PRIVATE SPECIFICATION

Prepared for

The South African Navy

COLD WEATHER JACKET

(Ladies' windbreaker)

SAN 058

Revised June 2008

1. Scope

This specification covers the material, cut and make of cold weather jackets (windbreakers) for the female personnel of the South African Navy.

2. Definitions

acceptable: acceptable to the Directorate, Naval Logistics.

nominal: subject to the tolerances normal to good manufacturing practice.

3. Style

Tenderer's comments

- single breasted with three panel front
  - slide fastener front fastening
- two piece collar
- two inside breast pockets
- partially elasticized waistband
- one-piece long set-in sleeve
  - with adjustable cuffs
- back with yoke
- mitred shoulder straps
- fully lined
- detachable warm quilted lining
  - sleeveless

4. Illustrations

Detachable warm lining

5. Materials - General

No materials will be supplied by the SA Navy

- The materials specified in 6 and 7 are to be supplied and used by the manufacturer and their colour shall be an acceptable match to the colour of the outer material

A trim chart containing a sample of each component material (as given in 7) must accompany the pre-production samples

6. Outer material

The outer material shall:

- be a polyester-and-wool uniform fabric that complies with the requirements of table 1 and shall be shower proof and soil resistant with a fabric enhancer
- be a match, in terms of SANS 10076-5 "The assessment of defects in textile piece-goods and made-up articles – Part 5: Defects in woven woollen and worsted piece-goods", to colour No. 798c-04 "SAN Uniform black" of CKS 129 "Colour for textiles" (unless otherwise permitted by the South African Navy)

Tenderer's comments

Table 1 - Material requirements

1	2	3
Property	Requirement	SANS number (unless otherwise indicated)
Composition, %		1833-1 and 1833-4
Polyester	55 ± 5	
New wool	45 ± 5	
Weave	2/2 Twill	Visual examination and physical analysis
Mass per unit area (free from non-fibrous material), g/m², min.	257	79
Number of threads per cm [a], min.		7211-2
Warp	28	
Weft	26	
Breaking strength, N, min.		13934-1
Warp	320	
Weft	320	
Dimensional changes, %, max.		
Laundering [c] Warp and weft direction	3	960 procedure C
Non-fibrous material content, %, max.	3,5	5113
Resistance to pilling [d], rating, min.	3 (moderate)	6116
Colour fastness to:		
Light, rating, min.	4	105-B02
Washing [c], rating, min.		105-C10:2007 Test B(2)
Change in colour	4	
Staining	4	
Perspiration, rating, min.		105-E04
Change in colour	4	
Staining	4	

a) 2-fold yarn used.
b) Only applicable to dry-cleanable fabric.
c) Only applicable to washable fabric.
d) Tested after washing in accordance with SANS 11108, procedure B.

7. Component materials

Tenderer's comments

7.1 Lining

- an acceptable polyester lining
- shall comply with the requirements for type L61P of SANS 1387-7 "Woven cotton and similar apparel fabrics Part 7: Jacket linings

7.2 Interlining

- an acceptable fusible woven or non-woven interlining
- that complies with the requirements of CKS 627 "Fusible interlinings"
- suitable for use in garments that are dry-cleaned or hand washed
- shall be suitable for use in the collar, facings, waistband, cuffs and shoulder straps

The selection of interlining of appropriate mass per unit area to be determined by consultation with the supplier of the interlining.

7.3 Wadding

- an acceptable 100% polyester wadding
- of nominal mass per unit area 75g/m²

7.4 Elastic webbing

- woven elastic webbing
- complies with the requirements for type 1 of SANS 142 "Narrow elastic fabrics and strip" (unless otherwise permitted by the South African Navy)
- of nominal width 40 mm

7.5 Binding tape

- an acceptable bias binding cotton tape
- of finished width 25 mm

7.6 Slide fastener

- one-way open-end
- front opening
  - moulded synthetic elements with auto-lock sliders
  - shall comply to performance class C of SANS 1822 "Slide fasteners"
- detachable warm lining
  - spiral type fastener with auto-lock sliders
  - shall comply to performance class B of SANS 1822 "Slide fasteners"

Tenderer's comments

7.7 Touch and close fastener

- shall comply to the requirements of SANS 1823 "Touch and close fasteners"
- nominal width 20 mm

7.8 Buttons

- 4-hole plastics, rimmed buttons
- nominal diameter 14 mm
- dope-dyed
- fully impregnated

7.9 Threads

- to comply with relevant requirements of SANS 1362 "Sewing threads"

Sewing, buttonhole and top-stitching thread:

- polyester-and-cotton core-spun thread
  OR
- staple polyester thread
- ticket No. 80 (in both cases)

8. Workmanship

The jackets shall be:

- cut and made with first-class workmanship throughout
- of uniform and acceptable make, colour and finish

Shall be free from:

- defects, that affect their appearance or may affect their serviceability (or both)
- marks
- spots
- stains, incurred in the making-up

Seams and stitches shall be:

- smooth and uniform
- free from twists, pleats and puckers
- sufficiently extensible to avoid seam cracking and undue shrinkage in use

Ends of sewing shall be:

- trimmed and loose threads removed
- back-tacked if unsecured

9. Sizes

The patterns shall conform to the specification and shall be drafted by the manufacturer.

Jacket measurements:

MEASURING POINT		DESCRIPTION
A - A	Bust circumference	Measure at the base of the scye, with garment spread completely flat, and multiply by two.
B - B	Back length	Measure from the centre back neck seam to the bottom edge of the garment.
C-D-E	Sleeve length	Measure from the centre back, at yoke seam to the bottom edge of the cuff.
D - D	Back width	Measured across the width of the back at the yoke-to-back panel seam, from sleeve seam to sleeve seam.
F - F	Cuff circumference	Measure across the width at the bottom edge of the cuff, with the cuff fastened (to first button) and multiply by two.
G - G	Waist circumference	Measure across the width at the bottom edge of the waistband, with the waistband fully extended, and multiply by two.

Table 2 - size range

1	2	3	4	5	6	7	8
National Stock No.	Size designation[1]	Nominal, finished garment measurements, cm					
		Bust circumference	Back length	Sleeve length	Back width	Cuff circumference	Waist circumference
	Regular regular[2]						
8415-18-030-1168	77	102	58	74,4	40,5	21	90
8415-18-030-1172	82	107	58	74,5	41,5	21	95
8415-18-030-1175	87	112	59	75,5	42,5	22	100
8415-18-030-1179	92	117	59	76,5	43,5	22	105
8415-18-030-1186	97	122	59	78	45	23	110
8415-18-030-1192	102	127	59	79	46	23	115
8415-18-030-1202	107	132	60	80,5	47,5	24	120
8415-18-030-1209	112	137	60	81,5	48,5	24	125
8415-18-030-1215	117	142	61	83	50	25	130
8415-18-030-1220	122	147	61	84	51	25	135
	Regular long[2]						
8415-18-030-1227	87	112	61	78,5	42,5	22	100
8415-18-030-1233	92	117	61	79,5	43,5	22	105
8415-18-030-1237	97	122	62	81	45	23	110
6415-18-030-1243	102	127	62	82	46	23	115
8415-18-030-1248	107	132	63	83,5	47,5	24	120
8415-18-030-1250	112	137	63	84,5	48,5	24	125
6415-18-030-1253	117	142	64	86	50	25	130
8415-18-030-1257	122	147	64	87	51	25	135

1) Based on the chest girth, figure type and height, in centimetres of the intended wearer.
2) RR=Regular regular, RL=Regular long

Tenderer's comments

10. Make

Illustrations are not to scale and are for guidance only, and unless inconsistent with the text, all measurements are nominal.

Tenderer's comments

10.1 Fronts

Fronts shall:

- each have three sections
  - a yoke with its bottom edge 50 mm above the base of the scye
  - a bottom centre front panel
    - > of finished width 75 mm on size designation 87cm
    - > shall grade proportionally on the other sizes
  - a bottom side panel
  - yoke and panel seams shall be top-stitched 2 mm from the seams
- have a slide fastener opening at the center front
  - the appropriate stringer of the slide fastener shall be inserted between the facing and the front
  - shall extend from the gorge seam to the bottom of the waistband
  - shall have a 7 mm top-stitching along the front edge
- have a button
  - positioned at the shoulder area
  - in corresponding position to that of the buttonhole on the shoulder strap

Facing shall:

- be of outer material
- be lined with fusible interlining
- be of finished width 30 mm at the shoulder and shaped to 50 mm at the waistband seam
- have a pocket

Pocket shall:

- be a vertical welted pocket
- be of outer material
- be of finished length 14 cm and width 15 mm
- have a pocket bearer of outer material
  - of finished width 50 mm
- be positioned with the top edge of the pocket being 80 mm below the gorge seam on size designation 87 cm
  - shall be graded proportionally on the other sizes
- have a pocket bag of lining
  - of finished width and depth 15 cm and 13 cm respectively (measured at the base of the pocket mouth)

Tenderer's comments

Lining shall:

- correspond to the shape of the jacket (fully lined)
- fit snugly and seams to be smooth
- be attached to the facings, hem and cuffs
- have an appropriate stringer of a slide fastener
  - sandwiched between the facing-to-lining seam
  - extend 15 cm above the bottom hem of one front to 15 cm above the bottom hem of the other front
  - this slider is for attaching the detachable warm lining
- have an opening on the left and right front lining-to-facing seam
  - of length 70 mm
  - positioned at yoke seam level
  - this is for access for attaching badges
  - this opening shall be acceptably finished
- have a breast pocket on the right front

Breast pocket shall:

- be a patch pocket
- be of lining
- have a finished hem of depth 20 mm
- be of finished width and depth 14 cm and 16 cm respectively
- be turned-in 10 mm at the bottom and side edges
  - stitched down 1 mm from the turned-in edges
- be positioned adjacent to the slide fastener and the mouth opening in line with the scye
- have a female section of touch and close fastener
  - sewn along the full length of the pocket mouth on the outside
- be vertically bar-tacked over the full width of the hem

10.2 Back

Back shall:

- have a yoke at the back sleeve pitch position
- have a lower section without a centre back seam
- be top-stitched 2mm from the yoke and lower section joining seam

Facing shall:

- be of outer material
- be lined with fusible interlining
- be of finished width 30 mm around the back neck

Tenderer's comments

10.3 Collar

Collar shall:

- be a two piece collar
- be of outer material
- be lined with outer material
- be interlined with interlining (both top and under collar)
- have a collar stand
  - of finished depth at centre back 23 mm
  - shall extend 35 mm forward of the shoulder seam
- have a 50 mm fall
- be of finished length 70 mm at the front edges
- have a 7 mm top-stitching along the free edges
- be turned down into the stand and top-stitched 2 mm
- be manufactured to ensure a smooth fit over a shirt collar

10.4 Waistband

Waistband shall:

- be made-up in five sections
  - two centre front sections
  - one centre back section
  - two side sections
- be of double folded outer material
- be of finished width 40 mm
- be interlined with interlining (centre front and centre back sections)
  - shall have a 7 mm top-stitching at the bottom edge of the waistband
- have two side sections
  - of length 30 cm on size designation 87 cm (before being elasticised)
  - fitted with an appropriate length of elastic webbing
  - the circumference of the waistband shall stretch 20 cm
  - shall have three rows of stitches equidistantly spaced along the width of the waistband

10.5 Sleeves

Sleeve shall:

- be one-piece long, set-in sleeve
  - seamed under the arm
- have a cuff
- be folded 10 mm to the inside of the cuff
  - shall be bartacked
  - shall form a pleat when the cuff is fastened

Tenderer's comments

Cuff shall:

- be of double folded outer material
- be interlined with interlining
- be of finished width 65 mm
- be attached, leaving a 40 mm gap between the ends of the cuff (centralized at the back sleeve)
- be sandwiched between the sleeve and lining
- be edge-stitched 7 mm from the free ends
- fasten with buttons and buttonholes

Two buttonholes shall:

- be positioned 15 mm from the front edge and 25 mm and 50 mm respectively from the sleeve-to-cuff joining seam
- be of finished length 17 mm
- be horizontal
- be neatly made, gimped and barred

Four buttons shall:

- be positioned 15 mm and 40 mm respectively from the front edge and 25 mm and 50 mm respectively from the sleeve-to-cuff seam

10.6 Shoulder straps

Tenderer's comments

Shoulder strap shall:

- be of outer material
- be interlined with fusible interlining
- be lined with outer material
- have mitred ends
  - of finished width 55 mm at the sleeve seam tapering to 40 mm at the neck
- be positioned with the centre of the strap being 5 mm forward of the natural shoulder line
  - shoulder seam shall be top-stitched 2 mm towards the back
- be of minimum finished length 13 cm from the shoulder to the base of mitre
- have a buttonhole 20 mm from the mitred edge (in line with the base of the mitre)
  - of finished length 17 mm
  - neatly made, gimped and barred
  - centrally positioned
- be edge-stitched 7 mm from the free edges

Shoulder strap 5 mm forward of the shoulder line

10.7 Hanger loops

Hanger loop shall:

- be of double folded outer material or acceptable woven tape
- be of finished length and width 70 mm and 8 mm respectively
- be securely attached to collar stand at the centre back on the inside of the jacket

10.8 Detachable warm lining

Tenderer's comments

Detachable warm lining shall:

- consist of a layer of wadding sandwiched between two layers of lining
  - diamond shaped quilted with row of stitches spaced at 35 mm intervals
- be a back and two fronts (sleeveless)
- be approximately 25 mm shorter than the jacket when attached
- have a slit
  - of finished length 16 cm
  - positioned to correspond to the inside breast pocket
- have a male section of touch and close fastener
  - sewn to the bottom of the slit
  - corresponding to the female section on the breast pocket
- be bound at the armhole, fronts, bottom, neck and slit
- be fitted with appropriate stringer of a slide fastener
  - attached along the fronts and back neck (concealed when fastened)
    - shall correspond to accommodate the fastening of the cold weather jacket (windbreaker)

11. Stitches, seams and stitchings

Tenderer's comments

11.1 Stitches

All stitches: single needle lock stitch

11.2 Seams

Seams to be at least 10 mm wide (unless otherwise stated)

Underarm and side seams: seam type SSa-1 and pressed open.

Superimpose two plies of material and seam with one row of stitches positioned at the specific distance from the aligned edges and press open flat (open seam).

Attaching of cuffs and waistband, other seams: seam type SSa-1

Superimpose two plies of material and seam with one row of stitches positioned at the specific distance from the aligned edges.

Yoke seams and front panel seams, side and shoulder seams of warm lining: seam type SSa-2.

Superimpose two plies of material and seam with two rows of stitches positioned at the specific distance from the aligned edges.

Edges of warm lining: seam type BSc-1

Turn in both edges of the binding strip, fold it round the edge of a ply or plies of material, and seam with the appropriate number of rows of stitches.

Shoulder straps and collar edges: seam type SSe

Form seam type SSa-1, using two plies of material. Then turn back each ply at the seam and seam through the turned edges with the appropriate number of rows of stitches.

Tenderer's comments

11.3 Number of stitches

seaming: 40 ± 4 per 10 cm

edge and top stitching: 32 ± 2 per 10 cm

buttonholes: 12 ± 1 per 1 cm

buttons: 16 ± 1 per button

12. Packing, care-labelling and marking

12.1 Packing

The jackets shall be:

delivered in a commercially dry condition
so packed that they will not be damaged in transit or in storage
neatly folded and individually packed in a plastics envelope of suitable size and shape
unless otherwise specified in the order or contract, acceptably packed (in units of 10) for transportation in acceptable bulk containers that comply with the requirements of RSA-MIL-SPEC 296 "Corrugated board boxes for clothing"

Jackets:

of the same size designation to be packed together in a bulk container (unless quantities ordered are such that packing together of the same size only is not justified). of different size designations may also be packed together to accommodate the last part of an order or contract

12.2 Care-labelling

Each garment to have a woven or printed label that is permanently secured and that provides (in accordance with SANS 10011 "Care-labelling of textiles and clothing") correct and appropriate care instructions and the fibre composition of the fabric (in accordance with the requirements of SANS 10235 "Fibre-content labelling of textiles and textile products")
printed labels to comply with the requirements of SANS 1309 "Printed labels for textiles"
all care instructions shall be marked clearly in words and symbols on the label
all care-labels and their markings to be such that they outlast the garments

12.3 Marking

12.3.1 Jackets

Each jacket to have, secured centrally at the top of the inside breast pocket and centrally below the slit on the detachable warm lining a woven fabric label that complies with the requirements of SANS 1309 "Printed labels for textiles", and provides the following information in legible and indelible block letters of height at least 3 mm:

the manufacturer's name or trade mark or both

Tenderer's comments

the size designation
the National stock number
the year of manufacture

12.3.2 Envelopes

Each envelope to be clearly marked with the following information:

the designation, i.e "Cold weather jacket (Ladies windbreaker)"
the size designation
the National stock number

12.3.3 Containers

Each bulk container to have a label securely attached to the outside visible when the containers are stacked and providing information as specified in RSA-MIL-SPEC 296 "Corrugated board boxes for clothing"

12.4 Additional marking

When so required by the South African Navy, jackets, envelopes or containers (or any combination of these) to bear information additional to that specified above.

13. Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this specification. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of a standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards may be obtained from Standards South Africa.

RSA-MIL-SPEC 296, *Corrugated board boxes for clothing.*

CKS 129, *Colours for textiles.*

CKS 627, *Fusible interlinings.*

SANS 142 (SABS 142), *Narrow elastic fabrics and strip.*

SANS 1309, *Printed labels for textiles.*

SANS 1362, *Sewing threads.*

SANS 1387-7, *Woven cotton and similar apparel fabrics Part 7: Jacket linings.*

SANS 1822 (SABS 1822), *Slide fasteners.*

SANS 1823 (SABS 1823), *Touch and close fasteners.*

SANS 10011 (SABS 011), *Care-labelling of textiles and clothing.*

SANS 10076-5, *The assessment of defects in textile piece-goods and made-up articles Part 5: Defects in woollen and worsted piece-goods.*

SANS 10235 (SABS 0235), *Fibre-content labelling of textiles and textile products.*

Annex A
(normative)

Special conditions of tender

General

A-1 Unless otherwise stated, the South African Bureau of Standards, shall be the inspecting authority.

A-2 Three pre-production sample jackets, shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced. Each one of these samples shall be accompanied by a trim chart containing a sample of each component material (as given in 7) and the relevant certificates. It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The jackets shall be subject to inspection during the course of manufacture. The inspector shall, during normal working hours, be given all reasonable facilities for carrying out his duties and shall have the right of entry into the contractor's factory and the factory or works of any subcontractor where work on jackets supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished jackets for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-5 Before acceptance, the jackets shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

A-6 Any applications for deviations from drawings or the specification, or any laid down process, treatment or procedures as set out in this specification, must be made to the SA Navy Office, Pretoria.

Documentation

One container of each consignment shall be marked "Documents" and shall, in addition to the jackets, contain the following:

1) The packing slip/delivery note;
2) where applicable, the certificate(s) of conformance; and
3) a copy of the invoice containing the following:
   i) the order number
   ii) the financial authority number
   iii) a full description of the consignment, i.e items, size(s), quantity, etc.