INCH-POUND

MIL-DTL-44416
INT. AMENDMENT 1(GL)
4 April 1995

DETAIL SPECIFICATION

VEST, AIRCREW SURVIVAL

This interim amendment forms a part of MIL-V-44416(GL), dated 28 February 1991, and is approved for use by all departments and agencies of the Department of Defense.

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2.1.1, under "SPECIFICATIONS, MILITARY", Delete:
"MIL-C-7219 - Cloth, Duck, Nylon" and substitute:
"MIL-K-818 - Knife Pocket, General purpose. MIL-C-44043 - Cloth, Ballistic, Nylon, Light-weight, Water-repellent treated".

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2.1.1, under "SPECIFICATION MILITARY", Delete:
"MIL-C-83429 - Cloth, plain and basket weave, aramid".

AMSC N/A

FSC 8470

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3.3, line 2, after "drawings", Delete the period and add: "and patterns."

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3.3.3, Delete: "Cloth, duck, nylon. The nylon cloth used for the radio pocket back shall conform to type III, class 1 of MIL-C-7219. The color shall be Olive Green 106." and substitute: "Cloth, ballistic, nylon, light-weight, water-repellent treated. The cloth used for lining the radio pocket and radio pocket back shall conform to class 2, of MIL-C-44043."

3.3.8 Webbing, textile, textured or multifilament nylon., line 3, Delete: "type III" and substitute: "type IV".

3.3.10 Tape and webbing nylon., line 4, Delete: "type IV" and substitute: "type III".

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3.3.12 Fasteners, slide, interlocking., at the end, Add: "The slide fastener pull shall have a hole with sufficient size to accommodate a 1/4 inch wide thong. The thong shall have a minimum length of 3 inches folded."

Add as new paragraph:

"3.3.12.1 Tape, slide fastener. The slide fastener tape shall be 100% polyester, 3/4 +1/16 -1/32 inch wide; the color shall be Olive Green 106, and shall conform to V-F-106. The colorfastness requirement shall not apply."

Add as new paragraph:

"3.3.12.2 Slides. The slide shall be black, 3/4 inch wide, brass and conform to ITW Waterbury, part #00171-22. A quantity of two is required per vest."

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3.3.14, line 4, after "see", Delete: "6.4" and substitute: "6.5".

At the end of paragraph, Add:

"The dimension of the operators manual, shall be 5-1/2 inches long by 4 inches wide by 5/16 of an inch thick. A uniform distance around the perimeter shall be maintained between the border and the print. The staple, when placed, shall not obscure any of the print."

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3.3.15, at the end of paragraph, Add: "Six D-rings are required for each vest."

3.3.16, line 2, after "see", Delete: "6.5" and substitute: "6.4", and at the end of paragraph, Add: "Two V-rings are required for each vest."

3.3.17, at the end of paragraph, Add: "Two snap ejectors are required for each vest."

3.3.18, at the end of paragraph, Add: "One adapter is required for each vest."

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3.3.19, line 2, Delete: "chest" and substitute: "top loops of the leg", and line 3, at the end of paragraph, Add: "One piton is required for each vest."

TABLE I, Vest components. Delete: "Life preserver, underarm, LPU-10/P, pneumatic (4220-00-850-8655)   3.3.20.1   Each   1"

substitute:
"Knife, pocket, general
purpose (5110-00-162-2205)   MIL-K-818   Each   1".

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3.4, line 2, after "(see 6.2)", Delete: "the vest components shall have been manufactured within one year prior to the date of delivery." and substitute: "All components with an expiration date shall have a minimum of one year shelf life after date of assembly."

3.6.1 List of pattern parts, under "Nomenclature", Delete: "Radio set pocket back   1".

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3.6.1 List of pattern parts, under: "Material", Delete: "Cloth, plain weave, aramid" and substitute: "Cloth, ballistic, nylon, lightweight, water-repellent treated", and under "Nomenclature", delete: "Radio set pocket   1".

After, "webbing, textile, woven nylon,", Add to table:

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"Material	Nomenclature	Parts
Templates	Right front inside	0
	Left front inside	0
	Left front strap	0
	Left Front shoulder strap	0
	Right Front strap	0
	Right Front Shoulder strap	0
	4 point Stitch guide	0
NOTE: The following pattern parts are for back of vest, (clarity purposes)	Channel adjustment strap tunnel	0
	Left back shoulder strap	0
	Right back shoulder strap	0"

Page 11

3.8 <u>Fit.</u>, line 2-4, Delete: "The components required for the fit examination shall be obtained from the contracting activity (see 6.4)" and substitute: "Wood blocks meeting the dimensions specified below shall be used for the fit examination of the pockets. See Figure 1, for pocket number and component assignment.

Fit examination

Pocket Number	Component Number	Component Name	Block Dimensions (In.)
1.	1.	Signal, Smoke and Illumination	5-1/4 x 1-1/4 x 1
2.	2.	Radio Set	8 x 3-7/8 x 1- 1/2
3.	3.	Survival Packet, Type I	4 x 5 x 1-1/4
4.	4.	Compass, Magnetic	2-1/4 x 3-3/8 x 1-1/4
5.	5.	Mirror, Emergency Signaling	2-1/4 x 3-3/8 x 1-1/4
6.	6.	Survival Packet, Type II	4 x 5 x 1-1/4
7.	7.	Light Marker Distress	2-1/2 x 4-3/4 x 1
8.	8.	Paper, Chemical Agent	
8.	9.	Operator's Manual	
8.	10.	Signal Kit, Pocket Knife	5-1/4 x 5-1/4 x 1-3/4
9.	11.	Sea Dye Marker	5 x 2-3/4 x 1-1/2
10.	12.	Spare Pocket	5-1/4 x 1-1/4 x 1
11.	13.	Survival Packet, Type III	7 x 4 1-1/2
12.	14.	Survival Packet, Type IV	7 x 4 x 1-1/2"

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TABLE II, operation 1.b, line 2, Delete: "plain weave aramid" and substitute: nylon, ballistic lightweight, water-repellent treated".

Operation 1.e, line 2, Delete: "in the following lengths" and substitute: "in accordance with the patterns",

Reduce all (5) sizes by three inches:

Delete: " 57, 61, 65, 69, and 73" and substitute: "54, 58, 62, 66 and 70".

Operation 1.f, line 1 and 2, Delete: "in the following lengths" and substitute: "in accordance with the patterns".

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Operation 1.f, Cutting., reduce all (5) sizes by six inches:

Delete: "126, 128, 130. 132 and 134" and substitute: "120, 122, 124, 126 and 128".

Operation 1.h, line 3, Delete: "five" and substitute: "three".

After, operation 1.k, Add: "operation 1.l. The webbing for the LPU-21 attachment straps shall be cut 9 inches long (2 for each vest) and two, 2 inch reinforcement pieces."

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Operation 4.a, Delete: "At each of the first loop mid point measurements found on the following chart, fold the edges of the webbing together so that they meet at the middle of the webbing.

Size	Length	Toq loop	Bottom loop
X-small	126 inches	14-1/2 inches	32-1/2 inches
Small	128 inches	14-1/2 inches	32-1/2 inches
Medium	130 inches	14-1/2 inches	32-1/2 inches
Large	132 inches	14-1/2 inches	32-1/2 inches
X-large	134 inches	14-1/2 inches	32-1/2 inches"

and substitute: "Refer to pattern of size to determine top and bottom loop mid point measurements. The top and bottom loop shall extend 1 inch from the edge of the vest."

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Operation 4. d, line 1-4, Delete: "at the bottom loop midpoint, however, curl the edges over facing the opposite side of the webbing from the first." and substitute: "at the top loop. The folded edges of webbing shall be visible."

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Operation 5.a, under "STITCHES PER INCH", Delete: "10-12" and substitute: "8-10".

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Operation 5.c, line 3 and 4, Delete: "vertical stitch or place a 1 ± 1/16 inch", under "STITCH TYPE", Delete: "301 or", under "SEAM AND STITCHING TYPE", Delete: "SSa-2", under "STITCHES PER INCH", delete: "10-12" and substitute: "8-10".

Operation 5.d, line 3 and 4, Delete: "boxstitch with a 1-1/2 by 3/4 inch boxstitch.", and substitute: "stitch a 1-1/2 by 3/4 inch box-X stitch.", under "SEAM AND STITCHING TYPE", Delete: "LSb-2" and substitute: "EFb-1", under "STITCHES PER INCH", Delete: "10-12" and substitute: "8-10".

Operation 5.e, under "STITCHES PER INCH", Delete: "10-12 and substitute: "8-10".

Operation 6., under "STITCHES PER INCH", Delete: "10-12" and substitute: "8-10".

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Operation 7.a and 7.b, under "STITCHES PER INCH", Delete: "10-12" and "8-10".

Operation 8.a, under "STITCHES PER INCH", Delete: "10-12" and "8-10"

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Operation 8.c, line 1, Delete: "waist" and substitute: "chest" also, line 2, delete: "webbing" and substitute: "tape". Under: "STITCHES PER INCH", Delete: "10-12" and substitute: "8-10".

Operation 8.d, line 2, after "bartack", add: "1/4 inch".

Operation 9., line 3, after "the", Add: "back"
            line 4, after "the", Add: "front"
            line 5, delete: "tape." and substitute: "tape stitching through all plies of material." Under "STITCHES PER INCH", Delete: "10-12" and substitute: "8-10".

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Operation 10., "Attach chest adjustment strap.", and "11. "Attach leg straps.", Delete in its entirety.

Page 19

Add: new operation

"10. Attach leg straps."

Operation 10.a, line 1, Delete: "first" and substitute: "top"
line 2 and 3, Delete: "folded edges are outside
the loop and free end is underneath." and substitute: "strap is
superimposed, straddling the vest front."
line 4 and 5, Delete: "vest, just above the slide
fastener on the left side." and substitute: "as specified on
pattern. This shall result in the top loop extending $1 \pm 1/4$ inch
from top edge of the vest.".

Operation 10.b, under "STITCHES PER INCH", Delete: "10-12" and
substitute: "8-10".

Operation 10.c, Delete in its entirety and substitute: "Insert the
free end of the leg strap into the narrow slot of the "V" ring and
slide it all the way to the loop center."

Operation 10.d, Delete in its entirety and substitute: "Stitch
around the entire piece, of webbing in a box pattern, holding it to
the vest as indicated on pattern. This should result in the second
loop mid point falling $2 \pm 1/4$ inches below the bottom edge of the
vest.".

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Operation 10.e, and 10.f, under "STITCHES PER INCH", Delete:
"10-12" and substitute: "8-10".

Operation 10.g, Delete in its entirety.

Operation 10.i, line 4, after "point", Delete: "4" and substitute:
"3".

Operation 11., "Attach leg straps.", Delete in its entirety.

Add: new operation

"11. Attach chest adjustment strap."

Operation 11.a, line 3, Delete: "2 - 1/2" and substitute: "4".
Under "STITCHES PER INCH, Delete"10-12" and substitute: "8-10".

Operation 11.b, Delete in its entirety.

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Add: new operation

"12. Attach hook portion of fastener tape

Position the hook portion of fastener tape for the inside pockets on the body of the vest, as indicated on patterns. Stitch on all four sides 1/16 to 3/32 inch from the edge of tape."	301	LSbj-1	8-10	E	E

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Under operation "NO.", Delete: "12." and substitute: Operation 13.a, and 13.b, under "STITCHES PER INCH", Delete: "10-12" and substitute: "8-10".

Under operation "NO.", Delete: "13." and substitute: "14.". On line 1, Delete: "17 ± 1/8 inches long" and substitute: "within 1/8 inch tolerance". Under "SEAM AND STITCHING TYPE", Delete: "LSb-2" and substitute: "SSau-2". And under "STITCHES PER INCH", Delete: "10-12" and substitute: "8-10".

Under operation, Delete: "14. Attach waist adjustment straps.", in its entirety and substitute: Operation:

"15. Attach dee rings to bottom of vest.

Cut six 4-1/2 ± 1/8 inch pieces of 3/4 inch webbing. Attach one small dee ring on each piece, fold with 3/4 inch of one side folded under and box-X stitch with a 1/2 to 9/16 inch by 3/4 to 7/8 inch box-X stitch. The inner edge of the box-X stitch must penetrate through the webbing and raschel in locations indicated on patterns."	301	LSd-1	8-10	E	E

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Top of page, before operation, "14. Attach waist adjustment straps. (cont'd)", Add: new operation:

"16. Attach the LPU-21 attachments straps.

a. Fold one end of the webbing under 2 inches and stitch the folded end on the vest with a 1-1/2 inch Box-X stitch securing the 2 inch reinforcement piece (inside of vest).

b. Fold under the other end 1 inch in the opposite direction and stitch a 3/4 inch Box-X.

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c. Pull slide through webbing followed by the 3/4 inch D-ring. Fold over the D-ring and pull the webbing back through the slide. To ensure that the folded under edge faces the vest when in the finished configuration."

Under operation "NO.", Delete: "14." and substitute: "17.". Operation, "Attach waist adjustment straps." Delete: "(cont'd)", and Add the following paragraphs:

a. Diagonally cut the webbing for the tunnels for the waist adjustment straps 3-3/4 $\pm$ 1/8 inches, to match the shape indicated on the pattern. Position as indicated on the pattern and stitch the webbing to the inside of the vest on the diagonal ends.	301	LSbj-1	8-10	FF	FF
b. Align the bare end of the loop waist adjustment strap 3/4 inch in back of the side seam below the right armhole, 1/2 inch above the bottom edge of the vest. The loop fastener tape shall face the inside of the vest. Stitch to vest with a 1-1/2 by 1/4 inch box-X stitch.	301	LSb-2	8-10	FF	FF

Under operation "17.c", line 2, Delete: "12.b." and substitute: "17.b.", line 3, after "hook", Add: "fastener tape".

Operation, "15. Attach dee rings to bottom of vest." Delete in its entirety.

Under operation "NO.", Delete: "16." and substitute: "18.".

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Under operation "NO.", Delete: "16." and substitute: "18.", and operation 18.b. through 18.h., under "STITCHES PER INCH", Delete: "10-12" and substitute: "8-10".

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Under operation "NO.", Delete: "17." and substitute: "19.".

Operation 19.b., Delete: "The two pieces cut for radio set pocket shall be superimposed and overedged on all four sides." And substitute: "Superimposed oxford radio set pocket on top of nylon radio set pocket and overedge on all 4 sides, such that the nylon lining is on the inside of the pocket.".

Operation 19.c, line 1, Delete: "1/2" and substitute: "1/4".

Operation 19.d, line 2, after "mirror pocket", Add: "signal pocket, sea marker pocket,".

Operation 19.e, line 1, Delete: "seven".

Operation 19.a, through 19.e, under "STITCHES PER INCH", Delete: "10-12" and substitute: "8-10".

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Under operation "NO.", Delete: "17." and substitute: "19.".

Operation 19.(3), under "SEAM AND STITCHING TYPE", Delete: "LSd-2" and substitute: "LSd-1".

Operation 20.b., line 4 through 6, Delete: "Superimposed the two pieces cut for the radio set pocket and overedge on all four sides." and substitute: "Superimpose nylon radio set pocket back on top of oxford radio set pocket and overedge on all 4 sides, such that the nylon lining is on the inside of the pocket.".

Operation 19.(1) through 20.c., under "STITCHES PER INCH", Delete: "10-12" and substitute: "8-10".

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Under operation "NO.", Delete: "18." and substitute: "20.".

Under operation "NO.", Delete: "19." and substitute: "21.".

Operation 21.b., under "SEAM AND STITCHING TYPE", Delete: "EFa-1" and substitute: "EFb-1".

Operation 20.d. through 21.b., under "STITCHES PER INCH", Delete: "10-12" and substitute: "8-10".

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Under operation "NO.", Delete: "19." and substitute: "21.".

Operation 21.d., Delete in its entirety and substitute:

"d. Position the loop portion of fastener tape on each pocket, as indicated on patterns. Stitch on all four sides 1/16 to 3/32 inch from the edge of tape."	301	LSbj-1	8-10	E	E

Add new operation:

"e. Stitch the pockets directly to the vest, as indicated on patterns. Turn the edges of the pocket in 3/8 ± 1/8 and topstitch around the three sides 1/16 to 3/32 inch from the edge. For the small and x-small vest, refer to patterns."	301	LSd-1	8-10	E	E

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Add the following new operations:

"21.1 Make front slide fastener pull tabs.

   a. Cut thong for slide fastener 6 ± 1/4 inch length for all sizes.

b. Fabricate the thong to finish 1/2 inch wide by 3 inches long.	301	EFp-2	8-10	E	E

   c. Insert one end of the thong halfway through the tab. Fold ends together so they are even in length. Then sew a lengthwise 1/2 inch bartack, 1 inch from their ends.

21.2 Attach reinforced tape for ejector snap.

a. Thread tape for the reinforcement of the leg strap around the tension bar of the ejection snap until the ends are even. Stitch 1/2 ± 1/16 inch away from the bar.	301	SSa-2	8-10	E	E

   b. Thread leg strap through the adapter of the ejector snap.

c. At the end of the webbing turn under the end of $1 \pm 1/8$ inch, then turn onto itself 3 times and box stitch with a 1-1/2 by 3/4 inch box stitch.

	301	LSb-2	8-10	FF	FF

NOTE: The ejector snaps shall be threaded in such a manner that the release lever is facing away from the body and also the end has no twist in the strap.

22. <u>Connect Piton</u>

a. Insert Piton through the top two loops of the leg straps, as shown on Figure 1, components for vest, aircrew survival, item 16."

Under operation "NO.", Delete: "20." and substitute: "23.".

5.1.3. Delete: "Components, preserved as specified in Table V, shall be placed in the pockets of vest as specified in Figure 1. The life preserver shall not be attached to the vest." and substitute: "Components shall be preserved as specified in Table V."

Under TABLE V., Preservation of components, Delete:

"Life preserver, underarm, LPU-IO/P, pneumatic   MIL-L-38484   1/   5.1.3.6"

and substitute:

"Knife, Pocket General Purpose   MIL-K-818   5.1.3.8"

Under "Footnote 1/", Delete in its entirety.

5.1.3.6 <u>Life preserver</u>., Delete in its entirety.

Add new paragraph 5.1.3.8 the following:

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"5.1.3.8 Knife. The knife shall be unit packed in a plastic bag,
.003 inch thickness conforming to type I or type II, style I of
PPP-B-26."

5.2.1.2, line 1 and 2, Delete: "and life preserver,".

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5.2.2.2, line 1 and 2, Delete: "and life preserver,".

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Figure 1, "COMPONENTS FOR VEST, AIRCREW, SURVIVAL." Item number 3,
after "TYPE I" Add: "KNIFE POCKET, GENERAL PURPOSE".

Preparing Activity:
DLA - CT

(Project 8470 - A160)