

MIL-HDBK-156A  
15 September 1995  
SUPERSEDING  
MIL-HDBK-156  
1 February 1967

MILITARY STANDARDIZATION HANDBOOK

GLOSSARY OF MILITARY CLOTHING FABRICATION TERMS



AMSC N/A

FSC 84GP

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MIL-HDBK-156A

DEPARTMENT OF DEFENSE

WASHINGTON, DC 20301

MIL-HDBK-156A Glossary of Military Clothing Fabrication Terms

1. This standardization handbook was developed by the Department of Defense.

2. This publication was approved 15 September 1995 for printing and inclusion in the Military Standardization Handbook series.

3. This document provides basic and necessary information on military clothing terminology and definitions commonly used both in the Government and the clothing industry, including manufacturing operations and materials. It will provide valuable information and guidance to personnel concerned with the preparation of specifications and the procurement of military clothing items. The handbook is not intended to be referenced in purchase specifications except for informational purposes, nor shall it supersede any specification requirements.

4. Every effort has been made to reflect the latest information on military clothing manufacturing terms, operations, and practices. It is the intent to review this handbook periodically to insure its completeness and currency. Users of this document are encouraged to report any errors discovered and any recommendations for changes of inclusion to the Defense Personnel Support Center, ATTN: DPSC-FQSC, 2800 South 20th Street, Philadelphia, Pennsylvania 19145-5099.

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FOREWORD

This handbook may be used by the military services as a guide when preparing military specifications and other Government documents for military clothing items. Additionally, the document will provide assistance and guidance to clothing industry bidders and suppliers. Stitches, seams, and stitchings, referred to in this handbook conform to Federal Standard No. 751.

Consolidating and defining basic and commonly used clothing manufacturing words and phrases will:

- (a) Promote and establish a clear, easily understood, and effective communication system.
- (b) Tend to eliminate misunderstandings and errors by improving communications between the Government and suppliers.
- (c) Assist in the development and application of a timely, efficient, and more economic procurement system for military supplies.
- (d) Enhance product quality and contribute to industrial programs.

This handbook endeavors to define terms and phrases used both in Government procurement documents and by the manufacturing elements in the clothing industry. It should be noted, however, that the glossary should not be considered as the final or complete effort in this area. New materials, processes, machinery, and methods along with different meanings and interpretations applied to existing words and phrases will always result in changes, additions, and deletions being both valid and desirable.

Ultimately, the goal of this document is the successful communication of thoughts and ideas relating to the manufacture and procurement of specified military clothing items.

This objective will have been reached when both writers and readers of Government procurement documents come to the same conclusions, understandings, and interpretations of the definitions of words and phrases listed in this glossary.

DEFINITIONS

ABRASION: Wearing away or damaging a textile material by rubbing it against itself or another surface.

ABUT: Positioning fabrics end to end or side to side, with edges touching.

ACCORDION PLEATS: A series of expandable, sharp edges, upright folds of uniform depth pressed in by machine; serves as an ornamentation, provides a means of adding fullness, or both.

AIGUILLETTE: Ornate, generously glided shoulder cord, loop, or tag used for ornamentation on certain military uniforms.

ALIGNMENT: (1) Superimposing material edges; (2) Arranging parts or components in a corresponding line. For example, bringing the edges of material in a lay to one side or placing buttons and buttonholes in a corresponding position on the garment.

ANKLET: (1) Rib knitted cuff or band stitched to end of garment leg opening; (2) Type of short sock for the foot.

APPAREL FINDINGS AND NOTIONS: Miscellaneous components and items necessary to sew and fabricate garments and clothing items. Buttons, dressmaker pins, needles, shoulder pads, pocketing, hair nets, hooks and eyes, sewing kits, and other items are examples of this type of findings. See "trimmings".

APPAREL WOOL: General terms applied to all wools used in fabrics for fabrication into apparel, clothing, and textile items. The term is also used to describe a category of wools for tariff purposes.

APPLIQUE STITCH: Stitching used to apply fabric pieces to a background cloth, usually for decorative purposes.

ARMSCYE: Depth of the armhole, specifically in tailoring and dressmaking. The shape or outline of the armhole.

ARMHOLE SHIELD: Fabric or other material, shaped, and attached to the underarm section of a garment for protection against body perspiration. See "shields, sweat".

ARMHOLE: An opening for the arm in the body of a garment.

ARROWHEAD: A triangular design with hand or machine stitches, converging in the center of each angle of the triangle. Used for decoration, for reinforcement, or for both, at the ends of a piped, bound, or welt pocket opening.

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DEFINITIONS - Continued

BACK OF FABRIC: Reverse side of fabric to the "face". The under or back of a piece of cloth.

BACK LENGTH: A garment length dimension often specified for the various sizes in a tariff. The measurement is usually taken along the center back seamline.

BACKSTITCH: A method of reinforcing an end, or end, or a row of stitching by reversing the stitching direction with the stitching continuous and superimposed on the original row of stitching for a specified distance.

BACKTACK: Method of reinforcing the end or ends of a row of stitching. It consists of stitching continuously not less than three short superimposed rows of stitching by moving the cloth forward, back, and forward beneath the slightly raised presser foot.

BAND: Strip of fabric used to hold, ornament, or complete part of the garment.

BARTACK: A compact group of stitches made on an automatic bartacking machine or by hand. It consists of a number of parallel or superimposed stitches with cover stitches. It is used to reinforce points of strain.

BASIC MATERIAL: Cloth, or textile material from which the main body and principal parts of a garment are fabricated.

BASKET STITCH: Stitch in which the threads running in one way alternately pass above and below the cross threads. It is a hand operation.

BASTE: Sewing operation that uses a long or short, loose stitch that produces a temporary holding action. It is a hand or machine operation.

BATT (or) BATTING: Slightly felted or matted layers of carded textile fibers used for stuffing, padding, or quilting.

BELLOWS POCKET: Cloth pouch with pleats along the sides and bottom to increase holding capacity. It is attached to the outside of the garment.

BELTING: One-half to two-inch wide pliable plastic or stiff fabric such as buckram, canvas, or grosgrain ribbon used at the waist of skirts and other garments to keep them firmly in position.

DEFINITIONS - Continued

BELT LOOP: Strip of material attached to trousers, coats, and other garments for the purpose of receiving and holding belts.

BELT RETAINER: Strip of material, one end of which is fastened to a garment and the other end fastened to the belt, or a short loop fastened to a garment for the purpose of preventing the belt from separating from the garment.

BIAS CUT FABRIC: Strips of cloth that are knifed or sheared from conventional rolls or bolts of cloth. The strips are cut diagonal to the warp and filling (wale and course) directions. The cutting line begins at the lower left corner and ends at the upper right corner, and can be controlled to form any desired angle. Maximum flexibility in the bias cut strip is usually attained by cutting at a 45 degree angle.

BIGHT: Designates the depth of stitches for buttonholes, eyelets, and the depth of overedge stitching.

BINDER: Sewing machine attachment for guiding and folding bias cut or straight cut tape over the edges of textile material before stitching. Also, this applies to the attachment for feeding (See "bound edge" and "folder").

BINDING: A finish for an edge consisting of a single strip of fabric cut on the bias, straight cross-wise, or length-wise, folded, and covering an edge approximately the same amount on the top and under sides.

BLACK CHEMICAL FINISH: Dark organic or inorganic film or coating applied to metal eyelets, grommets, and the like.

BLANKET STITCHING: Overedge stitching, stitch class 500. It is used on blankets to prevent raw edges from fraying and loosening.

BLEND FABRIC: Cloth constructed of blended yarns, or with warp and filling yarns composed of different fibers.

BLENDED YARN: A single yarn spun from a blend of mixture of different fiber species; or yarn spun from a combination of various natural fiber, man-made fibers, or both natural and man-made fibers.

BLIND STITCH: Stitch that may or may not show on the right side of the fabric. It is a machine or hand operation. The stitching type is Efc-1, using stitch classes 100, 300, 400, and 500.

DEFINITIONS - Continued

BLOCKED AND PRESSED: Final operation that shapes and finishes a fabricated garment. This is accomplished by placing the garment on a fixed form and applying pressure, heat, and moisture.

BOBBIN: Metal, paper, or plastic spool-like device that holds the under thread in a lock stitch (stitch class 300).

BODKIN: Needle-like device for drawing tape or cord through hems, eyelets or tunnels that have been stitched on garment parts, and for attaching buttons with shanks. One end of this tool is blunt and the other end is eyed.

BONDED FABRIC: Textile material made from webs or mats of fibers held together with self-adhering fibers usually thermoplastic or other cementing and holding mediums (See "laminated cloth").

BONDING (or) LAMINATING FABRIC: A special, fusible interlining used between plies of fabric.

BOOK SEAM: Seam formed by (a) turning the edge of each two plies of material and stitching the turned portions to the body of the material with one row of stitches; (b) superimposing the two plies and seaming a specified distance from the turned edges with one row of stitches, and (c) opening the two plies and turning the edge of each ply under the body to finish seam. Stitch type SSba-3, using stitch classes 100, 300, or 400.

BOUND EDGE: An edge finished by means of a binding.

BOX PLEAT: A double pleat with material folded under at each side.

BOX STITCH: Lines of stitchings forming a rectangle or square with or without an "X" design of stitching.

BRAID: Flat, round, or tubular narrow fabric made by intertwining a single set of yarns to form a definite pattern. Also, it describes any textile material used for binding and trimming.

BREAKLINE (or) ROLL LINE: Line along which collar, lapels, and other parts are folded, creased, or rolled.

BRIDLE: Stay tape for coat front lapels positioned in back of breakline from gorge to bottom of lapel.

BUCKRAM: Inexpensive, heavily-sized, cotton cloth used for interlinings in garments.

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DEFINITIONS - Continued

BULGE: Abnormal or disfiguring protrusion of material in a fabricated garment or item.

BULKY EDGES: Stitched and finished textile material edges that appear thick, distorted, awkward, and clumsy.

BUNDLE: (1) Tied stack of cut parts or pieces of a garment in the process of manufacture; (2) Quantity of partially sewed garment parts tied, stacked, or boxed to keep them together as a unit.

BUNDLE SYSTEM: Stitching room production system in which cut garment components are tied or assembled into a package. Operator carries or moves the unit by the machine, completes the stitching operations and returns the completed work to a storage area. Handling is sometimes performed by service personnel.

BUTTON: Round, holed, or shanked disk made of various materials including metal, sheet, wood, bone, and plastic. Device is used as ornamentation or to close openings in clothing and textile items.

BUTTON LOOP: Predetermined length of cloth or cord formed into a loop and attached to edges of garment parts opposite or in line with closure buttons.

BUTTONHOLE: Cut openings in material that receive and retain ornamental or closure-type buttons. Edges of the openings may be stitched, bound, or piped.

BUTTONHOLE EYELET: The round cut out end of a buttonhole in which the shank (center of button) rests when a button and buttonhole is engaged.

BUTTONHOLE FACING: See "facing".

BUTTONHOLE MACHINE: Semi-automatic device that simultaneously cuts and sews "cut-first" and "cut-after" types of openings in textile materials.

BUTTONHOLE PURLING: A series of small thread loops worked around a cut opening of a buttonhole.

BUTTONHOLE STITCH: Stitch used to secure and bind the edges of cut openings in textile materials.

BUTTON SHANK: Stem or post part located on the underside or end of the disk. Shank is holed for sewing to garments.



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DEFINITIONS - Continued

BUTTON SIZE: The diameter of the button. Size of button is based on 1/8 inch increments. Also referred to as "Button Lignes", 40 lignes equals one inch.

CABLE NUMBER: Standard color file number established by the Color Association of the United States, Inc.

CABLE STITCH (or) CHAIN STITCH: Stitch made by interlooping two threads in a series of slipped loops. This stitch shall be stitch class 100.

CENTER FRONT PLACKET (Shirt Front): Finish for the overlapping shirt front edge where buttonholes are made. Usually the back edge of the turn-under is caught in the outer fold of the pleat or tuck along the inner edge.

CHOPPING: Two types of a cutting room process: (1) Pattern chopping in which the fabric is cut to the exact shape required; (2) Block chopping in which a fabric area containing the pattern shape is first cut and later subjected to a second cutting that produces the desired shape.

CLICKER PRESS (or) MACHINE: Hand-operated, semi-automatic cutting device that uses shaped metal dies to punch or cut components from various materials.

CLOTH: (1) Any textile fabric, especially one designed for apparel or domestic use; (2) A piece of textile fabric suitable for a specific use. Tablecloths and wiping cloths are examples (See "fabric, textile").

CLOTH CUTTING: Operation of forming garment parts by chopping or knifing marked fabric or material. Hand technique is accomplished with shears, knife, or scissors. Machine process using a clicker press and three types of power knives: round, up and down, and band saw. Computer controlled cutting machines shall use either straight knife, laser, or water jet.

CLOTH MARKER: See "marker".

CLOTH SPREADING: Laying lengths of cloth in multiple layers by hand or machine on a cutting table.

COAT FRONT INTERLINING : A woven or non-woven material placed between outershell fabric and lining fabric of the coat front.

COAT FRONT PADDING: Lightweight fabric constructed from either wool, felt, or cotton flannel and stitched on coat front areas.

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DEFINITIONS - Continued

COATED FABRIC: Processed cloth whose surface or surfaces have been permanently treated with a layer of film or chemical composition such as lacquer, plastic resin, or rubber.

COLLAR LEAF: Section of a shirt collar containing the points. It usually consists of a ply of stiffened interlining fabric positioned between an outer and inner ply of basic material.

COLLAR STAND (or) BAND: Section of a collar stiffened and sometimes reinforced with interlining to hold the attached leaf in position, or the section from the neck edge to the roll or crease line of a collar without a separate stand.

COLOR: Hue or chromatic appearance a material presents to the eye under a given light source.

COLORFASTNESS: Amount of stability a dyed or pigmented textile material retains when it has been subjected to a specified procedure of deteriorating factors such as sunlight, bleaching, and laundering.

COLOR MATCHING: Procedure for the comparison of dyed or pigmented textile materials to a referenced standard or shade tolerance range for the purpose of establishing conformance or acceptance (See "match").

COMMERCIAL: Term used to indicate a material or method used and accepted by an industry.

COMPONENT: Basic, essential part of clothing items and materials. Also, this is the subsidiary unit of a whole garment or clothing item.

COMPRESSIVE SHRINKING: Preshrinking a fabric with pressure and steam (See "pre-shrunk").

CONSTRUCTION: All fabric preparation, cutting, seaming, and stitching, and final finishing operations necessary for the completion of an apparel item.

CORD: (1) Two or more ply yarns twisted together; (2) A surface rib effect in fabrics; (3) A round, braided material for decorative purposes.

CORD EDGE BRAID: A flat braid with a round edge, occasionally with a stiffer yarn through the rounded portion.

CORD GUIDE: Sewing machine attachment for guiding and feeding edge material into a stitched seam.

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DEFINITIONS - Continued

COVER SEAM: Finished seam resulting from the positioning of one row of flat cover stitching over the single line of the joining stitches, or the edges abutted or overlapped, and stitched with a row of cover stitching on the top and under sides. The seam type shall be SSh-2, using stitch types 302, 402, or 406.

COUNT: See "yarns per inch".

COURSE: Series of loops running laterally in knitted fabric. This corresponds to filling in woven fabric.

COVER THREAD: Thread used in overedging, serging, and flat-seaming sewing machines to cover the raw edge of the material being stitched.

CREASE: (1) Intentionally set fabric fold of a sharp angular nature formed in a garment part by pressing;  
(2) Undesirable sharp and generally vertical fabric fold formed during the cloth finishing process.

CREASE LINE: Visible impression that remains after a fold in a fabric has been subjected to a molding and pressing operation.

CREASE PRESSED-IN: Sharply-pressed fold inserted intentionally in a fabric, usually by applying pressure, heat, and moisture. Center crease lines in front and back of trouser legs are examples.

CREASE RESISTANCE: Note: This term is commonly used in place of the preferred term "wrinkle resistant" (See "wrinkle resistant").

CROSS STITCH: Decorative stitch. One stitch crosses over another to form an "X". It is commonly used for button sewing.

CROWN: Top part or section of a hat or cap.

CUFF: Attached or detached lower section of a garment sleeve or leg. It is made of self or other material.

CURTAIN: Same as waistband lining in trousers. In garrison caps, this is the part that is attached to the lower edge of the side panels.

CUT FROM ENDS: Garment parts chopped or cut from short pieces of basic material.

DEFINITIONS - Continued

CUT FROM ONE PIECE OF MATERIAL: Indicates designated parts of a marker that must be chopped or cut from the same piece of basic material. The use of two separate pieces of material is prohibited.

CUT, MAKE, AND TRIM: All essential operations necessary to make a complete garment. In military purchasing, the basic material is available from the procuring agency. The supplier is responsible for garment fabricating and furnishing the additional components specified.

CUT-ON (or) GROWN ON: Indicates that a part, usually cut separately, is cut in one piece with another part.

CUTTING TABLE: Specially constructed table used for laying up cloth, marking, and then chopping or cutting garment parts.

DARN: To correct fabric defects such as cuts, holes, or tears by mending and sewing with yarn or thread. This is a hand or machine operation.

DART: Cut of folded area that is stitched to a tapering point at one or both ends. The dart is generally used to obtain a proper shape and fit.

DENIER: (1) A unit of weight indicating the fineness of fiber filaments and yarns.

DIAGONAL STITCHING: Slanting angle row of stitching beginning and ending in opposite corners.

DIE: Form, usually a hard metal, used for shaping, cutting or stamping garment parts and pieces.

DIE CUT: Component or part that has been shaped, stamped, blanked, or punched from leather, plastic, or textile material and conforms to a precisely designed metal outline.

DIRECTIONAL LINES: Marks drawn on pattern parts to show how the parts shall be placed on the fabric in relation to the straight of the goods (See "in the filling or warp direction").

DOUBLE-LAPPED DOUBLE-STITCHED: Seam type accomplished by folding inward the lapped edges of two plies of material so that the raw edges of the material are concealed. It is interlocked and then stitched with two rows of stitches. The seam type is LSc-2 (See "felled seam").

DEFINITIONS - Continued

DOUBLE STITCHED: An edge or seam having two parallel rows of stitching.

DRAPE: Ability of a material to fall in graceful, soft lines.

DRAW CORD: Small line or drawstring for adjusting fit and size of garment parts or sections. One end is inserted through either metal or sewn grommets or a tunnel. Ends are then drawn and tied.

DRESSING OF CUT PARTS: Trimming of surplus material from a garment part to make it conform to a required shape.

DRILL HOLE: Precisely positioned small puncture through an entire lay of cloth by mechanical means. This serves as a guide to stitching operators for the correct positioning of components and parts, or to indicate the location of darts, tucks, or pleats.

EASE: Construction operation for distributing fullness in seam lines at elbows, top of set-in sleeves, and other locations. It also provides a cupping or rounding of fabric by drawing the cloth parts closer together.

EDGE: (1) Border line along sides or ends of textile materials. They may be cut, raw, finished, turned, or folded; (2) Point at which a material begins or ends.

EDGE FINISH STITCHING: Class of stitching having a general characteristic of either stitching a series of stitches at or over the edge of a material, with the material edges folded or unfolded, or the edges of the material folded and stitched to the body of the material with a series of stitches.

EDGE, RAGGED: Irregular, uneven, or jagged ends or edges of textile that have been stitched or treated after cutting or knifing.

EDGE, RAW: Untreated or unfinished ends or edges of textile material that have been cut, torn, slashed, or slit.

EDGE STITCHING: Ornamental or functional row of stitching placed along or parallel to a finished edge or border of fabric or a garment part.

EDGE TREATMENT: Garment construction processes such as hems, bindings, stitchings, or facings, used to finish or manipulate raw sides or ends of fabrics or garment parts.

DEFINITIONS - Continued

EDGING: Usually a narrow, woven fabric or braid used to cover, decorate, or finish the edges of material or apparel

ELONGATION: (1) Increase in length; (2) Extension; (3) Increase in length of a specimen during a tensile test expressed in units of length, for example, centimeters, inches, or other units of measure.

END ITEM: Term used to indicate that a specified article of clothing has been completely fabricated or manufactured and is ready for the use intended. The term is not restricted to clothing items.

EPAULET: Type of shoulder ornamentation featuring hanging gold tassels and other ornate embellishment. Note: See shoulder loop. Shoulder loops on shirts are also referred to as epaulets.

EYELET: (1) Machine-made small round hole in textile material that is worked with stitch types 502, 503, or 401; (2) Bushing of durable material inserted and secured into a pre-cut hole in textile materials; (3) A small hole made by a stiletto and worked by hand with one of several types of hand stitches (see "grommet").

FABRICATION: Construction of clothing items by means of cutting, seaming, fusing, and stitching fabric and materials.

FABRIC COUNT: See "yarns per inch".

FABRIC, TEXTILE: Workable fibrous structure manufactured by bonding, braiding, knitting, weaving, or felting fibers, filaments, webs, or yarns (See "cloth").

FACE: (1) Usually, but not always, the right or finished side of a cloth; (2) The side of cloth that usually appears on the outside of the garment.

FACING: Added piece of fabric the same as, or different from, that of the garment. Stitched on inside or outside of garment showing on only one side to form a reinforcement, lining, or trimming (See "buttonhole facing").

FASTENERS: Metal, fabric, or plastic devices for closing a garment opening. They include but are not limited to, slide fasteners, hooks and eyes, hook and pile fasteners, snaps, loops, and buttons (See "garment closure").

FEED CUT: Fabric damage resulting from a faulty sewing machine feed dog (sharp, jagged teeth) or improper setting of feed.

DEFINITIONS - Continued

FELLED SEAM: Seam formed by turning one or both edges of a material to itself or to a section of another fabric (See double-lapped double-stitched").

FELLING STITCH: Continuous overcast stitch used to fasten linings, hold bindings, or to secure the turned edges of a stitched seam. This is a hand or machine operation.

FELT: Textile fabric composed of densely matted fibers that characterize it. There are two broad classes of felt: (1) Fabrics that rely for their construction upon the ability of the constituent fibers to mat together to form a composite body that has neither warp nor filling; (2) Fabrics having a woven structure.

FIBER BLEND: Intimate mixture of staple, natural, or man-made fibers having various compositions or colors.

FIGURE: Line drawing that illustrates and emphasizes important points of design and construction in a garment, component, material, or item.

FILAMENT: Variety of fine fiber of indefinite length, usually silk or man-made.

FILLING: In the construction of woven fabric, the individual yarns that interlace with the warp yarns at right angles to produce the fabric. Yarns that run cross-wise from selvage to selvage.

FINISHED APPEARANCE: Outward impression made on an observer by the style and design aspects of a completed ready-to-wear clothing item.

FINISH PRESSING: Final shaping and wrinkle removing operation on a completed garment prior to packaging and shipping.

FITTER: (1) Person who sorts, matches, and trims cut garment parts to correct size before they are joined to the garment; (2) Skilled tailor who adjusts, trims, and adjusts clothing to the proper size of an individual's body form.

FLAP: Flat, flexible, or hinged garment part with finished edges attached adjacent to pockets or other garment openings.

FLAT-FELL SEAM: Strongly stitched junction that lies flat with the material. The join shows two rows of stitching on one side and the joining seam line, and one row of stitching on the outer side.



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DEFINITIONS - Continued

FLY-FRONT: Pieces of material, attached to one edge of garment, that forms a flap to conceal garment closure.

FOLDER: Sewing machine attachment that automatically turns the edges of material before stitching (See "hemmer" and "binder").

FOURCHETTE: Strip of material used for the sides of glove fingers.

FRENCH SEAM: Seam made by joining two pieces of material by stitching, turning, and restitching to conceal all raw edges.

FULLNESS: Degree of generosity or measure of cut material for a pattern part.

FUSED SHIRT COLLAR: Type of shirt collar constructed by using a wet or dry pressure lamination process. There are two methods of fusing in general use: (1) Wet process using a cotton/acetate interlining fabric that is fused to the two outer plies of the collar by applying acetone based solvent, plus heat and pressure; (2) Dry process, using a cotton interlining coated with acetate cellulose film softened by steam and heat. Under pressure, it bonds the bottom interlining and the two outer plies of fabric.

FUSING PROCESS: In clothing construction, a technique used to bond or laminate plies of fabrics. Lamination is accomplished by using a heat/moisture/pressure cycle.

GAGE (or) GAUGE: (1) Distance between the two or more rows of stitching; (2) Space between the line of stitching and edge of raw or turned edge of a seam; (3) The width designation of a folder for turning under an edge binding or hemming; (4) Designation for stitch length or a machine device for adjusting stitch length.

GARMENT: Article of clothing. Any fabricated piece of material worn to cover the body.

GARMENT CLOSURE: Device for sealing and securing openings in garments or fabricated items. Buttons, slide fasteners, and other items are utilized (See "fasteners").

GARMENT HANGER (or) LOOP: Short length of leather, metal, plastic, tape, woven or braided material attached to the neck or waistline of a garment. The attached material forms a loop for hanging purposes.



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DEFINITIONS - Continued

GATHERING: Controlled stitching that results in wrinkled or corrugated-appearing fabric distortions. The finished stitching causes the shortening of the sewn cloth.

GAUNTLET: A protective glove with a continuous/attached flared cuff extension.

GIMP: (1) Plied twisted, soft, or glazed thread used to reinforce edges of buttonholes; (2) A trim for garment parts made with a stiffened core yarn, wire, twisted paper, or one that has the core covered with a desired yarn or fabric.

GLOSS: Polish, brightness, luster, or sheen imparted to a textile material.

GORE: Shaped or tapered piece of fabric set into a garment part to give fullness.

GORGE: (1) The hollow-shaped curve around each side of the neck, beginning at the top of the shoulder and ending at the pit of the neck in front; (2) A neck-edge of the front and facing part of a coat extending from the center front or collar notch on the top of the label to approximately one inch back of the lapel break.

GORGE SEAM: Stitched fabric joint that unites the section of a collar to the gorge of a garment.

GRADE: (1) Degree of relative fineness of wool fibers; (2) Classified designation regarding quality, workmanship, and dimensions of a component or end item.

GRAIN: Direction of yarns in a woven fabric. Lengthwise grain formed by yarns running parallel to selvage (warp ends). Crosswise grain formed by yarns running at right angles to warp ends between selvages (filling yarns).

GRAY (or) GREIGE GOODS: Knitted or woven fabric as it comes from the knitting machine or loom prior to any bleaching, dyeing, or finishing process.

GROMMET: (1) Ring or loop of metal, rope, fabric, or other material. It is usually positioned and attached to any eyelet-hole; (2) In uniform caps, it is a fabricated ring constructed from a round flexible material. The ring is positioned in the crown of the cap to give it shape and rigidity (See "eyelet").

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DEFINITIONS - Continued

GROSGRAIN: Substantial, durable fabric used for ribbons and ceremonial clothes. It is generally constructed with a silk or rayon warp and cotton filling giving a crosswise rib-corded effect.

GUIDE SAMPLE: A sample illustrating a specification item which may vary from specification requirements in some respects. It serves as an example of what the mass-produced item should look like (See "model (or) prototype").

GUSSET: Added piece of material sewn into a cut opening or seam in a garment to provide reinforcement, or expansion.

HAIRCLOTH: Interlining or stiffener fabric constructed with warp yarns spun from any of the major textile fibers and the filling yarns consisting of single strands of horsehair. Length of the horsehair governs the width of the cloth.

HEM: Turned and stitched edge of fabric used to finish edges or ends of garment parts. Skirt, quarter-sleeve undershirt, T-shirt, or coat sleeve hems are good examples (See "turn up").

HEMMER: Sewing machine attachment used for turning under the edge of a piece of fabric prior to stitching it down.

INSEAM: (1) On trousers, it is the line of joining stitches on inside of each leg running from the crotch to the bottom of the leg; (2) On sleeves, the joining line of the upper (top) sleeve to the under sleeve along the forearm seam of a two-piece sleeve.

INSET: Piece of cloth positioned between and attached to basic parts of a garment.

INTERLINING: A layer of fabric positioned between regular lining or facing and outside fabric of a garment or garment parts.

IN THE FILLING (or) WARP DIRECTION: Term used to indicate in what position a pattern part shall be placed on the fabric. Desired directional lines are drawn on pattern parts (See "directional lines").

INVERTED PLEAT: Two adjacent double pleats set in a flat fabric. Both edges of the folds face each other and are abutted (See "box pleat").

IRREGULAR: (1) Not straight or even; (2) Not uniform in shape, design, or proportion.

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DEFINITIONS - Continued

JOIN: To fasten textile material by seaming, cementing, or fusing.

KNIFE PLEAT: Straight angular fold whose edge is sharp, flat, and firm.

LAMINATED CLOTH: Fabric consisting of two or more plies of material adhered with plastic glue, intermediate thermoplastic film, resin, or rubber. The term is sometimes used when a single layer of cloth is adhered to a formed or pre-cast sheet (See "bonded fabric").

LAPTEL: Front, upper part of a coat or jacket opening which is folded toward the outside. The collar is a continuation and part of the lapel.

LAPTEL PEAK: The shaped point located at the corner of the lapel step.

LAPTEL STEP: Top edge of a coat lapel extending from the peak of the lapel to the end of the collar.

LAY: (1) Specific number of plies of fabric material spread on cutting table prior to marking and cutting; (2) Operation of spreading the plies of fabric.

LAY-OFF: Shaping and forming finished gloves on a form called a laying-off board.

LIGNE (or) LINE: Button size factor used in designating the diameter of the disk. One line is equal to one-fortieth of an inch.

LINING: Textile material used to cover partially or completely inside area of a garment or clothing item.

LINING, FULL: One that covers the entire inside area of a garment.

LINING, HALF: Garments that have a partial or skeleton inside covering, usually extending from fronts to side seam, part way down the back, usually about one-half way.

LINING, QUARTER: One that covers the upper part of the front and back to below the armholes.

LOCK STITCH: Stitch formed by needle and bobbin threads being joined and held fast by interlacing the loops of the needle thread with loops of the bobbin thread, stitch class 300.

DEFINITIONS - Continued

LONDON SHRINKING: Fabric conditioning process applied to cloth before cutting. The process using a wetting-drying-refinishing cycle.

LOOP: Doubled or folded yarn or thread, lengths of fabric, leather, metal, or plastic formed into a ring, eye, tunnel, or strap.

LOOPER THREAD: Under thread of a sewing machine using eyed loopers as part of the stitch forming mechanisms.

LUSTER: Characteristic of a material that creates a shiny, mirror-like appearance.

MAKE (or) PLACE A MARKER: Positioning the working patterns as indicated by the directional lines in an arrangement for cutting, either directly on the top ply of a play for marking off, or on paper. It is done to match the cloth pattern and effect the best cutting economics.

MARGIN (or) BORDER: Distance from a row of stitching or seam to the edge of the fabric.

MARKER: A single ply of paper or cloth upon which pattern parts have been positioned and traced with a coloring or tinting medium (See "cloth marker").

MARKER, CARBON PAPER: One of several multiform sheets of thin paper containing the traced outline of a pattern. The outline is transferred to the sheets of paper by using a special-coated transfer paper.

MARKER, COMPUTER GENERATED: A single ply of paper upon which pattern parts have been traced via computer.

MARKER, PERFORATED (or) STENCIL: Marker having a perforated outline of the pattern parts. When it is positioned on a lay, the perforated outline of garment parts is dusted or rubbed with a chalk, paste, or liquid coloring medium.

MARKING: Tracing with chalk or graphite garment pattern parts on paper or cloth.

MATCH: To assemble and group garment parts and components that have compatible color properties (See "color matching").

DEFINITIONS - Continued

MERCERIZED: Cotton yarn or cotton fabric that has received, while under tension, a caustic soda treatment. It gives cotton fibers a permanent silken luster, added strength, and a greater affinity for dyestuffs.

MITERED CORNERS: Fabric corner junctions finished with a seam that forms a diagonal line to the point of the corner.

MOCK SEAM: Formed by folding one piece of material and stitching the plies near the fold with the tuck formed on the inside.

MODEL (or) PROTOTYPE: Example of garment or clothing item that shows design and style features (See "guide sample").

NECKLINE: The line where the collar is attached to the body of the garment. In collarless garments, the top finish line around the neck area.

NEEDLE CHEW (or) CUT: Fabric damage resulting from improper or faulty needle (type, size, style, and point) or fabric finish.

NOMENCLATURE: Official name or title of materials, components, and end items.

NONWOVEN FABRIC: Web or sheet of textile fibers transformed into cloth by bonding or interlocking the mass by chemical, thermal, solvent, or mechanical means.

NOTCHED LAPSEL: Lapel with a finished V-shaped break or cut positioned between the top of the lapel and end of collar.

NOTCHES: Small slits "u" or "v" shaped cuts in pattern parts or material showing where parts will be joined or where pleats, darts, or pockets will be located.

OFFICIAL SHADE: Fabric or material shade color specified and required by the U.S. Government.

ON THE GRAIN: Direction to position a pattern part lengthwise on the warp of a fabric.

OPEN SEAM: When stitches are missing, broken, skipped, or run-off on any adjoining seam. Edge or raise-stitched seams, when not constituting a joining seam, are excepted.

DEFINITIONS - Continued

ORNAMENTAL STITCHING: Class of stitching having a general characteristic a series of stitches that are embodied in a material either in a straight line, curve, or a design. It is used for decorative purposes. The stitching types are Osa-1, Osa-2, and Osa-3, using various stitch classes.

ORNAMENTATION: Materials added to a garment as a decoration or embellishment. Generally, they consist of buttons, braid, cord, lace, or thread.

OUTLET: Extra seam allowance provided for alterations of a garment.

OUTSEAM TROUSERS: Line of joining stitches on outside leg of trousers from waistband to bottom.

OVERCAST (or) OVEREDGE STITCH: Slanting, zig-zag, or ornamental edge covering stitches used mainly to prevent raw edges from raveling. The stitching type shall be Efd-1, using stitch classes 300, 500, or 600 (See "whipping").

OVERLAPPED: One piece or part of material extending over another part.

PAIRING: Matching of two corresponding items. Usually a pair consists of opposites, i.e., a right and left item.

PANEL: Lengthwise strip of self or other material sewn into a garment part.

PARALLEL: Side by side. Extending in the same direction at the same distance apart.

PATTERN: (1) Paper or metal outline of parts of a garment; (2) In fabric construction, the repeat of a design.

PATTERN GRADING: Method of decreasing or increasing standard pattern to various sizes.

PERMANENT CREASE: Sharp-edged angular fold of predetermined duration resulting from either fiber blending or both fiber blending and chemical/mechanical processing.

PINKING MACHINE: Sewing machine that automatically cuts saw tooth edges in textile material to prevent raveling of cut edges.

PINKING SHEARS: Hand-held shears with saw-tooth blades for finishing edges and preventing raveling.

DEFINITIONS - Continued

PIPED (or) WELT POCKET: Pocket opening that has been finished by stitching and seaming a strip of material to it. The seam type is SSav-2, using stitch classes 300 or 400.

PIPING: -A small cord covered with cloth, sewed on a seam or border to strengthen it. An edge of cloth folded on itself, usually over a cord, and sewn down.

PLACKET: Piece of fabric, usually folded, attached to one side of an opening and extending under the other side of the opening, or attached as a finish to both sides of an opening.

PLAIN SEAM: Two or more plies of material joined by superimposing with edges even, and stitching with one row of stitches a distance from the edge. The seam type is SSa-1, using stitch classes 100, 200, 300, 400, and 500.

PLEAT (or) PLAIT: Single or double angular, or curved fold placed in a flat fabric. It usually runs lengthwise.

PLEATING: Mechanical or hand operation of forming and setting sharp-edged, angular, or curved folds in flat fabric by using pressure, heat, and moisture.

PLY: (1) In clothing fabrication, a spreading and cutting term indicating the individual pieces of cloth in a lay; (2) In fabric yarns or sewing thread, the number of individual yarns twisted together to produce a composite yarn; (3) Also, it designates the individual yarns within a plied yarns.

POCKET: Cloth bag, pouch, or patch sewn on or into garments.

POCKET BEARER: Strip of basic material stitched to the pocketing in a garment. It is designed to support inside hanging pockets.

PRE-SHRUNK: See "compressive shrinking" and "sponging".

PRESSING IRON: Shaped and heated iron. It is hand operated and used dry or with moisture to smooth, shrink, or mold fabrics and garments.

PRESSING MACHINE: Heated mechanical device used to smooth, shrink, or mold cloth or clothes and make them presentable. The machine is usually designed and made to automatically press one part of a garment at a time.

PRESS SEAM OPEN: Operation of opening and laying flat the seam allowances of a joined seam by pressing.

## MIL-HDBK-156A

DEFINITIONS - Continued

PROGRESSIVE BUNDLE SYSTEM: Same as "bundle system" except that the complete bundle is moved forward along the production line over tables or chutes. Emphasis is placed on the location of machines and operations in order to keep the work moving progressively without backtracking or unnecessary handling, thus tending to eliminate service personnel.

PUCKERING: (1) Uncontrolled and undesirable fullness of material during and after stitching caused by tight tension, or the reaction of treated or synthetic thread; (2) Undesirable corrugated distortions or pleats at the seam line.

QUALITY: Attributes or characteristics such as class, kind, or grade that distinguish and identify clothing items as either being acceptable or unacceptable in accordance with specified standards.

QUILTING: Multiple stitching operation that anchors and secures a multi-layered fabric sandwich. The lines of stitching follow a definite geometric design. The seam types shall be SSV-1, SSV-2, and SSV-3.

RAISED SEAM: Seam allowance is folded back and stitched close along the edge. The seam types shall be SSB-1, or LSQ-2, using stitch classes 200, 300, or 400.

RESIN IMPREGNATED AGENT: Cellulose acetate, cellulose acetate butyrate, or other polymeric material used to treat the ends of webbing, cloth, cord, or other textile material to prevent fraying.

REVERSIBLE: Distinctive characteristic of fabrics or garments finished on both sides that permits either side to be used or worn as the face or right side of the fabric.

ROLL PRESS: Shaping of a garment part on a contoured steam press. This molding process produces an uncreased roll line on a garment section.

RUFFLING: Controlled stitching of a series of small side folds, pleats, or gathers in a piece of cloth. Length of the stitched fabric is shortened.

SEAM: The fold or line formed by sewing together two pieces or edges of cloth; any place where two or more parts of a garment or material are joined by stitching, cementing, or bonding.

SEAM ALLOWANCE: Amount of fabric allowed between the seam line, line of stitching, and the edge of the cut cloth or seam.



## MIL-HDBK-156A

DEFINITIONS - Continued

SEAM BINDING: Narrow strip of cloth, bias or straight, used to cover and finish a seam or raw edges of joined fabrics.

SEAM LINE: Imaginary line on which seam will be sewn, permitting proper seam allowance.

SEAT SEAM: Seam located at the back of trousers, slacks, and similar items. It extends from the waistband to the crotch.

SELF MATERIAL: Basic fabric of a garment.

SELVAGE (or) SELVEDGE: Reinforced parallel warp ends woven on one or both edges of a piece of cloth. They prevent cloth from rolling or unraveling.

SERGING: Overcast or overedge stitching on the edges of textile material to prevent ravelling. The stitching type shall be EFD-1, using stitch class 500.

SET-IN POCKET: See "slash pocket".

SEWING: Process of uniting or fastening by stitches made with thread and separate pieces of textile materials such as leather, fur, and plastic.

SHADE: Term used to indicate a gradation of color from a specific standard. The many minutely differing variations of the same color; degree of luminosity or brilliance of a color.

SHADED PARTS: Fabric components or sections of a garment that are uneven in color, cast, or tone and do not match the basic color of the garments.

SHADE MARKING: Color control system used on dyed garment parts to prevent fabrication of different shades of components in clothing items (See "ticketing" or "shade ticket").

SHADE NUMBER: List of digits designating official colors required by the U.S. Government.

SHADE STANDARD: Sample of an item, component, or swatch that has been dyed with an official color. In the absence of a sample, official shade lists are used.

SHADE TICKET: See "shade marking" or "ticketing".

## MIL-HDBK-156A

DEFINITIONS - Continued

SHADING: Matching and grouping of dyed fabrics and materials to attain uniformity of color.

SHALL APPROXIMATELY MATCH: Color of dyed garment parts or dyed components that shall be compatible or equivalent to the color of the base fabric of a color standard.

SHANK WRAP: Part of a button-sewing operation that attaches a button away from a material and then winds additional thread around the stitchings to form a stem or shank. It is a hand or machine operation.

SHAPER: Pattern part used for marking the finished outline of garment or component parts and for checking the shape of garment parts after the interlining and shape pressing operations.

SHIELDS, SWEAT: See "armhole shield".

SHIRRING: A series of parallel lines of stitching drawn up to form fullness or gathers in a fabric.

SHOULDER BOARDS: Curved or flat, arrow-shaped fiberboard bases that are covered with outershell fabric. May be made from outershell fabric with interlining for wear on shirts and sweaters. Military insignia and devices have been permanently attached or embroidered to the base covering cloth. Marks are made in pairs, right and left.

SHOULDER LOOPS: Fabricated strips of shaped fabrics that are attached to the shoulders of military uniforms. Their function is to bear equipment and hold ornaments or insignia.

SHOULDER PAD: Shaped, formed, and stitched cotton or synthetic wadding positioned inside garments on shoulder. Improves hang and appearance of sleeve.

SHRINKAGE, FELTING: Unlimited and inconsistent natural shrinking action; unique and peculiar to wool fiber. This action results in an entangled, compact, and uncontrolled mass of fiber, yarn, or fabric.

SHRINKAGE, RELAXATION: Loss of fabric area. Washing or laundering a finished fabric removes the built-in stretch and tension caused by spinning, weaving, and finishing a fabric.

SHRINKAGE, RESIDUAL: Potential and actual shrinkage properties remaining in fabrics after the cloth.

## MIL-HDBK-156A

DEFINITIONS - Continued

SHRINKING: Preparatory shrinkage treatments applied to fabrics for the purpose of preventing shrinkage in finished garments after laundering and washing.

SHRINK RESISTANT WOOL: Chemically-treated wool fiber or fabric that withstands felting shrinkage.

SILKING: Sewing ornamental rows of stitching on the back of gloves.

SLASH: Controlled cut or slit in the fabric of a garment or garment part.

SLASH POCKET: Hanging cloth pouch on the inside of a garment that has been positioned and fitted through a cut or slash, usually at an 8° angle, made in the fabric. The opening is usually piped, bound, or welted (See "set-in pocket").

SLEEVE: Section of a garment that serves as a covering and protection for the arm.

SLEEVE HEADS: Stitched strips of cotton or synthetic wadding positioned inside at top of sleeve, used to improve appearance of the top part of sleeve where it joins armhole.

SLEY: Number of warp ends per inch of cloth exclusive of selvage.

SLIT: Narrow cut or opening in material designed to facilitate the fabrication of an item.

SMOOTH CLOSURE: Completion of the closing/opening cycle of a fastening device without distortion.

SPECIAL MEASUREMENT SIZES: Larger or small garment dimensions falling outside the normal tariff-range.

SPONGING: Process of preshrinking woolen and worsted fabrics in preparation for the cloth cutting operation. Steam shrinking and London shrinking are two widely used methods (See "pre-shrunk").

STANDARD: Established rule or reference, commonly accepted, as the basis for comparison and judgement of quality.

STANDARD PATTERN: Official authorized Government-design pattern used by suppliers in the cutting of parts for the fabrication and manufacture of clothing items.

DEFINITIONS - Continued

STAY STITCH: Stitch placed in garment parts to control material for subsequent operations.

STAY TAPE: Usually a warpwise narrow cut fabric used to keep certain parts of a garment from stretching.

STEAM SHRINK: Shaping and molding by steam pressing.

STIFFNESS: Characteristic of a fabric reflecting its rigidity or resistance to bending, flexing, or draping.

STITCH: One unit of conformation of thread resulting from repeatedly passing a strand of strands and a loop or loops of thread into or through material at uniformly spaced intervals to form a series of holding threads.

STITCHING: Sequence of stitches used for finishing an edge, ornamental purposes, or for preparing parts for assembling.

STRAIGHT LINE SYSTEM: Production method of clothing manufacture that uses a single garment part as the unit of work. Manufacturing operations are set up in a sequence and the parts are completed by each operator in order. With stitching completed, the parts remain connected by a thread chain and are passed on to the next operator.

STRAIGHT OF THE MATERIAL: Vertical, warp, or lengthwise direction of a piece of cloth or fabric.

STRAP: Narrow, flexible strip of material fabric, leather, or plastic used to bind, reinforce, or secure garment parts or components.

STRENGTH: Capability of a material to resist strain or rupture induced by external forces.

STRENGTH, BREAKING: Specifically, the load or force expressed in units of weight, required to break or rupture a specimen in a tensile test made according to a specified standard procedure.

STRENGTH, TENSILE: Resistance of a textile material to rupture or break when subjected to tension.

SUIT: (1) In men's wear, a coat and trousers, with or without a vest; (2) In women's wear, a skirt and jacket, or slacks and coat.

DEFINITIONS - Continued

TAB: Small fabricated piece of self or other material attached to a garment part. It functions as a holding, adjusting, or ornamental device.

TACK: Additional stitchings for reinforcement. Also, it is temporary stitching for holding parts together until the permanent stitching can be applied.

TACKING MACHINE (or) AUTOMATIC TACKER: Power sewing machine that automatically cycles a predetermined sewing design, cuts the sewing threads, and raises the presser foot to complete the operation.

TAPE: A narrow strip of woven, cut, knitted, or braided fabric up to but not including 0.42 ounces per linear yard of one inch width (See "webbing").

TAPE, CROSS: Narrow fabric used for covering and staying front shoulder, back of neck, lapel fronts, and bottoms of coat facings.

TAPER: Cutting or slashing operation that produces a gradual decrease in width or thickness. In clothing construction, this refers to a dart, seam, or outlet.

TARIFF (of) SIZES: Ratio of a particular size in relation to an arbitrary total, usually 1000. Used to determine specific quantities of a required size for procurement.

TENSION: Degree of tautness in thread, fabric, or other materials.

TEXTILE MATERIAL: Reference term for fibers, filaments, yarn intermediates, yarns, fabrics, and products made from fabrics. Fabrics made into products should retain more or less the strength, flexibility, and the properties of the original fibers or filaments.

TEXTURE: Feel, surface appearance, hand, or finish found in a fabric or textile material.

THREAD, SEWING: Natural or synthetic fibers or filaments twisted or drawn into a yarn.

THROW: Width of zig-zag stitching.

DEFINITIONS - Continued

TICKETING: See "shade marking" or "shade ticket".

TOP COLLAR: Exposed or outside section of a fabricated neckpiece on a garment.

TOLERANCE: Stated allowance for deviations and variations in a specified dimension.

TONGUE NOTCH: V-shaped cuts or slashes used to finish piped buttonholes or slashed pocket openings.

TOPSTITCHING: Thread placed on the right side of fabric to reinforce a seam, prevent edge rolling, emphasize a design feature, or to provide a more functional seam.

TRIMMER: Sewing machine attachment that automatically cuts and straightens the edges of material.

TRIMMING: (1) Cutting and removing undesired or loose thread ends from stitched seams; (2) Adding parts to a garment for decoration, finish, or ornamentation.

TRIMMINGS: See "apparel findings and notions".

TROUSER CURTAIN: See "waistband lining".

TROUSER RISE: Front measurement on trousers taken from the crotch up to the top of the waistband.

TUCK: Stitched fold in a garment. It is used to decorate, hold, adjust, or shape a garment. The stitching type is OSc-1, using stitch classes 100, 300, or 400.

TURN: Bending or folding a fabric edge over or under itself.

TURNING: Turning a seamed or tubular fabric or garment part inside out, usually before pressing or top stitching.

TURN UP: Amount of material allowed on a garment part that will be folded and finished with a stitched hem (See "hem").

TWISTS: Fabric distortions unintentionally placed or stitched in garment parts and seams.

UNDERCOLLAR: Unexposed or bottom part of a fabricated collar.

UNDER PRESSING: Pressing operation performed on garment parts or on a garment prior to attaching the lining. The pressing is done on the side of the fabric that will not show when the garment is done.

DEFINITIONS - Continued

UNDERSLEEVE: Separate sleeve worn under a garment sleeve. Also know as the underpart of a two-piece sleeve.

UNIT: (1) The smallest whole number; (2) One; (3) A standard of measurement; (4) An individual whole.

UNIFORM: (1) Official military and distinctive clothing apparel worn by members of the Armed Forces. (2) Men's or women's clothing of the same design, fashion, and fabric used by all individuals in a group.

VENT: Finished vertical slit or opening at bottom of sides or back on a coat or jacket.

WADDING: Processed cotton, wool, or synthetic fiber, formed into thick, fluffy sheets of matted material. It is used for padding and stuffing.

WAIST: (1) Body circumference between ribs and hips; (2) A garment that covers the body from the shoulders to the hips.

WAISTBAND: Strip of fabric attached on or to a garment part for the purpose of performing a holding or fitting function at the mid-section of the body.

WAISTBAND LINING: Inner covering or facing of a waistband. It may consist of one ply of a lining material or the single facing may be inner lined. This functions as an inner belt (See "trouser curtain").

WALE: (1) Lengthwise, or vertical series of loops in knitted fabrics; (2) The raised cord, rib, or hill running warpwise in a woven fabric.

WARP: In woven fabric, the individual yarns that run vertical and lengthwise between the selvages.

WEBBING (TEXTILE): A narrow, woven fabric available in weights of 0.42 ounces or over per linear yard of one inch width (See "tape").

WEIGHT OF CLOTH: A fundamental characteristic of cloth relative to its density per unit length. Usually three units of measurement are used for identifying the weight of a piece of cloth or fabric.

- (a) Ounces per square yard.
- (b) Ounces per linear yard.
- (c) Yards (generally linear) to the pound.

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DEFINITIONS - Continued

WELT: (1) Strip of material stitched and seamed to a pocket opening; (2) Raised or lapped seam; (3) Covered cord or ornamental strip sewn on a border or along a seam; (4) In knitting, a flat knitted, separated then joined to the fabric by looping and hand knitting, as the heel to the stitching; (5) A ribbed piece of knit goods used in forming the end of a sleeve or sock to prevent raveling; (6) A piece of strip fastened onto the edge of or sewed into a seam in glovemaking.

WHIPPING: Ornamental or functional edge finishing used to bind and secure material edges (See "overcast or overedge stitch").

WIGAN: A firm, lusterless, starched cotton interlining fabric.

WORKMANSHIP: The skill and artistry reflected in the quality of fabricating a component or end item.

WRINKLE: Undesirable deformation of a fabric that may be formed by a crease, ridge, furrow, or fold.

WRINKLE RESISTANT: Fabric characteristic obtained by the application of a chemical treatment or by a process of blending. The treatment or blending is designed to condition against and assist in the rapid recovery from undesirable, normal fabric folds or pleats (See "crease resistance").

YARN: Continuous strand of textile fibers, filaments, or material in a form suitable for knitting, weaving, or otherwise intertwining to form a textile fabric. It is used to weave, knit, braid, or fabricate textile fabrics. Yarn occurs in the following forms:

- (a) A number of fibers twisted together.
- (b) A number of filaments laid together without twist (a zero-twist yarn).
- (c) A number of filaments laid together with more or less twist.
- (d) A single filament with or without twist (a monofilament).
- (e) A narrow strip of material such as paper, cellophane, or metal foil, with or without twist, intended for use in a textile construction. Varieties include single yarn, plied yarn, cord, thread, and other specialty yarn.



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DEFINITIONS - Continued

YARN NUMBER (or) COUNT: Standard measure of fineness or linear density in a continuous strand of textile fibers. Two classes of systems are used to measure linear density: (1) Direct yarn number (equal to linear density) is the mass per unit length of yarn. These numbers are based on the denier system and are used traditionally for silk, jute, and man-made fibers in both the filament and spun or staple yarns (See "denier"); (2) Indirect yarn number (equal to reciprocal of linear density) is the length per unit mass of yarn. These numbers are based on the number of units of constant yardage (but with the constant varying depending on the fiber) required to weigh one pound.

It is used for cotton, spun silk, linen and woolen yarns, worsted and glass. These number designations decrease as the diameter of the yarn becomes greater.

YARNS PER INCH: (1) In woven fabric, the actual number of warp and filling yarns per inch of cloth; (2) In knitted fabrics, the number of wales or ribs and courses per inch of cloth (See "count" and "fabric count").

YOKE: A shaped supporting section of a garment usually found in hip or shoulder area.

ZIG-ZAG STITCH: Seaming or edge finishing machine stitch that follows a "V" pattern in positioning the sewing thread through a material. The seam type shall be SSa-1, using stitch types 304 or 404 for seaming, and stitching type EFd-1 for edge finishing.

## Custodians:

Army - GL  
Navy - NU  
Air Force - 45

## Preparing Activity:

DLA - CT  
Project No. 84GP-0022

## Review Activities:

Navy - MC, YD, SH, AS, MS  
Air Force - 32

Review information is current as of the date of this document. For future coordination of changes to this document, draft circulation should be based on the information in the current Federal Supply Classification Listing of DoD documents.

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## INSTRUCTIONS

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<b>I RECOMMEND A CHANGE:</b>		1. DOCUMENT NUMBER MIL-HDBK-156A	2. DOCUMENT DATE (YYMMDD) 950915
3. DOCUMENT TITLE MILITARY STANDARDIZATION HANDBOOK ON GLOSSARY OF MILITARY CLOTHING FABRICATION TERMS			
4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)			
5. REASON FOR RECOMMENDATION			
<b>6. SUBMITTER</b>			
a. NAME (Last, First, Middle Initial)		b. ORGANIZATION	
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a. NAME DEFENSE PERSONNEL SUPPORT CENTER ATTN: DPSC-FQSC (12-3-C)		b. TELEPHONE (Include Area Code) (1) Commercial 215-737-8103	(2) AUTOVON 444-8103
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