2
	Sleeve Pocket	PD1404B-SLEEVE_PCKT	2
	Sleeve Pocket Zipper Facing	PD1404B-SLV_PKT_ZIP	2
	Right Front Chest Pocket	PD1404B-FT_CHST_PKR	1
Basic Material - Continued	Left Front Chest Pocket	PD1404B-FT_CHST_PKL	1
	Right Front Chest Pocket Flap	PD1404B-FLP_CHSTPKR	1
	Left Front Chest Pocket Flap	PD1404B-FLP_CHSTPKL	1
	Cuff	PD1404B-CUFF	2
	Cuff Tab	PD1404B-CUFF_TAB	2
	Left Pen Pocket	PD1404B-LFT_PEN_PKT	1
Fusible	Front Facing Fusible (Optional)	PD1404B-FF_FUS-OPT	2
	Collar Fusible	PD1404B-COLLAR_FUSE	1
Templates	IFF Webbing Template	PD1404B-IFF_WEB_TEMP	0

3.11 Configuration. Each coat shall conform to design, appearance (see figures 1-5), the finished measurements in Tables VIIA and VIIB and the construction methods specified in 3.11.1 through 3.11.2, and Tables V and VI in order to maintain configuration compliance.

3.11.1 Seams and stitching. All seams shall be consistent and exhibit a uniform appearance and conform to the ASTM D6193 seam and stitch types listed in Table V. The backside of seams (inside garment) shall be flat with no protruding seam allowance to create irritation or discomfort. All material edges shall be clean finished: turned-in, turned-under, or serged. The garment shall have no raw edges including inside pockets. All pocket flaps shall be serged prior to setting. Needle and bobbin thread tension shall be balanced such that neither is too tight nor too loose relative to each other. The seams for all outside visible stitching shall be sewn with 11 ($\pm$ 1) stitches per inch. Overedge or pre-hemming shall be 10 ($\pm$ 2) stitches per inch. Buttons shall be attached with 16 stitches per button. Buttonholes shall be 54 ($\pm$ 2) stitches per inch including tack. All hook and loop tape shall be sewn with 10 ($\pm$ 2) stitches per inch. The IFF material shall be sewn with 8 ($\pm$ 1) stitches per inch. The sewn eyelets for the bellows pockets shall have a minimum of 16 stitches. The width of the bight of stitching shall not be less than 1/16-inch. The eyelet stitching shall have at least four (4) overlapping stitches with the purling on the outside. All stitches per inch and gauge requirements shall be met prior to any applicable garment treatments.

3.11.1.1 Repair of stitch.

3.11.1.2 Repairs of stitching. Repairs of stitching shall be as follows:

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

NOTE: When making the above repairs, the ends of the stitching are not required to be backstitched. The loose ends shall be trimmed with scissors. **Caution:** Pulling or breaking the loose ends is not allowed.

3.11.1.3 Repairs of type 401 stitching only. All repairs shall be in accordance with 3.11.1.1 and 3.11.1.2, 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 stitching Type 301.

3.11.2 Stitching for hook and loop tape. The hook and loop tape shall be sewn with the use of a straight stitch, box stitch or box-X stitch with special stitched corners as specified in Table V.

TABLE V. Seam and stitch types.

Seam placement	Seam type	Gauge	Stitch type
Side seams, back sleeve seams, set in sleeves, armhole, shoulder seams	LSc-2 or Ssa2-2 and LSq-3	3/16 to 1/4-inch gauge (double lap seam)	301 or 401
Bi-swing seam Inner seam	SSa-2	3/8 to 1/2-inch gauge	301 and 602
Outer seam (pleat) OR Alternate Inner seam	OSf-2 SSa-2	3/16 to 1/4-inch gauge 3/8 to 1/2-inch gauge	301 401 and 516 401
Outer seam (pleat)	OSf-2	3/16 to 1/4-inch gauge	
Top stitch pleat of bi-swing	OSf-2	Two (2) rows 3/16 to 1/4-inch gauge apart	301
Top stitching of pencil pocket, collar and front edge	OSf-1	1/16 to 1/8-inch from edge	301
Top stitching of sleeve cuff tabs	OSf-1	3/16 to 1/4-inch from folded edge	301
Upper sleeve pocket bellows, inside pleat	OSf-1	1/16 to 1/8-inch from edge	301
Upper sleeve pocket at both the front and back outer edges	Lsd-1	1/16 to 1/8-inch from edge	301
Upper sleeve pocket slide fastener	Efd-1	3/16-inch	503 or 504
Facing	-----	See pattern for placement of slide fastener teeth from edge	-----
Placement			
Attachment	SSak-2	Two (2) rows 1/8 to 1/4-inch apart	301
Attachment of pockets (When using automatic pocket setting equipment topstitching shall be 1/6, 1/8, or 3/16 gauge)	LSd-1	1/16 to 1/8-inch from edge	301
Sleeve pockets	Efd-1	3/16-inch	503 or 504

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TABLE V. Seam and stitch types. - Continued

Seam placement	Seam type	Gauge	Stitch type
Setting of chest pocket flaps			
Top stitch OR Top stitch	LSba-2 LSb1-2	Two (2) rows 3/16 to 1/4-inch apart 3/16 to 1/4-inch from serged edge, then turn flap burying raw edge and top stitch one (1) row 1/4 to 5/16-inches from turned edge	301 301
Pocket edge <u>stitching</u>	Ssa-1	3/16 to 5/16-inches from edge	502, 503 or 504
Attachment of elbow reinforcements	LSd-2	Two (2) rows 3/16 to 1/4-inch apart	301
Front slide fastener			
Placement	----- SSak-2	See pattern for placement of slide fastener teeth from front edge Two (2) rows 1/8 to 1/4-inch apart	----- 301
Bottom hemming	EFb-1	1/2 to 3/4-inch wide hem, double turned clean finished, stitching 1/16 to 1/8-inch from hem fold	301
Setting cuffs	LSd-1	1/16 to 1/8-inch from edge	301
Topstitch collar	SSa-1	1/16 to 1/8-inch from edge	301
Front closure hook and loop tape	LSbj-1	Box-X, 1/8 to 3/16-inch from selvage edge	301
Chest pocket flap hook tape	LSbj-1	Box, 1/8 to 3/16-inch from selvage edge	301
Name tape, U.S. Military Service tape, IFF, Rank tape and chest pocket loop tape	LSbj-1	Box, 1/8 to 3/16-inch from selvage edge	301
Glint material attachment to IFF loop tape	LSbj-1	Box, 1/8 to 3/16-inch from selvage edge (see IFF template)	301
Nylon tape attachment onto IFF loop tape	LSbj-1	1/16 to 1/8-inch from edge of nylon tape (see IFF pattern template)	301

TABLE V. Seam and stitch types. - Continued

Seam placement	Seam type	Gauge	Stitch type
Hook fastener tape attachment onto IFF tab nylon tape cover	LSbj-1	Box, 1/8 to 3/16-inch from selvage edge (see IFF pattern template)	301
FR identification marker to left sleeve cuff, visible from outside (Types II and III only)	LSbj-1	Box, 1/8 to 3/16-inch from selvage edge	301
Labels	LSbj-1	1/8 to 3/16-inch from edge	301

3.11.3 Bar-tacks and back-tacks. To maintain durability and functionality, bar-tacks shall be placed as specified in Table VI. Bar-tacks shall be 1/8 to 3/16-inch wide. Nominal lengths and stitches per tack shall also be as specified in Table VI. Back-tacks shall have two (2) to four (4) rows of stitching.

TABLE VI. Bar-tack and back-tack placement.

Bar-tack or back-tack placement	Size of tack (inches)	Stitches per tack <u>1/</u>	# of Bar-tacks per garment	# of Back-tacks per garment	Horizontal	Vertical
Front chest pocket flaps (superimposed on topstitching)						
a. Top (left and right)	5/8	36	4	----	X	----
Chest pockets and flaps						
a. Loop tape (pocket)	5/8	36	4 or 4		----	X
b. Hook tape (flap)	5/8	36	4 or 4		----	X
Lower sleeve cuff tab at ends	1/2	30	4	----	----	X
Pencil pocket						
a. Top (left, center, right)	5/8	36	3	----	----	X
b. Bottom (center)	5/8	36	1	----	----	X
Upper sleeve pocket - through all layers						
a. Top front	5/8	36	2	----	X	----
b. Bottom front	5/8	36	2	----	X	----
c. Top back (opposite slide fastener)	5/8	36	2	----	X	----

TABLE VI. Bar-tack and back-tack placement. - Continued

Bar-tack or back-tack placement	Size of tack (inches)	Stitches per tack <u>1/</u>	# of Bar-tacks per garment	# of Back-tacks per garment	Horizontal	Vertical
Alternate Upper sleeve pocket - through all layers						
a. Top front	1/2	30	2	----	X	----
b. Bottom front	1/2	30	2	----	X	----
c. Top back (opposite slide fastener)	1/2	30	2	----	X	----
d. Top back (end of closure stitching)	1/2	30	2	----	----	X
Upper sleeve pockets						
a. Loop tape <u>2/</u>	5/8	36	8 or 8		X	----
Front slide fastener tape						
a. Top	5/8	36	2	----	----	X
b. Bottom	5/8	36	2	----	----	X
All slide fastener thongs at center (front and upper sleeve pockets)	5/8	36	3	----	----	X
Bi-swing (locations as indicated on patterns)						
a. Upper	5/8	36	2	----	X	----
b. Lower	5/8	36	2	----	X	----
End of cuff (underarm seam)	5/8	36	2	----	X	----
Name Tape loop tapes <u>2/</u>	----	----	----	4	----	X
U.S. Military Service loop tapes <u>2/</u>	----	----	----	4	----	X
Rank loop Tape <u>2/</u>	----	----	----	4	----	X
Front bottom hem stitch line at center front (see figure 1)	1/2 - 5/8	30 - 36	1 or 1		X	----
Front placket top stitch bottom (see figure 1)	1/2 - 5/8	30 - 36	1 or 1		----	X

1/ The tolerance shall be (± 2) stitches per tack except where range is given.

2/ The bar-tack/back-tack shall catch both loop and basic material, as long as it does not interfere with the garment construction/feature or if there is interference, the bar-tack or back-tack shall be set on loop tape and loop tape selvage. When back-tack is used the number of stitches onto the basic material shall be no less than two (2) stitches. See figure 5 for techniques.

3.12 Measurements. All measurements referenced in this document, except for end item measurements specified in 3.12.1 shall be made prior to garment treatment if applicable.

3.12.1 Finished measurements (Style A and B, all types and classes). The coat shall conform to the finished measurements specified in Table VIIA and Table VIIB.

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TABLE VIIA. Finished measurements (inches) Style A (Unisex).

Size	Back Length, <u>1/</u>						Half Chest, <u>2/</u>						Sleeve Length, <u>3/</u>					
	XS	S	M	L	XL	2XL	XS	S	M	L	XL	2XL	XS	S	M	L	XL	2XL
XX-Short (XXS)	25	25 -1/2	26	26 -1/2	27	----	20 -1/4	22 -1/4	24 -1/4	26 -1/4	28 -1/4	----	19 -3/8	19 -5/8	19 -7/8	20 -1/8	20 -3/8	----
X-Short (XS)	26	26 -1/2	27	27 -1/2	28	----	20 -1/4	22 -1/4	24 -1/4	26 -1/4	28 -1/4	----	20 -3/8	20 -5/8	20 -7/8	21 -1/8	21 -3/8	----
Short (S)	27	27 -1/2	28	27 -1/2	29	----	20 -1/4	22 -1/4	24 -1/4	26 -1/4	28 -1/4	----	21 -3/8	21 -5/8	21 -7/8	22 -1/8	23 -3/8	----
Regular (R)	28 -1/2	29	29 -1/2	30	30 -1/2	31	20 -1/4	22 -1/4	24 -1/4	26 -1/4	28 -1/4	30 -1/4	22 -3/8	22 -5/8	22 -7/8	23 -1/8	23 -3/8	23 -5/8
Long (L)	29 -7/8	30 -3/8	30 -7/8	31 -3/8	31 -7/8	32 -3/8	20 -1/4	22 -1/4	24 -1/4	26 -1/4	28 -1/4	30 -1/4	23 -3/8	23 -5/8	23 -7/8	24 -1/8	24 -3/8	24 -5/8
X-Long (XL)	31 -1/4	31 -3/4	32 -1/4	32 -3/4	33 -1/4	33 -3/4	20 -1/4	22 -1/4	24 -1/4	26 -1/4	28 -1/4	30 -1/4	24 -3/8	24 -5/8	24 -7/8	25 -1/8	25 -3/8	25 -5/8
XX-Long (XXL)	32 -5/8	33 -1/8	33 -5/8	34 -1/8	34 -5/8	35 -1/8	20 -1/4	22 -1/4	24 -1/4	26 -1/4	28 -1/4	30 -1/4	25 -3/8	25 -5/8	25 -7/8	26 -1/8	26 -3/8	26 -5/8
TOL	$\pm 3/4$						$\pm 1/2$						$\pm 3/4$					

1/, 2/, 3/ - See 3.12.1.1 for methods of measurement.

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TABLE VIIB. Finished measurements (inches) Style B (Female).

Size	Back Length, <u>1/</u>				Half Chest, <u>2/</u>				Sleeve Length, <u>3/</u>			
	30	33	36	39	30	33	36	39	30	33	36	39
X-Short	23-1/2	24	24-1/2	25	19-1/2	21	22-1/2	24	21	21-1/4	21-1/2	21-3/4
Short	24-1/2	25	25-1/2	26	19-1/2	21	22-1/2	24	21-1/2	21-3/4	22	22-1/4
Regular	25-1/2	26	26-1/2	27	19-1/2	21	22-1/2	24	22	22-1/4	22-1/2	22-3/4
Long	26-1/2	27	27-1/2	28	19-1/2	21	22-1/2	24	22-1/2	22-3/4	23	23-1/4
X-Long	27-1/2	28	28-1/2	29	19-1/2	21	22-1/2	24	23	23-1/4	23-1/2	23-3/4
TOL	± 3/4				± 1/2				± 3/4			

TABLE VIIB. Finished measurements (inches) Style B (Female).- Continued

Size	Shoulder, <u>4/</u>				Half Sweep, <u>5/</u>				Half Sleeve Opening, <u>6/</u>			
	30	33	36	39	30	33	36	39	30	33	36	39
X-Short	15	15-3/4	16-1/2	17-1/4	21	22-1/2	24	25-1/2	5-3/4	6	6-1/4	6-1/2
Short	15	15-3/4	16-1/2	17-1/4	21	22-1/2	24	25-1/2	5-3/4	6	6-1/4	6-1/2
Regular	15	15-3/4	16-1/2	17-1/4	21	22-1/2	24	25-1/2	5-3/4	6	6-1/4	6-1/2
Long	15	15-3/4	16-1/2	17-1/4	21	22-1/2	24	25-1/2	5-3/4	6	6-1/4	6-1/2
X-Long	15	15-3/4	16-1/2	17-1/4	21	22-1/2	24	25-1/2	5-3/4	6	6-1/4	6-1/2
TOL	± 1/2				± 1/2				± 1/2			

1/, 2/, 3/, 4/, 5/, 6/ - See 3.12.1.1 for methods of measurement.

3.12.1.1 Methods of measurement. The measurements in Table VIIA and Table VIIB shall be taken in accordance with the footnotes listed below Table VIIB and shall be zipped at the front placket and placed flat upon a table for measuring.

1/ Back length - Measure along center back from collar joining seam to bottom edge of coat.

2/ Half chest - With slide fastener closed, hook and loop fasteners attached, and bi-swing facing up and folded in, lay coat flat on table and measure in line with arm pit of armhole from outside folded edge to opposite outside folded edge.

3/ Sleeve length - Measure along underarm seam from sleeve joining seam to bottom of sleeve (including cuff).

4/ Shoulder - Measure armhole seam to armhole seam at shoulder joining seam.

5/ Half sweep - With slide fastener closed, hook and loop fasteners attached, lay coat flat on table and measure across bottom outside folded edge to opposite outside folded edge.

6/ Half sleeve opening - With cuff unbuttoned measure along edge of cuff from outside folded edge to opposite outside folded edge

3.13 Toxicity. Unless otherwise specified in the contract or procurement documents, the finished coat shall not present a health hazard and shall show compatibility with prolonged, direct skin contact when tested as specified in 4.5.1.

3.14 Workmanship. After completion of the final assembly, the coat shall be thoroughly cleaned and all thread scraps, lint and foreign matter shall be removed, and all closures engaged prior to insect repellent treatment. The coat shall not contain any fabric defects. The coat shall be uniform in quality and shall be free from irregularities or defects which could adversely affect performance, reliability, or durability. The coat shall conform to the quality established by this specification.

4. VERIFICATION

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

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

4.2 First article inspection. First article, submitted in accordance with 3.1.1, shall be inspected for compliance with design, materials, construction, toxicity, and workmanship. In addition, the first article inspection shall be examined for compliance with the dimensional requirements as specified in 3.12.1 and tested for the characteristics as specified in 4.4.2. The presence of excessive defects, as defined in the contract or purchase order, or failure to pass any test shall be cause for rejection of the first article. The sample size shall be specified in the procurement document (see 6.2). The sample unit shall be one (1) coat, and the lot size shall be expressed in units of coats.

4.3 Conformance inspection. Conformance inspection shall include examination to meet the dimensional requirements as specified in 3.12.1, visual inspection to meet the requirements 4.4.1 and verification testing defined in 4.4.2. Sampling for inspection shall be performed in accordance with ASQ/ANSI Z1.4, as defined by contract, except where otherwise indicated.

4.4 Component and end item inspections. In accordance with 4.3, components and end items shall be tested in accordance with all the requirements of referenced documents unless otherwise excluded, amended, modified or qualified in this document or applicable procurement documents. The Government reserves the right to inspect and test all components and end items to determine conformance to requirements.

4.4.1 End item visual examination. Each coat shall be subjected to visual examination. In accordance with Table VIII, fabric and garment defects shall be scored which are clearly noticeable at normal viewing distance (3-feet) and which affect the serviceability or appearance of the garment. Material defects are defined in ASTM D3990. If needed, closer inspection will be performed to verify compliance to specification requirements. Shade shall be evaluated at a distance of 3-feet.

TABLE VIII. Coat visual examination.

Examination	Defect	Classification	
		Major	Minor
Material	Incorrect, not as specified (see 3.4.1 and 3.4.3)	101	
	Hole, cut, tear, smash, burn, needle chew, exposed drill hole, thin place, dye streak, color not as specified, misweave, visible mend or otherwise damaged	102	
	Knots greater than Fabric Defect Scale Level C (See 6.8)		201
	Slubs greater than Fabric Defect Scale Level D (See 6.8)		202
Fusible Interlining	Omitted or added where not specified Bubbling, delaminating, wrinkling, puckering, misplaced	103	203
Shade	Shade variation within part or between parts of coat, affecting appearance or serviceability	104	
Components	Component not in accordance to the specification	105	
Slide Fasteners	Omitted, twisted, distorted, damaged, puckered	106	
	Color or type not as specified		204
	Thong omitted or not as specified Not located in correct position.	107	205
Tape	Omitted or misplaced	108	
	Any tape distorted, full, tight, frayed, damaged or twisted		206
	Color or type not as specified		207
Fastener Tape - Hook and Loop	Misplaced, damage, frayed, spliced or omitted	109	
	Color or type not as specified		208
	Tape piece edges not cut straight (at approximately 90 degrees)		209

TABLE VIII. Coat visual examination. – Continued

Examination	Defect	Classification	
		Major	Minor
IFF Material	Omitted, damage, or frayed	110	
Thread/Gimp	Color or type not as specified		210
Buttons	Omitted, damaged or ragged	111	
	Not specified type, size or color		211
Patch Kit	Omitted	112	
	Not placed in correct pocket position		212
	Patch color, type or packaging not as specified		213
Labels, hangtags, Bar code/UPC/ HRI Codes	Omitted, illegible	113	
	Color or type not as specified		214
	Human readable interpretation (HRI) illegible	114	
Construction	Any construction part of the coat omitted (3.7.1 to 3.7.12)	115	
Hook and Loop Attachment	Twisted or distorted when closed	116	215
	Out of alignment causing bulge		
	Joining pieces out of alignment with each other by more than 1/4-inch	117	
	Not stitched to coat as specified	118	
	Stitching on tape selvage rather than hook or loop	119	
	Tape piece not securely stitched to coat cloth	120	
	Tape stitched less than 1/8-inch or more than 3/16-inch from edge	121	
Collar	Incorrect design not as specified in patterns, not specified width	122	
Front Closure	Hook and loop omitted, not secured, or incorrect placement	123	
	Length of coat fronts uneven by more than 1/4-inch at top or bottom when closed	124	
Sleeve Cuff	Incorrect design, grainline not as specified in patterns, not specified width	125	
	Sleeve lengths vary by more than 1/2-inch	126	
	Cuff and cuff tab out of alignment with bottom folded edge of sleeve hem by more than 1/4-inch	127	
Pocket and Flaps (all)	Pocket construction and openings not as specified	128	
	Pocket companions and openings not uniform in size by 1/4-inch	129	
	Pocket flaps or openings not as specified	130	
	Pocket flaps twisted, curled, or puckered, not stitched as specified or not well formed	131	
	Pocket flaps not completely covering pocket opening left to right, positioned or grain line not as specified	132	
	Pocket flap finished uneven from left to right more than 1/4-inch	133	

TABLE VIII. Coat visual examination. – Continued

Examination	Defect	Classification	
		Major	Minor
Upper Sleeve Pocket	Omitted or incorrect size	134	
	Incorrect placement of loop tape or IFF material	135	
Pencil Pocket	Omitted or incorrect size	136	
	Channels varying more than 1/8-inch in width		216
Chest Pockets	Omitted, incorrect size, or angle of pockets	137	
	Missing or incorrect placement of hook and loop	138	
Front name and U.S. Military Service loop tapes	Not in horizontal alignment or uneven by more than 1/4-inch	139	
Elbow reinforcement	Omitted, not attached as specified, opening - if applicable not as specified	140	
Coat Hem	Ends of hem not sewn closed, twisted, puckered, pleated, wavy, or distorted	141	
	Side seam lengths varying by more than 1/2-inch (prior to treatment)	142	
Bar-tacks, back-tacks	Omitted, misplaced, or improper size	143	
	Loose stitching, not specified size, incorrect number of stitches		217
Buttonholes, eyelets	Omitted, misplaced, or improper size	144	
	Buttonholes not in specified direction		218
	Buttonhole thread loose, purling on wrong side, not clean cut or securely caught in fabric	145	
	Alignment of buttonholes and buttons causing bulge, twist or distortion when engaged	146	
	Buttonholes or eyelet not cleanly cut to required size		219
Rank loop patch	Omitted or misplaced	147	
IFF tab cover	Incorrect tab design or IFF material placement	148	
FR Marker tape (Type III only)	Omitted, incorrect type or placement	149	
Labels/Hangtags/UPC/HRI Codes	Size, combination identification/care labels not placed correctly		220
	Hangtags/UPC labels not securely attached in correct location		221
	Barcode/UPC code not visible on folded, packaged item		222
	Any label or tag having incorrect printed content	150	
	Any label, hangtag, or barcode attachment causing damage to item	151	

TABLE VIII. Coat visual examination. – Continued

Examination	Defect	Classification	
		Major	Minor
Seams and Stitching	Open seams, puckered, distorted, wavy, twisted, or irregular	152	
	Loose or tight stitch tension		
	Less than 1/2-inch in length		223
	Greater than 1/2-inch in length	153	
	Missing stitches greater than 1/4-inch length	154	
	Missing stitches less than 1/4-inch length		224
	Edge or raised stitching sewn too close to the edge or needle chew resulting in damage to fabric over 1/4-inch in length	155	
	Seam allowance not as required by stitch type		225
	Visible raw edge on outside of coat (inside raw edge greater than 1-inch)	156	
	Stitching not as specified	157	
	Double needle intersecting seams staggered by more than 1/4-inch	158	
	Run off of stitching more than 1/2-inch for edge or raised stitching	159	
	Stitching caught in components or fabric causing unwanted permanent folds, pleats or fullness in the garment	160	
	Free floating stitching not secured in a seam or other stitching by less than 1/4-inch or ends of a continuous line of stitching not overlapped over 1/4-inch (except label stitching)	161	
	Stitching of seams incorrectly repaired	162	
Cleanness/ Workmanship	Spot/Stain affecting appearance or serviceability	163	
	Odor	164	
	Thread ends (more than three (3))		
	Between 1/4 to 1-1/2-inches		226
	Thread ends (more than three (3))		
	Over 1-1/2-inches	165	
	All closures on coat not engaged		227
	Internal repair tags, tickets or tape not removed from finished garment		228
Packaging	Any coat not packaged in accordance with contract or purchase order		229

4.4.2 End item testing. The finished coat shall be tested for the characteristics listed in Table IX. The methods of test shall be as specified in Table IX. All test reports shall contain the individual values utilized in expressing the final results. The testing requirements and test sampling plan shall be as specified in the contract and/or purchase order.

TABLE IX. End item testing (all types, styles and classes).

Characteristic	Requirement paragraph	Test method
% Mosquito bite protection (Class 2 and 3 only)	3.5.1	MIL-PRF-32659
Insect repellent content (Class 2 & 3 only)	3.5.2	MIL-PRF-32659
pH (Class 2 & 3 only)	3.5.3	AATCC TM81
Button pull/break (Class 2 and 3 prior to treatment)	3.6.8	ASTM D5034
Toxicity	3.13	4.5.1

4.5 Methods of inspection.

4.5.1 Toxicity test. When the toxicity requirement (see 3.13) can be demonstrated with historical use data on the finishing treatments used, toxicity testing may not be required (see 6.6 and 6.7).

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of material is to be performed by DoD or in-house personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

5.2 Insect repellent packaging (Class 2 and Class 3 only). Every roll/box containing insect repellent treated fabric/uniforms must be labeled according to MIL-PRF-32659.

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 coat is for wear by military personnel as a combat uniform in garrison and combat missions.

6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number and date of this specification.
- b. Type, style, class and sizes, required (see 1.2).
- c. The specific issue of individual documents referenced (see 2.2).
- d. When first article sample is required (see 3.1.1, 4.2 and 6.3).
- e. Camouflage pattern required (see 3.4.1 - 3.4.3).
- f. Target dose levels based on active ingredient for vector protection (3.5.2).
- g. Pattern required (see 3.10).
- h. When toxicity testing is required (see 3.13 and 4.5.1)
- i. Conformance inspection acceptance quality limits (see 4.3).
- j. Inspection conditions (see 4.4).
- k. Packaging requirements (see 5.1 and 5.2).

6.3 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of FAR 52.209-4. The first article should be a pre-production 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 the first article.

6.4 Standard sample. For access to samples and pattern drawings, address the contracting activity issuing the invitation for bids or request for proposal.

6.5 Pattern guide factors & measurement tables. Measurements in tables in 6.5.1 and 6.5.2 are dimensional measurements using the given stretch factor.

6.5.1 Stretch factor (Type I only). Length (X) x Width (Y) axis, 2.0% x 1.5%.

6.5.1.1 Style A. Unisex, Type I only stretch factor.

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Style A. Unisex, Type I only.

Size	XX-Short	X-Short	Short	Regular	Long	X-Long	XX-Long	Tol.
Back Length, <u>1</u>/								
X-Small	25-5/8	26-5/8	27-5/8	29-1/8	30-1/2	31-7/8	33-1/4	± 1/2
Small	26-1/8	27-1/8	28-1/8	29-5/8	31	32-3/8	33-3/4	
Medium	26-5/8	27-5/8	28-5/8	30-1/8	31-1/2	32-7/8	34-1/4	
Large	27-1/8	28-1/8	29-1/8	30-5/8	32	33-3/8	34-3/4	
X-Large	27-5/8	28-5/8	29-5/8	31-1/8	32-1/2	33-7/8	35-1/4	
XX-Large	-----	-----	-----	31-5/8	33	34-3/8	35-3/4	
Half chest, <u>2</u>/								
X-Small	20-3/4	20-3/4	20-3/4	20-3/4	20-3/4	20-3/4	20-3/4	± 1/2
Small	22-3/4	22-3/4	22-3/4	22-3/4	22-3/4	22-3/4	22-3/4	
Medium	24-3/4	24-3/4	24-3/4	24-3/4	24-3/4	24-3/4	24-3/4	
Large	26-3/4	26-3/4	26-3/4	26-3/4	26-3/4	26-3/4	26-3/4	
X-Large	28-3/4	28-3/4	28-3/4	28-3/4	28-3/4	28-3/4	28-3/4	
XX-Large	-----	-----	30-3/4	30-3/4	30-3/4	30-3/4	30-3/4	
Sleeve Length, <u>3</u>/								
X-Small	20	21	22	23	24	25	26	± 1/2
Small	20-1/4	21-1/4	22-1/4	23-1/4	24-1/4	25-1/4	26-1/4	
Medium	20-1/2	21-1/2	22-1/2	23-1/2	24-1/2	25-1/2	26-1/2	
Large	20-3/4	21-3/4	22-3/4	23-3/4	24-3/4	25-3/4	26-3/4	
X-Large	21	22	23	24	25	26	27	
XX-Large	-----	-----	-----	24-1/4	25-1/4	26-1/4	27-1/4	

1/, 2/, 3/ - See 3.12.1.1 for methods of measurement.

6.5.1.2 Style B. Female, Type I only stretch factor.Style B. Female, Type I only.

Size	30	33	36	39	Tol.
Back length, <u>1</u>/					
X-Short	24	24-1/2	25	25-1/2	± 1/2
Short	25	25-1/2	26	26-1/2	
Regular	26	26-1/2	27	27-1/2	
Long	27	27-1/2	28	28-1/2	
X-Long	28	28-1/2	29	29-1/2	
Half Chest, <u>2</u>/					
X-Short	20	21-1/2	23	24-1/2	± 1/2
Short	20	21-1/2	23	24-1/2	
Regular	20	21-1/2	23	24-1/2	
Long	20	21-1/2	23	24-1/2	
X-Long	20	21-1/2	23	24-1/2	

Style B. Female, Type I only. - Continued

Size	30	33	36	39	Tol.
Sleeve length, <u>3/</u>					
X-Short	21-1/2	21-3/4	22	22-1/4	± 1/2
Short	22	22-1/4	22-1/2	22-3/4	
Regular	22-1/2	22-3/4	23	23-1/4	
Long	23	23-1/4	23-1/2	23-3/4	
X-Long	23-1/2	23-3/4	24	24-1/4	
Shoulder, <u>4/</u>					
X-Short	15-3/8	16-1/8	16-7/8	17-5/8	± 1/2
Short	15-3/8	16-1/8	16-7/8	17-5/8	
Regular	15-3/8	16-1/8	16-7/8	17-5/8	
Long	15-3/8	16-1/8	16-7/8	17-5/8	
X-Long	15-3/8	16-1/8	16-7/8	17-5/8	
Half Sweep, <u>5/</u>					
X-Short	21-1/2	23	24-1/2	26	± 1/2
Short	21-1/2	23	24-1/2	26	
Regular	21-1/2	23	24-1/2	26	
Long	21-1/2	23	24-1/2	26	
X-Long	21-1/2	23	24-1/2	26	
Half Sleeve Opening, <u>6/</u>					
X-Short	5-7/8	6-1/8	6-3/8	6-5/8	± 1/2
Short	5-7/8	6-1/8	6-3/8	6-5/8	
Regular	5-7/8	6-1/8	6-3/8	6-5/8	
Long	5-7/8	6-1/8	6-3/8	6-5/8	
X-Long	5-7/8	6-1/8	6-3/8	6-5/8	

1/, 2/, 3/, 4/, 5/, 6/ - See 3.12.1.1 for methods of measurement.

6.5.2 Stretch factor (Type III only). Length (X) x Width (Y) axis, 3.0% x 1.5%.

6.5.2.1 Style A. Unisex, Type III only, stretch factor.

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Style A. Unisex, Type III only.

Size	XX-Short	X-Short	Short	Regular	Long	X-Long	XX-Long	Tol.
Back Length, <u>1</u>/								
X-Small	26	27	28	29-1/2	30-7/8	32-1/4	33-5/8	± 1/2
Small	26-1/2	27-1/2	28-1/2	30	31-3/8	32-3/4	34-1/8	
Medium	27	28	29	30-1/2	31-7/8	33-1/4	34-5/8	
Large	27-1/2	28-1/2	29-1/2	31	32-3/8	33-3/4	35-1/8	
X-Large	28	29	30	31-1/2	32-7/8	34-1/4	35-5/8	
XX-Large	---	---	---	32	33-3/8	34-3/4	36-1/8	
Half chest, <u>2</u>/								
X-Small	20-3/4	20-3/4	20-3/4	20-3/4	20-3/4	20-3/4	20-3/4	± 1/2
Small	22-3/4	22-3/4	22-3/4	22-3/4	22-3/4	22-3/4	22-3/4	
Medium	24-3/4	24-3/4	24-3/4	24-3/4	24-3/4	24-3/4	24-3/4	
Large	26-3/4	26-3/4	26-3/4	26-3/4	26-3/4	26-3/4	26-3/4	
X-Large	28-3/4	28-3/4	28-3/4	28-3/4	28-3/4	28-3/4	28-3/4	
XX-Large	-----	-----	30-3/4	30-3/4	30-3/4	30-3/4	30-3/4	
Sleeve Length, <u>3</u>/								
X-Small	20-1/4	21-1/4	22-1/4	23-1/4	24-1/4	25-1/4	26-1/4	± 1/2
Small	20-1/2	21-1/2	22-1/2	23-1/2	24-1/2	25-1/2	26-1/2	
Medium	20-3/4	21-3/4	22-3/4	23-3/4	24-3/4	25-3/4	26-3/4	
Large	21	22	23	24	25	26	27	
X-Large	21-1/4	22-1/4	23-1/4	24-1/4	25-1/4	26-1/4	27-1/4	
XX-Large	---	---	---	24-1/2	25-1/2	26-1/2	27-1/2	

1/, 2/, 3/ - See 3.12.1.1 for methods of measurement.

6.5.2.2 Style B. Female, Type III only, stretch factor.Style B. Female, Type III only.

Size	30	33	36	39	Tol.
Back length, <u>1</u>/					
X-Short	24-7/8	25-3/8	25-7/8	26-3/8	± 1/2
Short	25-7/8	26-3/8	26-7/8	27-3/8	
Regular	26-7/8	27-3/8	27-7/8	28-3/8	
Long	27-7/8	28-3/8	28-7/8	29-3/8	
X-Long	28-7/8	29-3/8	29-7/8	30-3/8	
Half Chest <u>2</u>/					
X-Short	20	21-1/2	23	24-1/2	± 1/2
Short	20	21-1/2	23	24-1/2	
Regular	20	21-1/2	23	24-1/2	
Long	20	21-1/2	23	24-1/2	
X-Long	20	21-1/2	23	24-1/2	

Style B. Female, Type III only. - Continued

Size	30	33	36	39	Tol.
Sleeve length, <u>3</u>/					
X-Short	23-7/8	22-1/8	22-3/8	22-5/8	± 1/2
Short	22-3/8	22-5/8	22-7/8	23-1/8	
Regular	22-7/8	23-1/8	23-3/8	23-5/8	
Long	23-3/8	23-5/8	23-7/8	24-1/8	
X-Long	23-7/8	24-1/8	24-3/8	24-5/8	
Shoulder, <u>4</u>/					
X-Short	15-3/8	16-1/8	16-7/8	17-5/8	± 1/2
Short	15-3/8	16-1/8	16-7/8	17-5/8	
Regular	15-3/8	16-1/8	16-7/8	17-5/8	
Long	15-3/8	16-1/8	16-7/8	17-5/8	
X-Long	15-3/8	16-1/8	16-7/8	17-5/8	
Half Sweep, <u>5</u>/					
X-Short	21-1/2	23	24-1/2	26	± 1/2
Short	21-1/2	23	24-1/2	26	
Regular	21-1/2	23	24-1/2	26	
Long	21-1/2	23	24-1/2	26	
X-Long	21-1/2	23	24-1/2	26	
Half Sleeve Opening, <u>6</u>/					
X-Short	5-7/8	6-1/8	6-3/8	6-5/8	± 1/2
Short	5-7/8	6-1/8	6-3/8	6-5/8	
Regular	5-7/8	6-1/8	6-3/8	6-5/8	
Long	5-7/8	6-1/8	6-3/8	6-5/8	
X-Long	5-7/8	6-1/8	6-3/8	6-5/8	

1/, 2/, 3/, 4/, 5/, 6/ - see 3.12.1.1 for methods of measurement.

6.6 Certificate of compliance. The contracting activity may select to accept a certificate of compliance for that specified requirement.

6.7 Toxicity testing. If dermal toxicity testing is required, it shall be conducted using Title 40, Protection of Environment, Code of Federal Regulations current edition and applicable sections, which are also consistent with the following OECD tests:

Skin Sensitization 406 and Dermal Irritation 404 (https://www.oecd-ilibrary.org/environment/oecd-guidelines-for-the-testing-of-chemicals-section-4-health-effects_20745788?page=1)

Dermal Sensitization (<https://www.law.cornell.edu/cfr/text/40/798.4100>)

Dermal Toxicity (<https://www.law.cornell.edu/cfr/text/40/798.2250>)

6.8 Fabric Defect Replica set. The Slub/Knot Replica Set is available from SDL Atlas (see 2.3 for ordering details.

6.9 Note: MIL-PRF-32635, Cloth, Flame resistant was previously referenced as GL-PD 07-12, Cloth, Flame resistant. The types referenced are the same in both documents, however the Classes have changed due to camouflages no longer being referenced.

GL-PD-07-12

Class 3 Operational Camouflage Pattern (OCP) is
Class 4 Coyote 498 is

MIL-PRF-32635

Class 1
Class 2

6.9.1 Changes since previous version. Type II 65/25/10 Rayon/Para-Aramid/Nylon Ripstop Flame Resistant coats was deleted, as there is no stock and it was replaced by Type III. All requirements and references to any testing covered by MIL-DTL-32659 were deleted.

6.10 Subject term (key word) listing.

Clothing
Clothing, Flame Resistant
Etofenprox
Insect protection
Jacket
Operational Camouflage Pattern (OCP)
Permethrin

THIS SPACE LEFT INTENTIONALLY BLANK

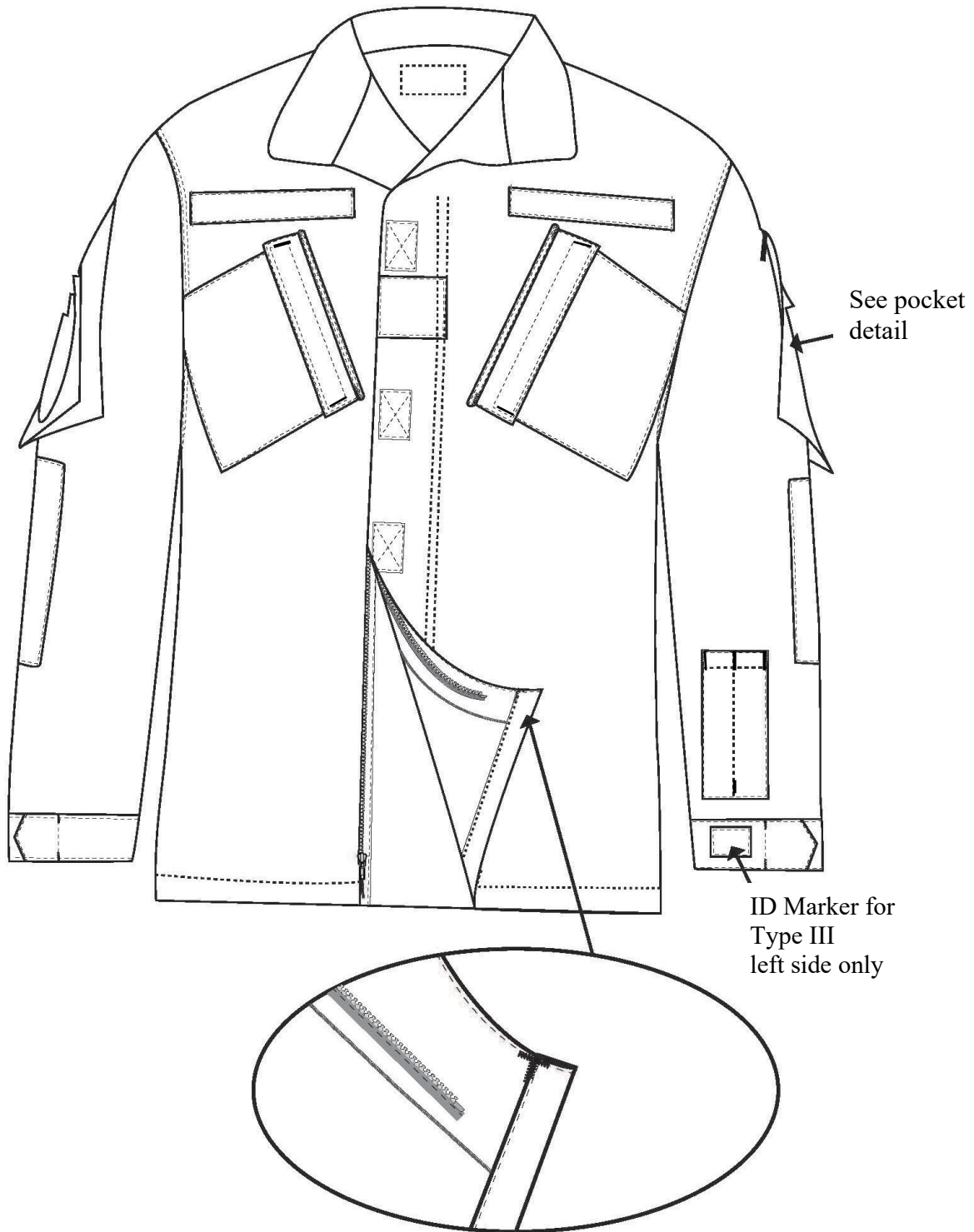


FIGURE 1. Coat Front, Advanced Combat Uniform.

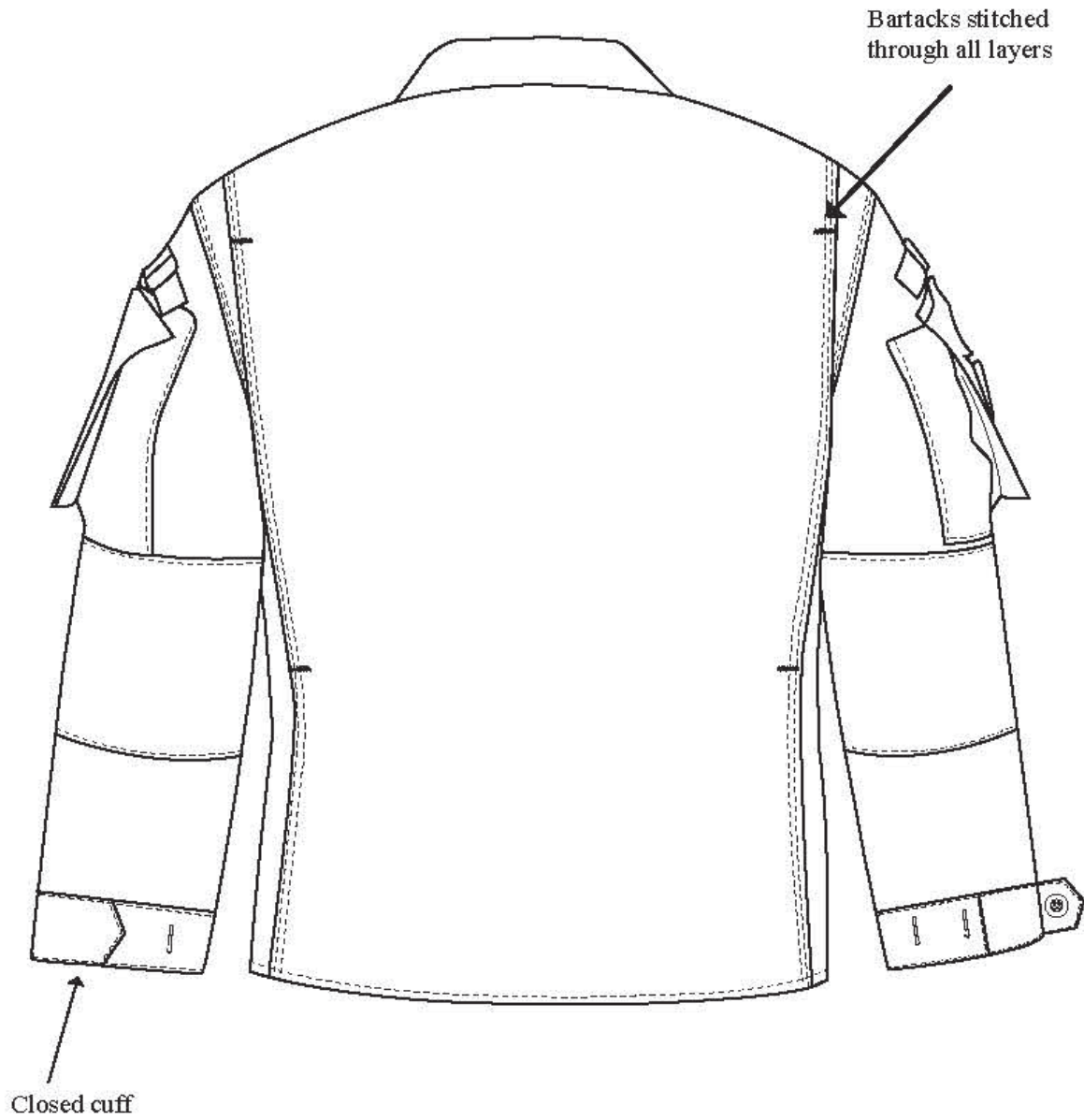


FIGURE 2. Coat Back, Advanced Combat Uniform.

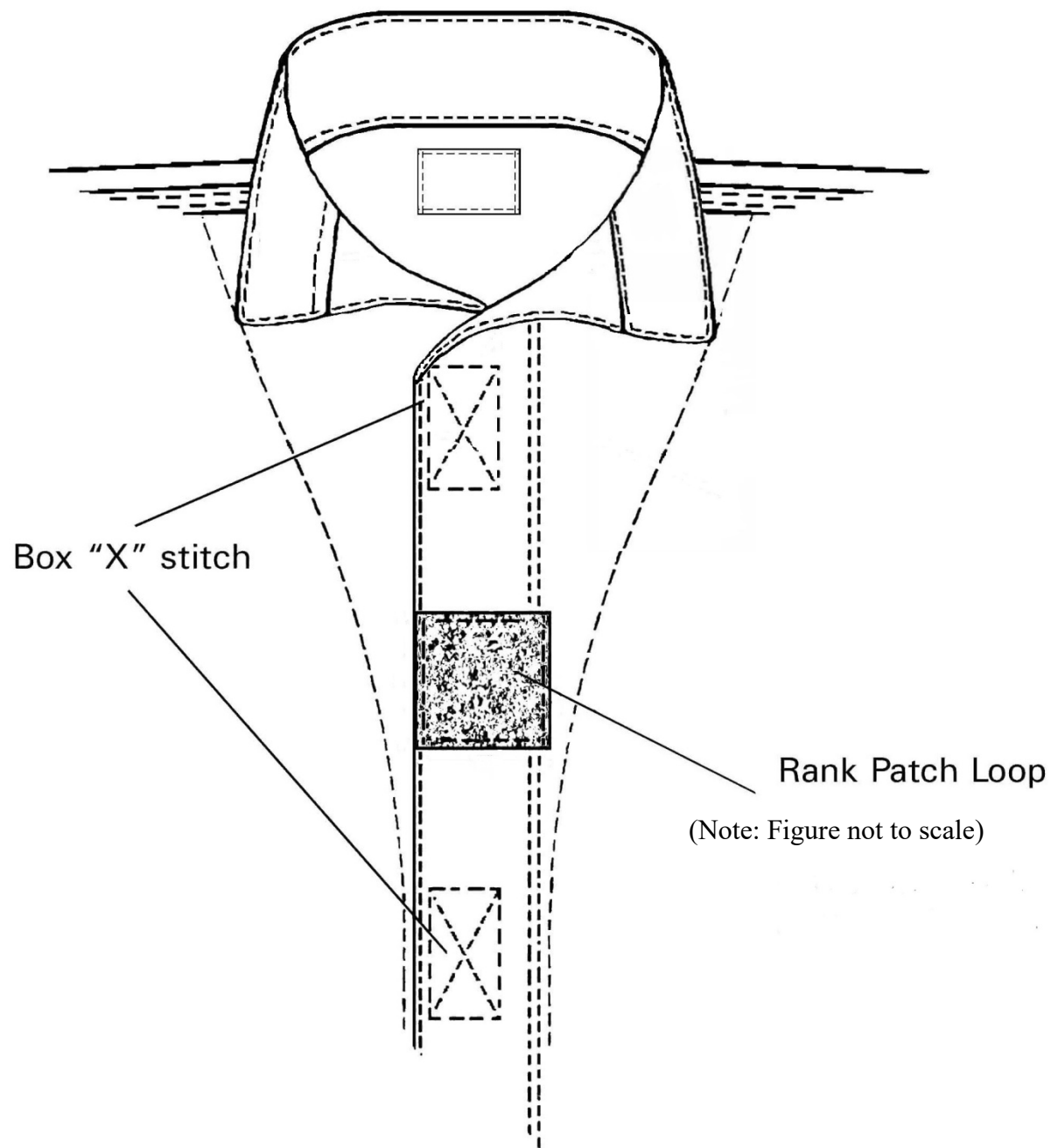


FIGURE 3. Coat Collar, Advanced Combat Uniform.

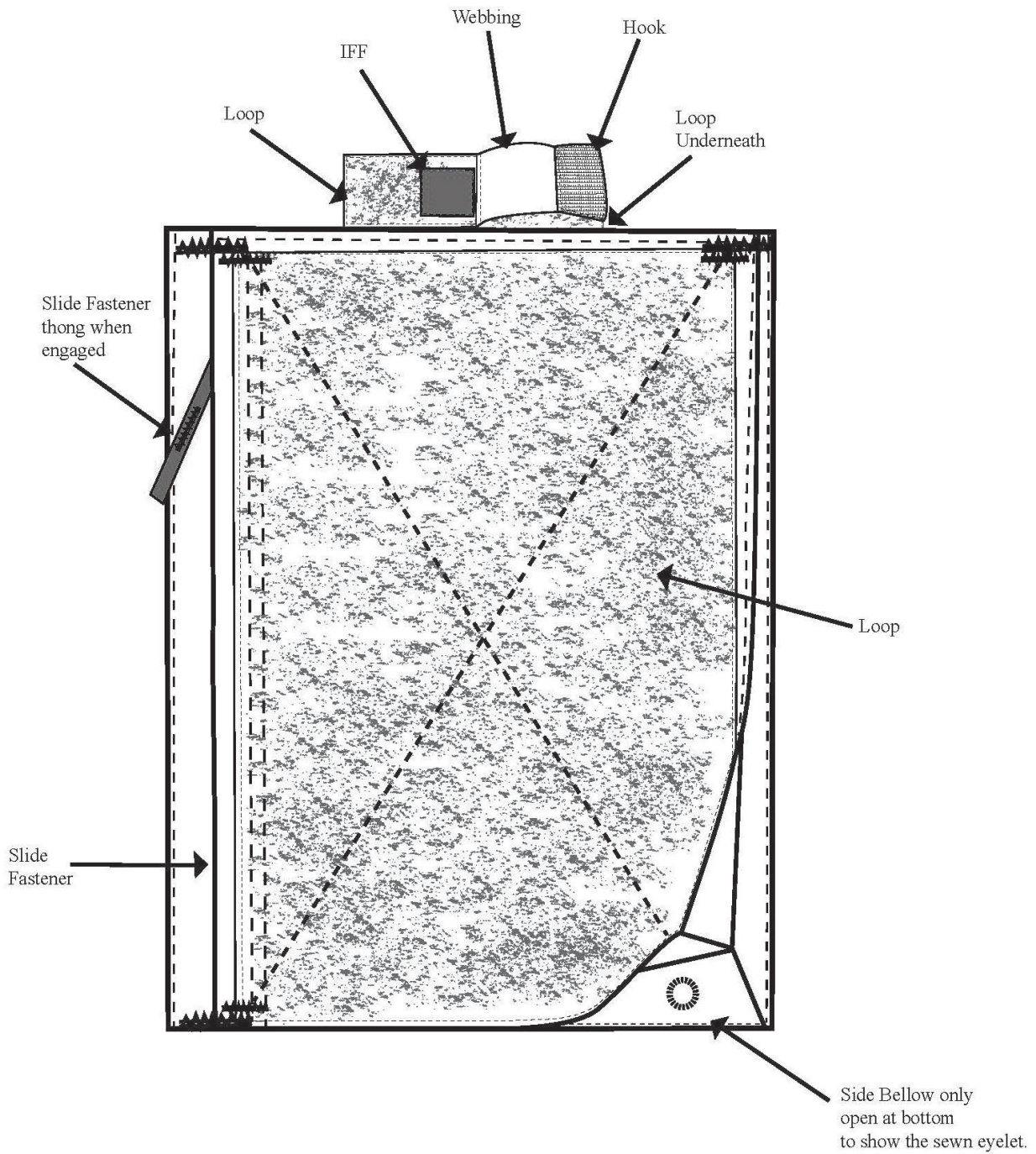


FIGURE 4. Coat Upper Sleeve Pocket, Advanced Combat Uniform.

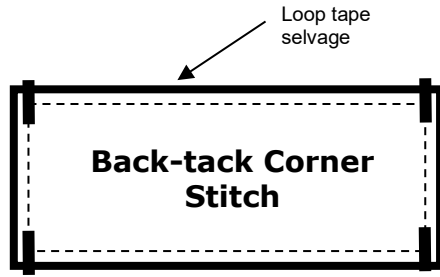


Figure 5a – Back-tack
Corner Stitch

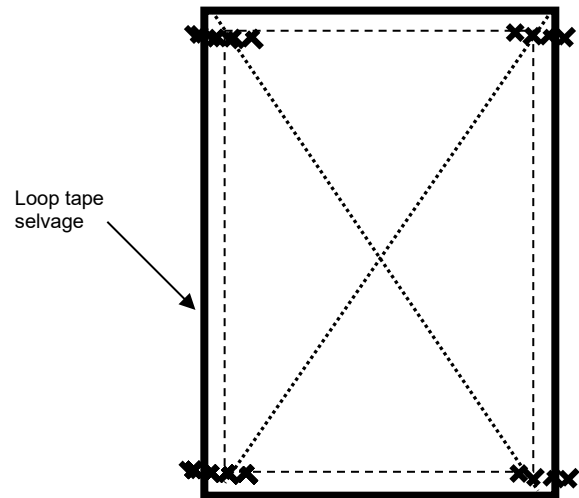


Figure 5b – Sleeve Pocket "X"
Stitch with Bar-tack Stitch

FIGURE 5. Loop Tape, Reinforcement Techniques.

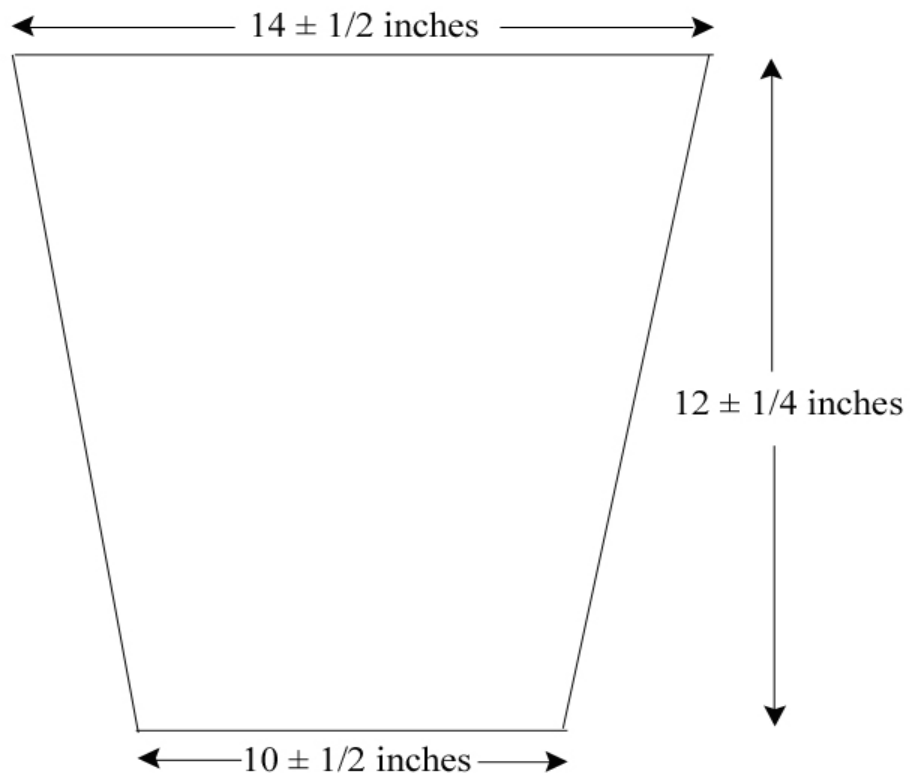


FIGURE 6. Test Specimen, % Bite Protection Test.

Custodian:
Army GL

Preparing activity:
Army-GL

Review activities
Air Force - 11
Navy - MC