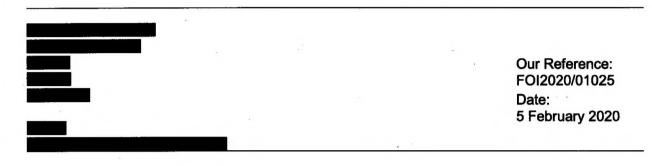


Defence Equipment and Support Secretariat Building C16, C Site Ministry of Defence Ploughley Road Lower Arncott Bicester OX25 2LD

Email: DES SEC-PolSec LE-JSC-WPNS@mod.gov.uk



Dear

Thank you for your email of 23 January 2020 requesting the following information:

### "Could you please provide me with a copy of DC/MS4440: Manufacturing Specification for SMOCK PARACHUTIST'S."

I am treating your correspondence as a request for information under the Freedom of Information Act 2000 (FOIA).

A search for the information has now been completed within the Ministry of Defence and I can confirm that all the information in scope of your request is held.

The information you have requested can be found in the attached specification (DC/MS/4440 Issue 08).

If you have any queries regarding the content of this letter, please contact this office in the first instance.

If you wish to complain about the handling of your request, or the content of this response, you can request an independent internal review by contacting the Information Rights Compliance team, Ground Floor, MOD Main Building, Whitehall, SW1A 2HB (e-mail <u>CIO-FOI-IR@mod.gov.uk</u>). Please note that any request for an internal review should be made within 40 working days of the date of this response.

If you remain dissatisfied following an internal review, you may raise your complaint directly to the Information Commissioner under the provisions of Section 50 of the Freedom of Information Act. Please note that the Information Commissioner will not normally investigate your case until the MOD internal review process has been completed. The Information Commissioner can be contacted at: Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire, SK9 5AF. Further details of the role and powers of the Information Commissioner can be found on the Commissioner's website at <a href="https://ico.org.uk/">https://ico.org.uk/</a>.

Yours sincerely

**Defence Equipment & Support** 

Defence Equipment and Support

### Defence Equipment & Support



### Manufacturing Specification for SMOCK, PARACHUTIST'S

### Defence Clothing (DC)

PROPERTY OF MINISTRY OF DEFENCE



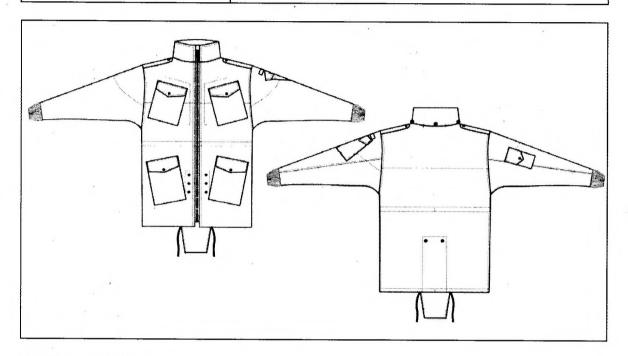
**Defence Equipment & Support** 

### THE PRODUCT

Item Description	NATO Stock No(s)	Pattern No (s)
Smock, Parachutist's Woodland DP	8415-99-132-4008 to 4021	21119B
Smock, Parachutist's Multi- Terrain Pattern	8415-99-418-3307 to 3320	21119B to guide

**Technical Support** 

**Defence Clothing** 



### IPR STATEMENT

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Technical documents in this specification refer to the edition current at the date of tender or contract unless otherwise stated.

### CROWN COPYRIGHT RESERVED

11 September 2012

### 1. ISSUE RECORD

Issue No	Comments	Issue Date
8	Care label updated	11 September 2012
	BS EN ISO 6330:2012 requirements updated.	
	Colour fastness requirements to cuff updated	
7	Requirement for fibre content added to labelling	07 February 2012
	Page 18 – Change to care label re-proofing clause	
	Page 21 – Main material changed for Woodland Smock from Multi-Terrain Pattern to Woodland Disruptive Pattern	
	Page 22 – Draw Cord Pattern No. changed from 9483D to 9483C or 9483E	*
6	Change of lining material from UK/SC/6526 Pattern No 8049A to UK/SC/5225 Pattern No 8806A due to non availability	27 October 2011
	Images standardised	
	Patch pocket grading removed and image amended to conform to standard pattern	
	Front internal pocket information reworded	
	Stitch type added to sleeve cuff (Page 24)	
5	Format updated	03 March 2010
	Addition of multi-terrain pattern	· · · · ·
4	Up dating of pattern number, removal of reference to IPT	17 June 2009
	Up date of technical detail	
3	Incorporating change of Materiel Spec ID for lining material from DEF STAN 83-48 to UK/SC/6526. (no change to material properties 8049)	30 July 2008
	Updated format – Pattern Piece Index removed	×
2	Amendment to formatting, wording, sizing schedule and diagrams incorporating agreed CWS changes	29 November 2005
	Incorporation of Technical Data Sheets at section 7	4
1	New specification derived from UK/SC/4440 Issue No.5	29 April 2004

### 2. BILL OF MATERIALS

Refer to Technical Data Sheets at Section 7

### 3. PATTERNS.

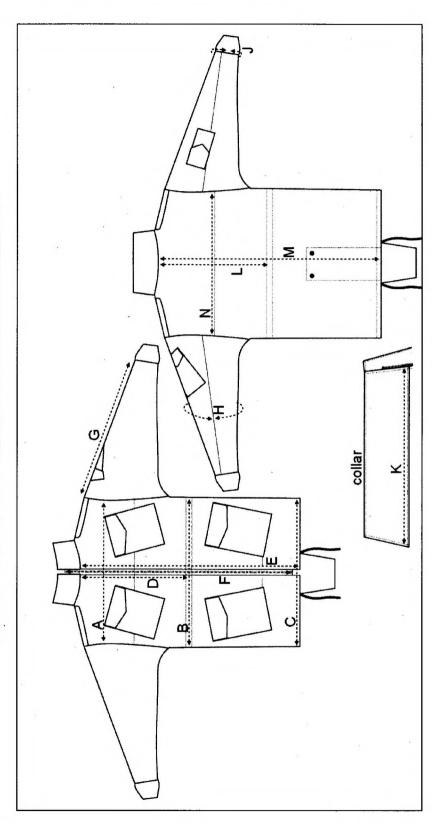
- a. <u>Master Patterns</u>: DC holds a Master Pattern for this product. Potential contractors may view the pattern on site by arrangement with the DC Commercial Department.
- b. <u>Standard Patterns</u>: A Standard Pattern may be obtained from the DC Technical Information Office and may be used to provide the criteria for all materials, components and manufacturing features not fully defined in this specification.
- c. <u>Electronic Patterns</u>: Electronic patterns in 'Gerber®' format, to guide for manufacture may be obtained from the DC Technical Information Office.

## 4. GARMENT SIZING

### SIZE CHART

## SMOCK, PARACHUTIST'S

# All measurements in centimetres: Garments fastened and laid flat



Page 5 of 24

**GARMENT SIZING continued** 

4

back at width of yoke seam Full 50 47 47 53 53 28 23 59 56 Z Outsize garments are to be made to the wearer's measurements to be supplied to the contractor. The Schedule is then to be used as a guide for the Length from collar To bottom edge seam at centre 0.5 15 78 Z 2 8 back neck channel centre of waist 10 4 41 47 20 \_ of collar sewing Length edge S 0.5 51 49 51 53 at 47 53 53 53 × 47 5 allowance at the chest and waist over the measurement of wearer and measurements not shown on the special form. Cuff at seam 0.5 -Width elbow ½ Around sleeve Sleeve length Measurements of Garment 0.5 49 51 49 51 53 T 47 53 53 5 Crown to Cuff inc. Knitted cuff 0.5 28 63 89 13 0 Length of fastener slide 74 80 88 LL. Z Length from collar Tobottom seam at Centre edge 0.5 73 76 82 88 ш front neck of waist channel centre <sup>2</sup> 38 4 4 0 4 Bottom CX2 146 146 162 138 154 2 3 138 46 162 162 170 2 Girth Waist Bx2 120 128 120 136 128 144 136 144 136 144 152 Chest at level of fastened Across pocket when top 47 51 55 59 55 55 4 51 47 55 59 63 Tolerances 180/104 Size Height/ Chest 160/104 160/96 170/88 170/96 180/96 160/88 170/104 170/112 180/112 190/104 190/112 190/120 ++

Page 6 of 24

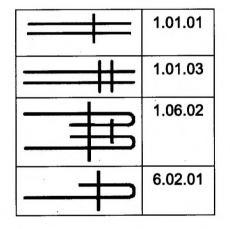
11 September 2012

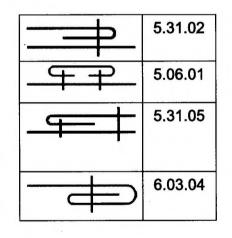
### 5. CONSTRUCTION

### SEAMS AND STITCHING to BS 3870

- Side, sleeve and shoulder seams, seam type 1.01.01 with edges over edge stitched together
- Single machine stitching 301 to have 8 to10 stitches per 2cm
- All seams lapped and top stitched 0.6cm from edge
- All raw edges finished using stitch type 502, 503, 504 or 505
- Front edge, crotch strap, inside chest pocket, shoulder straps, collar and pocket flaps stitched 0.6cm from the edge
- Buttonholes at least 22 stitches per 2cm, either bar tacked or taper barred
- Buttons sewn with at least 16 stitches through each hole
- Snap fasteners reinforced with stay of main fabric
- Ends of cord braided nylon heat sealed
- 1cm seam allowance throughout the garment

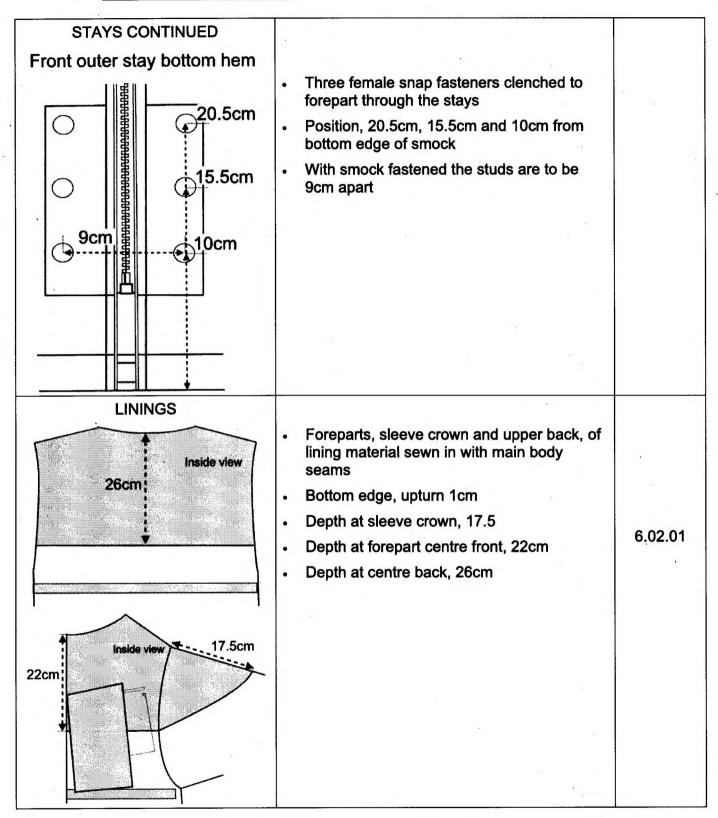
The following seam types are referenced in this specification



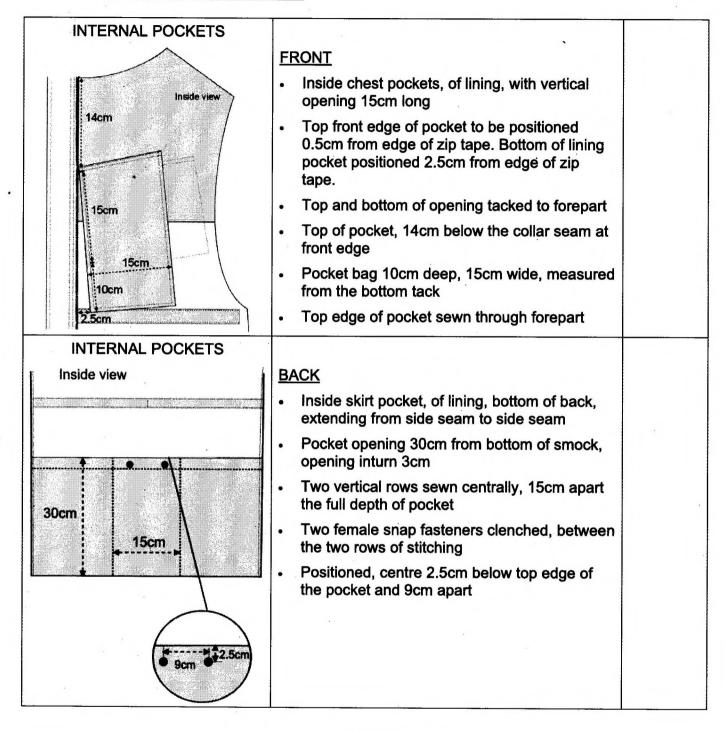


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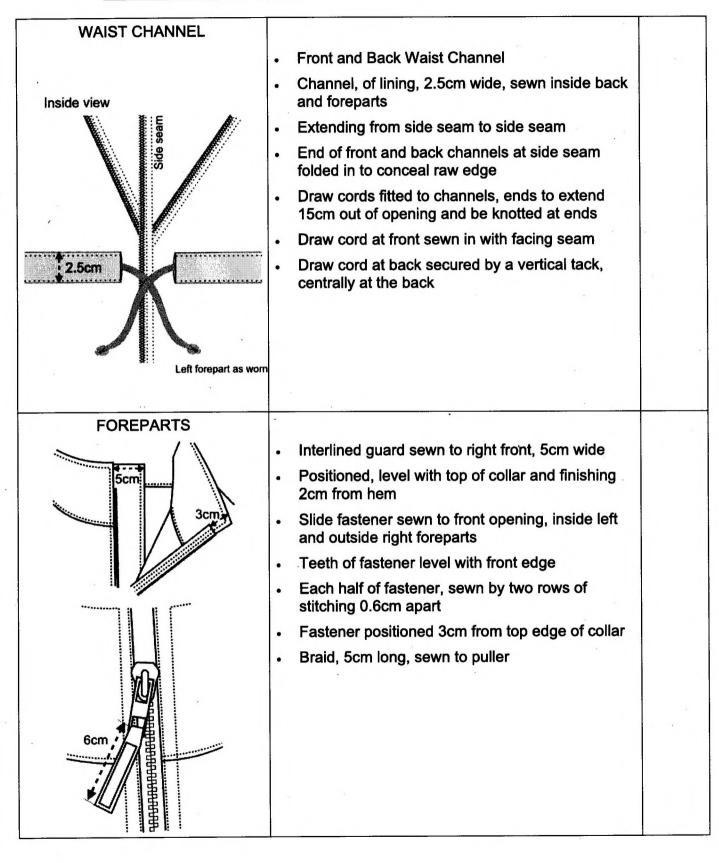
PART	DETAIL	BS 3870
	Single breasted with slide fastener closure	
	Stand collar and shoulder straps	
	<ul> <li>Two outer chest and hip bellow pockets with flaps</li> </ul>	
	Pivot style sleeves with knitted cuffs	
4.0 C	Bellow pocket with flap right sleeve	
	<ul> <li>Patch pocket with flap and union flag left sleeve</li> </ul>	
	<ul> <li>Buggy lining to upper back, sleeve crown and foreparts</li> </ul>	
	Two inside chest pockets	
	Skirt pocket inside lower back	
	Draw cords to waist and bottom hem	
	Crotch strap bottom of back	
STAYS		
Front inner button hem	<ul> <li>Hip pocket stay, lining, from front edge to side seam, 5cm wide</li> </ul>	
0	Stay of main material, 15cm long, 5cm wide	
	Sewn to foreparts, front edge of stay sewn in front edge	
	<ul> <li>Lower end of stay, 7cm from bottom edge of forepart</li> </ul>	
5cm		
0		
7cm		•



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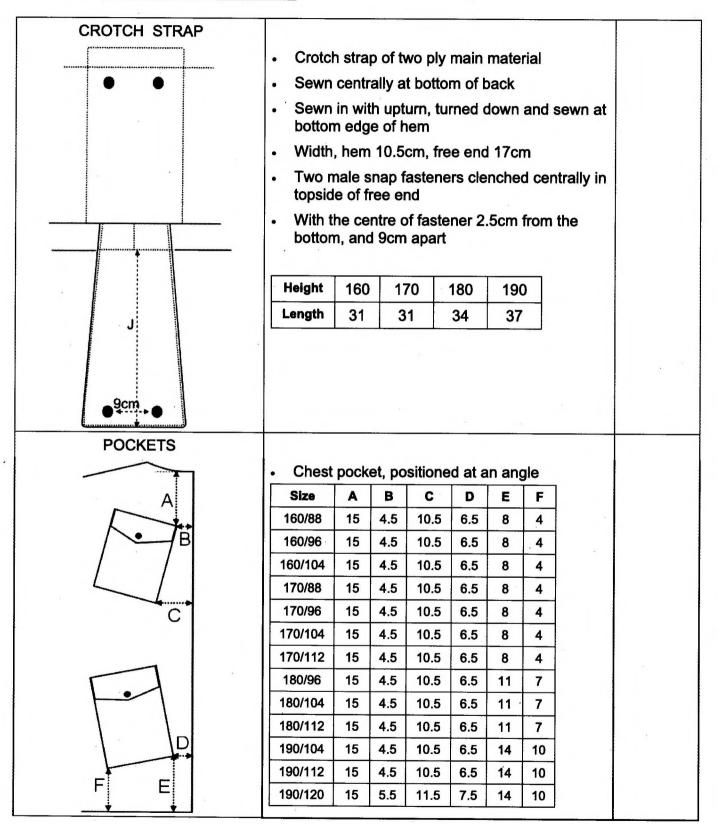


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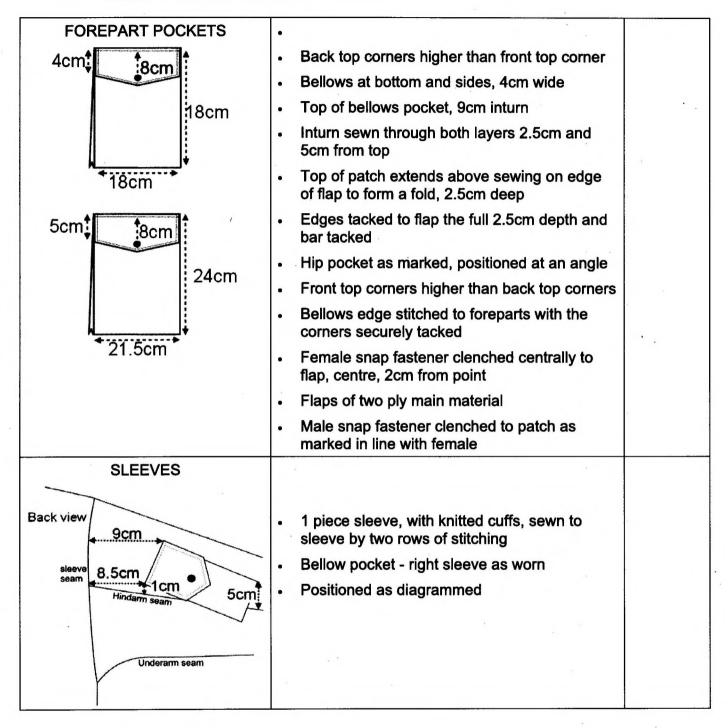


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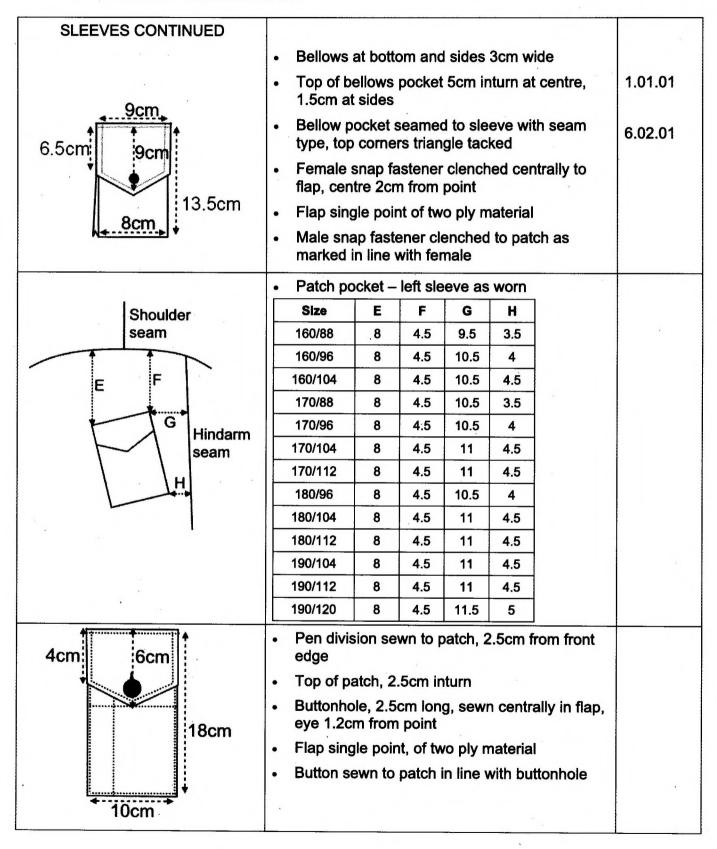
### 5. <u>CONSTRUCTION continued</u>



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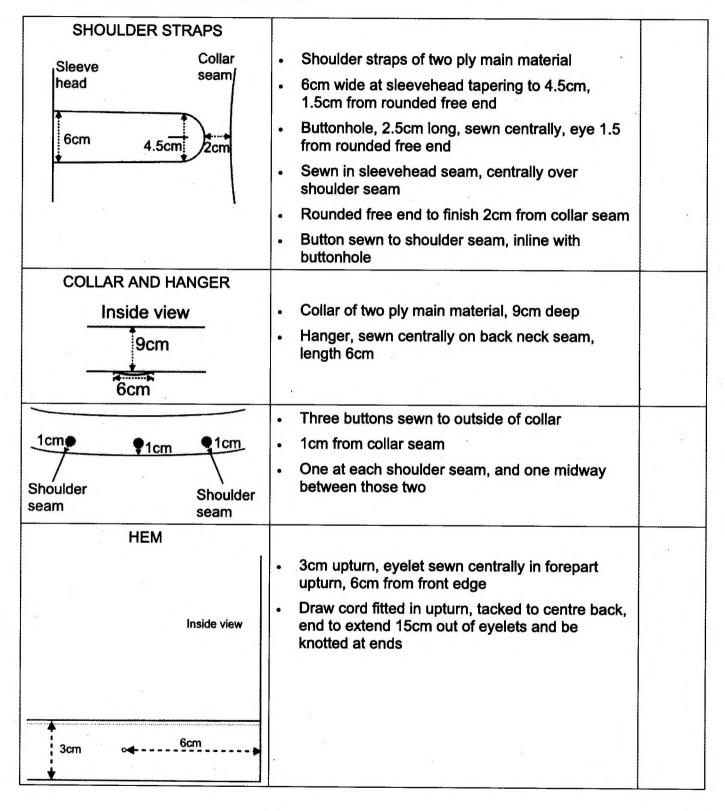
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SLEEVES CONTINUED	<ul> <li>Knitted cuffs, sewn to sleeve by two rows of stitching</li> <li>Measurements as below:</li> </ul>			1.01.03		
B	SIZE	Finished depth	Depth to cut relaxed includes 1cm seam allowance	Finished length around cuff seam circ. <b>B</b>	Width to cut relaxed includes 1cm seam allowance	
	160/88 160/69 160/104	8.3	18.6	24 26 28	22 24 26	
	170/88 170/96 170/104 170/112	8.3	18.6	24 26 28 30	22 24 26 28	
	180/96 180/104 180/112	8.3	18.6	26 28 30	24 26 28	
	190/104 190/112 190/120	8.3	18.6	28 30 32	26 28 30	
UNION FLAG						
Shoulder seam	Positi	oned:	ched to lef	t sleeve as	worn	
	• Cen	-	d with sho			
H H	• Bott flap		corner of fla	ag 0.5cm f	rom pocket	
A	alternativ	es such a cceptable	vely patter is an embro if the qual	oidered Ur	ion Flag	
					•	

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### 6. LABELLING REQUIREMENTS

Labels	Colour	Position
Identification and garment care labels	White	Attached centrally to the buggy lining 2.5cm below the collar

Washcare and size labels may be combined to produce one label

The main material fibre content is to be added to the identification label

### Identification Label

Information and format is to be as follows

### For Stock Sizes

Item name, NATO stock number, size, contract number, indication of position for wearer's name, number and fibre content; the size number is to be 0.6cm high

### Manufacturer Information

Under no circumstances should the contractor's name, logo or trademark appear on any form of labelling or garment bags.

### SPECIMEN LABELS

### **Identification Labels**

### Stock Sizes

SMOCK PARACHUTIST'S Woodland DP\* 8415-99-132-4014 Size Height/Chest 170/112 Contract No. Name: No: (Fibre content to be added here) <u>Outsize</u>

SMOCK PARACHUTIST'S
Woodland DP*
8415-99-132-4014
Name
No:
Contract No.
Name:
No:
(Fibre content to be added here)

\*Insert 'Woodland DP' or 'MTP' as appropriate to end item

### 6. LABELLING REQUIREMENTS continued

Care Label

	Care instructions	
Hot wash Full action		
$\mathbf{A}$	DO NOT BLEACH	
$\odot$	Tumble Dry at Higher Temperature	
E.	Warm Iron	
X	DO NOT DRY CLEAN	
	in water repellency, reproof able proprietary agent when required	

NATO Stock No.	Size No. Height/Chest
8415-99-132-4008	160/88
8415-99-132-4009	160/96
8415-99-132-4010	160/104
8415-99-132-4011	170/88
8415-99-132-4012	170/96
8415-99-132-4013	170/104
8415-99-132-4014	170/112
8415-99-132-4015	180/96
8415-99-132-4016	180/104
8415-99-132-4017	180/112
8415-99-132-4018	190/104
8415-99-132-4019	190/112
8415-99-132-4020	190/120
8415-99-132-4021	Outsize

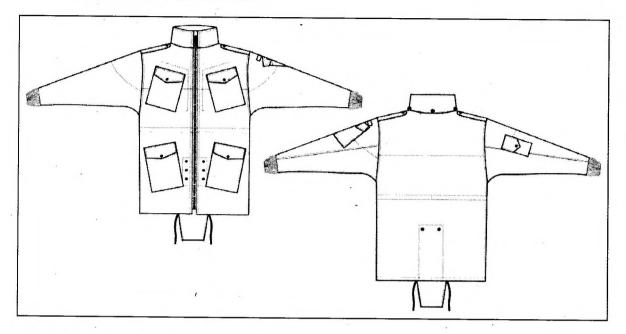
NATO Stock Numbers and Size for Woodland DP

### NATO Stock Numbers and Size for Multi-Terrain Pattern

NATO Stock No.	Size No. Height/Chest
8415-99-418-3307	160/88
8415-99-418-3308	160/96
8415-99-418-3309	160/104
8415-99-418-3310	170/88
8415-99-418-3311	170/96
8415-99-418-3312	170/104
8415-99-418-3313	170/112
8415-99-418-3314	180/96
8415-99-418-3315	180/104
8415-99-418-3316	180/112
8415-99-418-3317	190/104
8415-99-418-3318	190/112
8415-99-418-3319	190/120
8415-99-418-3320	Outsize

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### 7. TECHNICAL DATA SHEETS



### Smock, Parachutist's

Specification No.	DC/MS/4440
Item Description	SMOCK, PARACHUTIST'S, Woodland DP
Pattern No.	211198
NATO Stock No.	8415-99-312-4008 to 4021

### SCOPE

A smock made in Woodland DP cotton and polyester drill for use by army parachutists in temperate areas.

Specification No.	DC/MS/4440
Item Description	SMOCK, PARACHUTIST'S, Multi-Terrain Pattern
Pattern No.	21119B to guide
NATO Stock No.	8415-99-418-3307 to 3320

### SCOPE

A smock made in Multi-Terrain Pattern cotton and polyester drill for use by army parachutists in temperate areas.

.

### 7. TECHNICAL DATA SHEETS continued

Related specifications	Title	
BS EN ISO 105	Textiles. Tests for colour fastness	
Part B02	Colour fastness to artificial light. Xenon arc fading lamp test	
Part C06	Colour fastness to domestic and commercial laundering	
BS EN ISO 6330	Textiles. Domestic washing and drying procedures for textile testing	
BS EN 12590	Textiles. Industrial sewing threads made wholly or partly from synthetic fibres	
BS EN ISO 3758	Textiles. Care labelling code using symbols	
BS 3870 Parts 1 & 2	Stitches and seams	
BS 5742	Specification for textile labels requiring to be washed and/or dry cleaned	
UK/SC/4559	Slide fasteners, metallic and non-metallic chains	
UK/SC/4782	Cord, braided, nylon	
UK/SC/5121	Buttons, sewing various	
UK/SC/5225	Cloth, satin drill, cotton and polyester, FS, SF, WR	
UK/SC/5929	Badge Organisation Arm Union Flag	

### BILL OF MATERIALS

Fabric			
Reference	Description	NATO Stock No.	
Pattern 8806A to UK/SC/5225	SMOCK PARACHUTIST WOODLAND		
Pattern MAT0001A for shades and design	MAIN MATERIAL, LININGS, INSIDE BREAST POCKETS, WAIST CHANNEL, POCKET STAYS	1 ° 1 °	
	Cloth, satin drill, Cotton and polyester, Woodland Disruptive Pattern, FS, SF, WR		
Pattern No. 8806D to UK/SC/5225	SMOCK PARACHUTIST MULTI- TERRAIN PATTERN		
Pattern MAT0006B for shades and design	MAIN MATERIAL, LININGS, INSIDE BREAST POCKETS, WAIST CHANNEL, POCKET STAYS		
	Cloth, satin drill, Cotton and polyester, Multi-Terrain Pattern, FS, SF, WR		

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### BILL OF MATERIALS continued

	Light Olive	e to meet Pantone reference 18-08	20 TC
Components	Size/Colour	Reference/Description	Notes/NATO Stock No.
Draw cords	Green/Light Olive	WAIST, UPTURN, SLIDE FASTENER PULLER, HANGER Cord braided Nylon	Pattern No. 9483C or 9483E to UK/SC/4782
Interlining	210g/m <sup>2</sup> 19 ends and 16 picks per cm White	RIGHT FRONT FACING Cotton, plain weave, cross-linked finished	No more than 1% shrinkage in warp and weft when tested to BS EN ISO 6630 process 6N, Drying E
Fastener	Olive/Light Olive Length as schedule	FRONT OPENING Heavy weight, brass, non-glint, open ended, auto locking slider, top stops, 16mm wide stringer with a sealed end to retain a thin edge and prevent fraying	To UK/SC/4559
Snap fastener		Matt finish	As on standard pattern or suitable alternative approved by DC
Knitted rib	Olive/ Light Olive	CUFF Knitted wool	See Annex A
Buttons	19mm (30 ligne) Green/Light Olive	POCKET, EPAULETTES AND COLLAR Button, sewing, 4 hole	To meet the requirements of UK/SC/5121
Union Flag		SLEEVE HEAD Badge, Organisation Arm Union Flag	8455-99-978-8929 Pattern No 24805 to UK/SC/5929

### BILL OF MATERIALS continued

Thread	Olive/Light Olive	Polyamide, nylon 6.6 continuous filament	To BS EN 12590
	60's	SEWING BUTTONHOLES	
Thread	Olive/Light Olive	Polyester/cotton core spun	To BS EN 12590
	12's	BUTTON HOLE	Gimp
	36's	SEWING ON BUTTONS	
	180's	OVERLOCKING	
	50's	ALL OTHER OPERATIONS	
Identification/ Care label	White	Refer to section 6	BS 5742 Paragraph 3 and BS EN ISO 3758

### <u>ANNEX A</u>

### CUFFS KNITTED, WOOL

The cuff is to be knitted from two-fold worsted yarn, and the shade is to match Pantone shade 18-0820TC and the quality is to match the Standard Pattern garment. The cuff is to be a double layer of fabric, achieved by folding in the middle of its length, and it may be either flat knitted with an overlock side seam or circular knitted. The 'wrist section', when folded, is to be a 5-6cm length of 1x 1 rib having at least 8 courses per cm and the 'sleeve section' is to be a 5cm length of half cardigan construction. The ends of the inner and outer sleeve sections are to be joined with a three thread overlock seam (stitch type 504 of BS 3870) containing at least one thread of wool.

The width of the cuff, when in a relaxed condition, is to be 7-8cm at the wrist and 15cm at the sleeve and it is to be capable of being stretched in width by a further 8cm in both sections.

The minimum weight of ten pairs of the cuffs is to be 420g.

### Colour Fastness

The colour fastness of the cuffs is to be not lower than the ratings shown in Table 1 below:

### TABLE 1

ME	THOD OF TEST	
B	S EN ISO 105	
B02	CO6:C2S	
Light	Laundering	
Rating	Change	Stain
5-6	4	4

### COLOUR FASTNESS REQUIREMENTS