

MIL-S-36609B
 19 January 1977
SUPERSEDING
 MIL-S-36690A
 3 June 1975

MILITARY SPECIFICATION

SURVIVAL KIT, INDIVIDUAL, Tropical, Tactical Air Crew

This specification is approved for use by all Departments and Agencies of the Department of Defense.

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 the tropical climate of Southeast Asia (see 6.4).

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 |
| L-P-390 | - Plastic, Molding and Extrusion Material, Polyethylene, and Copolymers (Low, Medium and High Density) |
| L-P-512 | - Plastic Sheet (Sheeting) Polyethylene |

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to Headquarters, Defense Personnel Support Center, ATTN Directorate of Medical Materiel, Code 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

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SPECIFICATIONS

FEDERAL

- EE-M-101 - Match, Safety and Match, Non-Safety
(Strike Anywhere)
- UU-C-282 - Chipboard
- PPP-B-636 - Boxes, Shipping, Fiberboard
- PPP-T-60 - Tape, Packaging, Waterproof
- PPP-T-97 - Tape, Pressure-Sensitive Adhesive
Filament-Reinforced

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

STANDARDS

FEDERAL

- Fed.Std. No. 595 - Color

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)

- 24007 Survival Kit, Individual, Tropical,
Tactical Air Crew.
- 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.)

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3 REQUIREMENTS

3.1 Components The survival kit shall consist of a polyethylene plastic case packed with the items listed on Drawing 24007

- * 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.
 - * 3.2.1 Plastic for case The thickness of the plastic shall be 0.0625 inch \pm 0.006 inch. The plastic shall approximate color number 34087 of Fed Std No 595 (see 6.3). The cover of the case shall be made of polyethylene plastic conforming to the requirements of L-P-390 for type I, class L, grade 1. The bottom piece of the case shall be made of polyethylene plastic sheeting conforming to L-P-512 for type I, class L, grade 1.
 - 3.2.2 Tape for handles Tape for cover handle and bottom piece handle shall conform to the requirements of PPP-T-97, type IV, Color Black, 3/4 inch width. Exposed adhesive surfaces shall be covered by a suitable plastic tape. Handle lengths shall be: cover 7-1/4 inches, bottom piece 8-1/4 inches, tolerance \pm 1/4 inch.
 - 3.2.3 Tape for hinge The tape used to hinge components to the plastic case shall be a strip of nonhygroscopic pressure-sensitive tape 1-1/2 inches wide conforming to the requirements of PPP-T-60, type IV, class 1. Tape shall be a dark, lusterless color.
 - 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.
 - * 3.2.5 Pressure-sensitive adhesive The pressure-sensitive adhesive used to coat the designated inner surfaces of the bottom of the plastic case for adherence of components shall be National Starch and Chemical Corporation, Bondmaster Division No 86-611C or equal.

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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>
6505-00-118-1948	Aspirin Tablets, USP, 0.324 Gram, 100s	P
6505-00-118-1914	Diphenoxylate Hydrochloride and Atropine Sulfate Tablets, USP, 100s	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	*
6505-00-914-3593	Providone-Iodine Solution, NF, 10% 1/2 fl oz. (14.6 cc), 50s	P
6510-00-782-6426	Adhesive Tape, Surgical, Camouflaged, 1 inch by 1 yard, 100s	P
6510-00-913-7906	Bandage, Gauze, Elastic, Two-Fly, 2 inches by 5 yards, 50s	
6510-00-913-7909	bandage, Adhesive, 3/4 by 3 inches, 300s	*
6515-00-296-2529	Flexible Saw	
6515-00-926-2089	Razor, Surgical Preparation, Straight Type, Small	
6605-00-307-1322	Compass, Magnetic, Pocket, Survival	
6695-00-118-2918	Bag, Food Sample, Polyethylene, Disposable, 18 fl oz Capacity, 500s	
6840-00-142-8965	Insect Repellent, 1 oz.	
6850-00-985-7166	Water Purification Tablets, Iodine, 8 mg, 50s	**
7610-00-965-2487	Book, Hot-Wet Environment Survival Information, with Pencil	

*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.

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

3.3.2.1 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 DFSC Drawing 24357. Finished dimensions shall be obtained without stretching the cloth. The contractor shall package the headnet and mittens as specified in 3.5.2.3.

3.3.2.2 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 the drawing. 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. The complete contents and instructions shall be sealed in a polyethylene bag as specified in 3.2.4.

3.3.2.3 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 $2 \pm 1/16$ inches long, $1-1/2 \pm 1/16$ inches wide, and $1/4 \pm 1/8$ inch thick at the match tip end of the booklet. Each booklet shall be packaged individually in a bag made of clear polyethylene, as specified in 3.2.4. Closures of the bag shall be effected by heat sealing. Closures shall be well sealed to prevent moisture from effecting the matches. The cover of each booklet of matches shall be legibly marked as follows:

MATCHES

Store in plastic bag
when not in use

3.4 Construction of the case The plastic case kit container shall be fabricated of the materials specified in 3.2.1 and shall be equipped with tape handles (see 3.2.2). The case shall consist of a separate lay-flat bottom piece and a molded cover. The case shall be constructed in accordance with

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DPSC Drawing 24007, and as specified herein. The lay-flat bottom piece shall be diecut and scored to form a finished folded box. The cover of the case shall fit snugly and shall be easily removed from the bottom piece with the components fitted in accordance with the drawing. The plastic container shall be permanently and legibly marked. The size, type and color of the lettering on the surface of the cover shall be as specified on the drawing.

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

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 accordion-folded to form a packet of suitable size and secured in the middle by a neoprene rubber band.

<u>NSN</u>	<u>No. in strip</u>	<u>Brief Item Identifier</u>
6505-00-118-1948	10	Aspirin Tablets
6505-00-118-1914	10	Diphenoxylate Tablets
6505-00-913-7905	2	Chloroquine and Primaquine 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 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 + 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 + 1/8 inch wide by 3-1/2 inches + 1/8 inch long. The formed saw shall be packaged in 3 inches + 1/8 inch by 4 inches + 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 "6515-00-296-2529 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.

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.

* 3.5.3 Preparation of unprotected components The following unprotected components shall be packaged in a polyethylene bag as specified in 3.2.4:

<u>NSN</u>	<u>Brief Item Identification</u>
6505-00-183-9419	Sulfacetamide Sodium Eye Ointment (after removal from its individual carton.)
6505-00-914-3593	Povidone-Iodine Solution.
6840-00-142-8965	Insect Repellent, 1 oz.
6850-00-985-7166	Water Purification Tablets

3.6 Assembly. The survival kit shall consist of an assembly of the components listed in 3.1 installed in the plastic case specified in 3.4. The aluminum foil strip items shall be folded to fit the designated places. Only neoprene rubber bands shall be used to keep the strips folded. The items shall be placed in the case in the quantities specified in 3.1, and as noted in 3.6.1. DPSC Drawing 24007 shall serve as a guide in locating components; however, when necessary, the contractor may rearrange items.

3.6.1 Procedure for packing and assembly.

a. The shaded areas shown on the drawing of the flattened bottom of the polyethylene case are the only surfaces or the inside of the case designated for the application of adhesive. These areas shall be flame-treated by heating the surface with the apex of a gas flame, similar to the inner blue cone of a Bunsen burner flame, for about 2 seconds (plastic surface becomes glossy).

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b. The pressure-sensitive adhesive (see 3.2.5) shall be applied uniformly to the flame-treated surfaces. Minimum thickness of the coating while wet shall be 10 mils.

c. The component items shall then be fitted in or onto the adhesive-coated lay-flat bottom of the plastic case in accordance with the drawing. The list of contents and instructions and the survival book shall be joined together at the smaller dimension by pressure-sensitive tape specified in 3.2.5 in such a manner that the tape shall form a hinge. When necessary, pressure-sensitive tape may be used to hinge components shown adhered to the adhesive-coated surfaces in the drawing. After components have firmly adhered to the adhesive-coated surface, the bottom of the case shall be folded at the scored lines and assembled. Hinged components shall be flipped into position and the cover fitted to close the case. The contractor shall place a 2-1/2 inch by 1/4 inch neoprene rubber band within 1 inch of each end of kit.

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.

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 Certificates of quality. Certificates of quality, supplied by the manufacturer of the container, headnet and mittens, list of contents, matches, polyethylene bags, and tape for handles, may be furnished in lieu of actual performance of such 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 NSA, 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.

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	Inspection 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.

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- * 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
107	Color of case (cover and bottom section) not as specified.
108	Handles not securely adhered to appropriate case section.
109	Pressure-sensitive adhesive not uniformly applied to designated areas of the case.
110	Pressure-sensitive adhesive spills over edges onto the exterior container.
111	Lists of contents and instructions incorrect or illegible.
Minor	
201	Handle positioning not as specified
202	Excessive air trapped in sealed plastic bags
203	Excessive plastic beyond heat seal or plastic bag not removed.

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

- * 4.3.2 Dimensional examination The survival kit shall be examined for defects in dimensions. Any dimension not within the tolerance specified herein shall be classified as a defect.

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 inspector of the unit, intermediate pack- age, 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 PREPARATION FOR DELIVERY

5.1 Packaging Packaging 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 PPF-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 for- warded to a receiving activity within the continental limits of the United States for storage and redistribution.

5.2.2 Level C The subject commodity shall be packed in substantial com- mercial containers of the type, size and kind commonly used for the purpose, so constructed as to insure acceptance and safe delivery by common or other carriers, at the lowest rate, to point of delivery called for in the contract or purchase order

5.3 Marking Each kit shall be marked as specified in 3.4, and each ex- terior container shall be marked in accordance with MIL-STD-129.

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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).

6.2 Storing of compasses The contractor shall annotate the form DE-25C as follows:

"DEPOT TAKE NOTICE. The 6605-00-307-1322 compass component of NSN 6545-00-782-6412 Survival Kit, Individual, Tropical, Tactical Air Crew contains Promethium 147. All units of 6545-00-782-6412 shall be stored in accordance with provisions of Atomic Energy Commission License No. 37-10913-C2 for Promethium 147 used for compass markings "

6.3 Sample for color The bidder shall submit to the contracting officer a strip, approximately 3 inches by 4 inches, of plastic material to indicate the color and lustre of the fabricated case to be supplied.

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

<u>National Stock No.</u>	<u>Item Identifier</u>
6545-00-782-6412	SURVIVAL KIT, INDIVIDUAL, Tropical, Tactical Air Crew

6.5 The margins of this specification are marked with an asterisk to indicate where changes (addition, modification, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodians	Preparing activity
Army - MD	Defense Supply Agency - DM
Navy - MS	
Air Force - O3	Project No 6545-0031

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