

MIL-S-37988 (DLA-DM)
October 2, 1985

MILITARY SPECIFICATION

SURVIVAL KIT, INDIVIDUAL, Tropical, Tactical Air Crew, in Plastic Bag

This limited coordination military specification has been approved by the Defense Personnel Support Center, 2800 South 20th Street, Philadelphia, PA 19101, but has not been approved for promulgation as a coordinated military specification. It is subject to modification. However, pending its promulgation as a coordinated military specification, it may be used in procurement.

1. SCOPE

1.1 This specification covers a kit containing specified medical and survival items intended to sustain the lives of air crewmen under survival conditions in a tropical climate.

2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein:

SPECIFICATIONS

FEDERAL

L-P-378 - Plastic Sheet and Strip, Thin Gauge, Polyolefin

Beneficial comments (Recommendations, additions, deletions and any pertinent data which may be of use in improving this document should be addressed to: Defense Personnel Support Center, Directorate of Medical Materiel, DPSC-ATT, 2800 South 20th Street, Philadelphia, PA 19101 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 6545

MIL-S-37988 (DLA-DM)

SPECIFICATIONS

FEDERAL

- EE-M-101 - Match, Safety and Match, Non-Safety
(Strike Anywhere)
- UU-C-282 - Chipboard
- PPP-B-636 - Boxes, Shipping, Fiberboard

MILITARY

- MIL-C-5040 - Cord, Nylon
- MIL-C-43352 - Cloth, Netting, Nylon, Tulle, Tricot

MILITARY

- MIL-STD-105 - Sampling Procedures and Tables for
Inspection by Attributes
- MIL-STD-129 - Marking for Shipment and Storage

DRAWINGS

Defense Personnel Support Center (DPSC)

24357 Mosquito Headnet and Mittens

(Copies of specifications, standards, drawings and publications required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

3. REQUIREMENTS

3.1 Components. The survival kit shall consist of a Polyolefin plastic bag packed with the items listed on Figure 1.

3.1.1 Polyolefin Bag. The polyolefin plastic bag shall be NSN 8105-00-837-7754, BAG, PLASTIC, POLYOLEFIN, INTERLOCK SEAL CLOSURE FASTENING, 6 inches by 6 inches. The bag shall be furnished by the Government as indicated in 3.3.1.

3.2 Materials. When materials are not specifically designated, those used shall be of the highest commercial quality and entirely suitable for the purpose intended.

MIL-S-37988 (DLA-DM)

6545-01-120-2632
 SURVIVAL KIT, INDIVIDUAL
 TROPICAL, TACTICAL AIR CREW,
 IN PLASTIC BAG

CONTRACTOR
 CONTRACT NO.

LIST OF CONTENTS AND INSTRUCTIONS FOR USE

ITEM IDENTIFICATION	QTY	USE FOR	DOSAGE
Anti-Diarrhea Tablets Diphenoxylate Hydrochloride & Atropine Sulfate Tablets 6505-00-118-1914	10	Diarrhea	Take 2 Tablets 3 or 4 Times Daily.
Pain Killer Tablets Aspirin Tablets 6505-00-118-1948	10	Headache and Acute Pain	1 or 2 Tablets Every 4 hours up to Four Times a day.
Povidone-Iodine Ointment 6505-00-148-7096	10	Fungus Infections, Cuts, Bites, and Scratches	Apply to Skin as Required; for Insect Bites, Rub In.
Eye Ointment Sulfacetamide Sodium Ophthalmic Ointment, 6505-00-183-9419	1	Eye Irritation	Apply a small amount to inside of lower Eye Lid 4 Times in 24 Hours. DO NOT RUB EYE.
Anti-Malaria Tablets Chloroquine and Primaquine and Phosphate Tablets 6505-00-913-7905	2	Malaria Prevention	Take 1 Tablet Per Week With or After Food; Swallow-Do Not Chew.
Water Purification Tablets 6850-00-985-7166	50	Purifying Water	2 Tablets Per Qt. of Water. Shake Well. Wait 20 Min. Before Using.

FIGURE 1 LIST OF CONTENTS AND INSTRUCTIONS FOR USE

MIL-S-37988 (DLA-DM)

ITEM IDENTIFICATION	QTY	USE FOR
Skin-Closure Adhesive, Surgical, Porous, 1/4 by 4 inches 6510-00-054-7255	9	Closing Wounds.
Bandage, Gauze, Elastic, 2 Ply, 2 Inches by 5 Yards 6510-00-913-7906	1	Cut in Lengths as Required for Bandaging Injuries
Bandage, Adhesive, 3/4 by 3 Inches 6510-00-913-7909 (Band Aids)	12	Minor Cuts
Razor, Knife 6515-00-926-2089	1	Shaving Hair & Opening Wounds.
Bag, Food Sample 6695-00-118-2918	3	Carrying Water, Wrapping Food, Protecting Valuables From Moisture & Water.
V Soap	1	Cleansing
V Headnet & Mitten Set	1	Protection Against Insects.
V Saw, Flexible	1	Cutting Wood
V Matches, Safety, Humidity	20	Ignition of Combustible Material.
V WILL NOT BE RESUPPLIED; REPLACEMENT MUST BE OBTAINED LOCALLY		

FIGURE 1 (CONTINUED) LIST OF CONTENTS AND INSTRUCTIONS FOR USE

MIL-S-37988 (DLA-DM)

3.2.4 Polyethylene bags. The polyethylene bags used to contain individual components shall be fabricated of clear natural lay-flat tubing conforming to the requirements of L-P-378, type I, class 1. The minimum average wall thickness of the bag shall be 0.003 inch with no less than 80 percent of the nominal wall thickness at any point. Both seam and closure shall be heat-sealed to prevent moisture from entering or to prevent escape of fluid contents in the event of leakage; excess air shall have been excluded from the sealed bag so that bag conforms to the shape of the component therein. To insure a minimum of excess material, the width of commercially available tubing shall be of a dimension which shall closely fit the individual component to be enclosed. The length of the tubing between seals shall be the minimum to contain the component. Excess tubing beyond the seals shall be cut off. Each sealed bag containing an individual item shall be capable of passing the leakage test specified in 4.4.1

3.3 Kit contents.

3.3.1 Government furnished components. The components listed below shall be furnished to the contractor by the Government. The contractor shall determine that each component is readily identifiable. On receipt of the required quantity of each of the potency dated components, the contractor shall determine from the marked expiration date(s) that at least 12 months potency remains beyond his predetermined assembly date.

<u>NSN</u>	<u>Item Identification</u>	<u>Expiration Dated Potency (P) Items</u>
6505-00-118-1914	Diphenoxylate Hydrochloride and Atropine Sulfate Tablets, USP, 100s	P
6505-00-118-1948	Aspirin Tablets, USP, 0.324 Gram, 100s	P
6505-00-148-7096	Povidone - Iodine Ointment, 10%, 1/8 oz. (3.5 Grams), Individually Sealed, 144s	P
6505-00-183-9419	Sulfacetamide Sodium Ophthalmic Ointment, USP, 10%, 1/8 oz. (3.5 Grams)	P
6505-00-913-7905	Chloroquine and Primaquine Phosphates Tablets, 150s	*
6510-00-054-7255	Skin Closure Adhesive, Surgical, Porous 1/4 by 4 inches, 500s	P
6510-00-913-7906	Bandage, Gauze, Elastic, Two-Ply, 2 inches by 5 yards, 50s	

MIL-S-37988 (DLA-DM)

<u>NSN</u>	<u>Item Identification</u>	<u>Expiration Dated.. Potency (P) Items</u>
6510-00-913-7909	Bandage, Adhesive, 3/4 by 3 inches, 300s	*
6515-00-926-2089	Razor, Surgical Preparation, Straight Type, Small	
6695-00-118-2918	Bag, Food Sample, Polyethylene, Disposable, 18 fl. oz Capacity, 500s	
6850-00-985-7166	Water Purification Tablets, Iodine, 8 mg. 50s	**
8105-00-837-7754	Bag, Plastic, Polyolefin, Interlock Seal Closure Fastening, 6 inch by 6 inch 1000s	***

*Difference between predetermined date of assembly and date of manufacture shall not exceed 23 months.

**Not less than 12 months remaining from predetermined assembly date to retest date.

***Managed by General Services Administration (GSA).

3.3.2 Contractor-furnished items. The items specified herein shall be furnished by the contractor.

3.3.2.1 Bar of soap. The bar of soap shall be nominal 1/2 ounce (14 gram) bar of unscented, commercially-available soap, having nominal dimensions of 1/4 by 1-1/4 by 2 inches, and wrapped in paper, marked with the name of the contents, "SOAP". Commercial wrapping and marking shall be acceptable.

3.3.2.2 Headnet and mittens. The headnet and mittens shall consist of a mosquito-proof headnet and two mittens. The headnet and mittens shall be fabricated of black, nylon tulle tricot cloth conforming to the requirements of MIL-C-43352, class 2. Construction shall be in accordance with DPSC Drawing 24357. Finished dimensions shall be obtained without stretching the cloth.

MIL-S-37988 (DLA-DM)

3.3.2.3 Flexible saw. The flexible saw shall be fabricated from three $0.015 \pm .002$ inch thick steel strips. The two outer strips shall be $0.080 \pm .005$ inch wide and shall contain teeth. The inner strip shall be $0.050 \pm .005$ inch wide, and shall have no teeth. Each outer strip shall have approximately 16 teeth to the inch, each tooth having a depth of approximately 0.030 inches. The strips shall be laid flat and twisted together, the outer strips entwined about the inner strip, with a pitch 2 to 4 times their width. The inclined cutting teeth shall project in opposite cutting directions to provide cutting in any direction. The twisted saw blade shall have nominal $1/16$ inch core diameter. A 0.175 ± 0.010 inch inside diameter brass eyelet shall be permanently fitted to each end of the blade. The overall length of the saw, including eyelets, shall be 16 inches $\pm 1/2$ inch. The saw blade, including eyelets, shall be cadmium plated.

3.3.2.4 Matches, safety, humidity, resistant, 20s. The matches shall conform to the requirements of EE-M-101, type II, class 2. An assembled booklet shall be $2 \pm 1/8$ inches long, $1-1/2 \pm 1/8$ inches wide, and $1/4 \pm 1/8$ inch thick at the match tip end of the booklet.

The cover of each booklet of matches shall be legibly marked as follows:

MATCHES
Store in plastic bag
when not in use

3.3.2.5 List of contents and instructions. A list of contents and instructions for use shall consist of a list of components for the assembly and the quantity of each component. The list shall reflect the usage and dosage for each item, when applicable, as shown on Figure 1. The information shall be printed in black on both sides of one or more white cards. Printing shall be not less than 6 point standard upper case type size to assure legibility in reduced light. The name of the manufacturer or contractor, contract number, and National Stock Number shall be placed on the front of the first card. The printed cards shall be laminated in clear plastic. The laminated cards shall be no larger than 4-1/2 inches long by 3 inches wide, shall be completely sealed, and shall not separate. When two or more cards are required, the cards shall be stapled at the upper left corner with a monel staple. As an alternate, the foregoing information shall be printed with waterproof ink on a strip of waterproof paper. The paper shall be folded to form a pamphlet no larger than 4-1/2 inches long by 3 inches wide. The list of contents and instructions shall be capable of passing the test specified in 4.4.2.

3.5 Preparation for assembly. Preparation for assembly of the items designated herein shall be as follows:

MIL-S-37988 (DLA-DM)

3.5.1 Preparation of items furnished in strip form. The contractor shall detach the required number of tablets, as applicable, in a continuous strip from the strips furnished by the Government. Detached continuous aluminum foil strips shall be examined visually to insure that heat seals are not broken or foil is not torn before insertion in the kit. Strips of the following components shall be folded to form a packet of suitable size and secured in the middle by a neoprene rubber band:

<u>NSN</u> <u>Identification</u>	<u>No. in strip</u>	<u>Brief Item</u>
6505-00-118-1914	10	Diphenoxylate Tablets
6505-00-118-1948	10	Aspirin Tablets.
6505-00-913-7905	2	Chloroquine and Primoquine Tablets.

3.5.2 Preparation of other components.

3.5.2.1 Bag, food sample, polyethylene, disposable, 18 fl. oz., capacity, 500s. A unit of 500 food sample bags shall be opened. The contractor shall count out and stack 3 bags high with ties at the top. Each stack shall be folded on itself in such a manner that the 3 bottoms are aligned with the 3 tops, and then folded in half on itself again to form a package approximately 4-1/2 inches wide and 2-3/8 inches long. To secure the package, the 3 ties protruding from the right side shall be bent 180 degrees clockwise, and the 3 ties on the left side shall be bent 180 degrees counterclockwise.

3.5.2.2 Flexible saw. A loop 1-1/2 inches \pm 1/4 inch internal diameter, fabricated of olive drab No. 7 nylon cord conforming to type II of MIL-C-5040, shall be tied in each eyelet at the ends of the saw by means of a non-slippable knot. Core lines shall be removed from cord prior to forming loop. Strands of cord ends shall be fused. The complete saw shall be uniformly formed around 1/4 inch diameter mandrel into long, narrow loops making a flat unit 1/2 inch \pm 1/8 inch wide by 3-1/2 inches \pm 1/8 inch long. The formed saw shall be packaged in 3 inches \pm 1/8 inch by 4 inches \pm 1/8 inch chipboard folded along the centerline of the long side. The open side of the chipboard package shall be secured by a single staple. Chipboard shall conform to the requirements of UU-C-282, 0.026 inch average thickness. A label bearing the legend "SAW, FLEXIBLE, 16 inches Long" shall be adhered to the chipboard package. The chipboard package shall be sealed in a polyethylene bag as specified in 3.2.4. As an alternate, the label shall be inserted within the plastic bag used to contain the chipboard package in such a manner that it is legible through the bag.

MIL-S-37988 (DLA-DM)

3.5.2.3 Headnet and mittens. The completed mosquito headnet and mittens shall be folded and compressed into a rectangular package with the following maximum dimensions: 2-9/16 inches by 2-5/16 inches by 3/4 inch. Care shall be taken to prevent damage to the headnet and mittens in the compression process. Each compressed package shall be placed in a bag made of clear polyethylene as specified in 3.2.4. Closure shall be heat-sealed to prevent moisture from entering the bag. Each individual bag shall be marked with the legend: "Mosquito Headnet and Mittens, Nylon". As an alternate, the legend shall be printed on a label which shall be inserted in the plastic bag in such a manner that it is legible through the bag.

3.5.2.4 Povidone-Iodine Ointment. Each packet of povidone-iodine ointment shall be sealed in a polyethylene bag as specified in 3.2.4. Individually-sealed packets shall then be divided into two 5-packet lots. Each 5-packet lot shall be secured with a neoprene rubber band.

3.5.2.5 Other items. The following items shall be packaged in accordance with 3.2.4:

ITEM	QUANTITY PER BAG
Eye Ointment	1 Tube
Water Purification Tablets	1 Bottle (50 Tablets)
Skin Closure Adhesive	9 Strips
Bandage, Adhesive	12 Strips
Razor Knife	1
Soap	1 Bar
Matches	1 Booklet (20 Matches)
List of Contents & Instructions for Use	1

3.6 Assembly. The List of Contents & Instructions for use and all components listed in Figure 1 shall be packed in the polyolefin plastic bag in a neat and orderly manner to provide as flat a package as possible. The ointment and tablet items shall be placed in the center of the bag, surrounded by the remaining components for protection.

3.7 Workmanship. Workmanship shall be first class throughout. The individual components, as well as the completely assembled kits, shall be free from defects which detract from their appearance or may impair their serviceability.

MIL-S-37988 (DLA-DM)

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Records. Records of examinations and tests performed by or for the contractor shall be maintained by the contractor and made available to the Government, upon the Government's request, at any time, or from time to time, during the performance of the contract and for a period of three years after delivery of the supplies to which such records relate.

4.1.2 Inspection. Inspection, as used in this specification, is defined as both examination (such as visual or auditory investigation without the use of special laboratory appliances or procedures) and testing (determination by technical means of physical and chemical properties) of the item.

4.1.3 Certificate of quality. Certificates of quality, supplied by the manufacturer of the headnet and mittens, list of contents, matches, and polyethylene bags may be furnished in lieu of actual performance of testing by the contractor, provided lot identity has been maintained and can be demonstrated to the Government. The certificate shall include the name of the contractor, the contract number, the name of the manufacturer or supplier, the NSN, the item identification, the name of the component/material, the lot number, the lot size, the sample size, the date of testing, the test method, individual test results, and the specification requirements.

4.2 Sampling.

4.2.1 For examination. Sampling for examination shall be conducted in accordance with MIL-STD-105 and table I. Unit of product for examination purposes shall be one survival kit.

MIL-S-37988 (DLA-DM)

Table I. For examination

	Inspection level	AQL (percent defective)
For visual examination		
Major	I	1.0
Minor	I	4.0
For dimensional examination:	S-3	4.0

4.2.2 Sampling for tests. Sampling for tests shall be conducted in accordance with MIL-STD-105 and table II.

Table II. For tests

Component (Unit of product)	Characteristic	Requirement	Test procedure	Insp. level	AQL
Bagged components	Leakage test	3.2.4	4.4.1	S-2	4.0
List of contents and instructions	Immersion test	3.3.2.2	4.4.2	S-2	4.0

4.3 Examination. The survival kit shall be examined to determine compliance with requirements contained in this specification.

4.3.1 Classification of defects. Examination shall be conducted in accordance with the following table:

Table III. Classification of defects*

Categories	Defects
Major	
101	Any component missing.
102	Component quantity not as specified.
103	Labeling on component omitted or illegible.
104	Plastic bag containing component not properly sealed.
105	Plastic bag damaged.
106	Any component leaking, torn or broken.
111	Lists of contents and instructions incorrect or illegible.
Minor	
202	Excessive air trapped in sealed plastic bags.
203	Excessive plastic beyond heat seal on plastic bag not removed.

MIL-S-37988 (DLA-DM)

*Examination shall not be restricted to the classified possible defects listed above.

4.4 Tests. Tests shall be conducted to determine compliance with specification requirements.

4.4.1 Leakage test. All sealed, polyethylene bags, containing components shall be submerged to a depth of one foot in tap water for 15 minutes. Bags shall be removed, opened, and examined for evidence of leakage of water.

4.4.2 Immersion test. Two copies of the list of contents and instructions shall be fully immersed in tap water for 24 hours. There shall be no deleterious effects such as running ink or shreaded paper.

4.5 Packaging inspection. The inspection of the unit, intermediate package, packing and marking for shipment and storage shall be in accordance with quality assurance provisions of the applicable container specification and the marking requirements of MIL-STD-129.

5. PACKAGING

5.1 Preservation. Preservation shall be level A or C as specified (see 6.1).

5.1.1 Level A. Components comprising each kit shall be assembled in a plastic case as specified in 3.6.

5.1.2 Level C. Components shall be assembled as specified in 5.1.1.

5.2 Packing. Packing shall be level A or C as specified (see 6.1).

5.2.1 Level A. Forty-eight kits shall be packed in an exterior container designed for a type 2 load and constructed in accordance with PPP-B-636, type CF, class weather-resistant, grade V3c. Closure, strapping and waterproofing shall be as specified in the appendix of the box specification.

NOTE: Waterproofing and strapping shall not be required for shipments forwarded to a receiving activity within the continental limits of the United States for a storage and redistribution.

5.2.2 Level C. The level C packing for kits shall conform to the MIL-STD-794 requirements for this level.

MIL-S-37988 (DLA-DM)

5.2.3 Unitized loads. Unitized loads, commensurate with the level of packing specified in the contract or order, shall be used whenever total quantities for shipment to one destination equal 40 cubic feet or more. Quantities less than 40 cubic feet need not be unitized. Unitized loads shall be uniform in size and quantities to the greatest extent practicable.

5.2.3.1 Level A. Kits, packed as specified in 5.2.1 shall be unitized on pallets conforming to MIL-STD-147.

5.2.3.2 Level C. Kits packed as specified in 5.2.2. shall be unitized as specified in MIL-STD-794.

5.3 Marking

5.3.1 Levels A and C. Each kit shall be marked as specified in 3.4 and each exterior containers and unitized load shall be marked as specified in MIL-STD-129. Type II Shelf Life markings as specified in MIL-STD-129 shall be shown on exterior containers and unitized loads. The inspection test date shall be that of the item with the shortest remaining potency at the date of assembly.

5.3.2 Packaging inspection. The inspection of these packaging requirements shall be in accordance with 4.5.

6. NOTES

6.1 Ordering data. Procurement documents should specify the following:

- a. Title, number, and date of this specification.
- b. National Stock Number (NSN).
- c. Selection of applicable levels of packaging and packing (see 5.1 and 5.2).

6.4 The survival kit covered by this specification is listed in the Federal Supply Catalog as follows:

National Stock No.

6545-01-120-2632

Item Identification

SURVIVAL KIT, INDIVIDUAL, Tropical,
Tactical Air Crew, in Plastic Bag

Custodians:

Army-MD
Navy-MS
Air Fporce-03

Preparing Activity:
Defense Logistics

Agency-DM

Project No. 6545-0084