

AD-A190 769

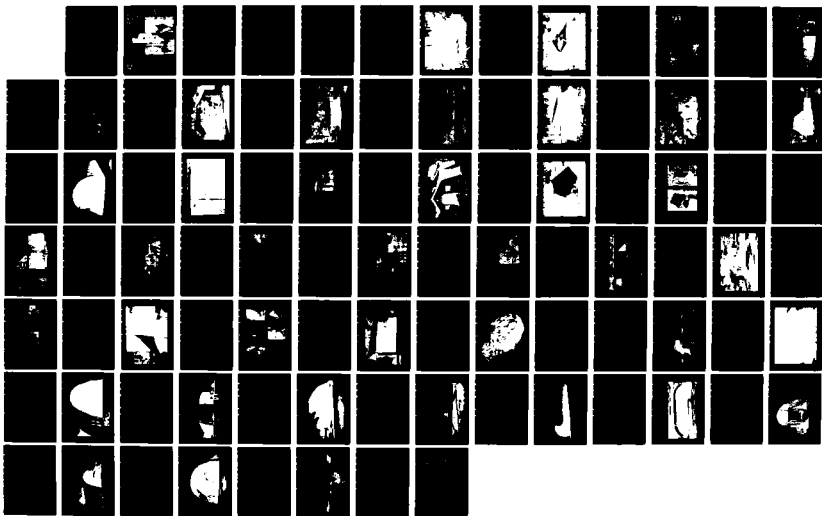
TENTAGE REFERENCE MANUAL (U) RRMV NATICK RESEARCH
DEVELOPMENT AND ENGINEERING CENTER MA DEC 87

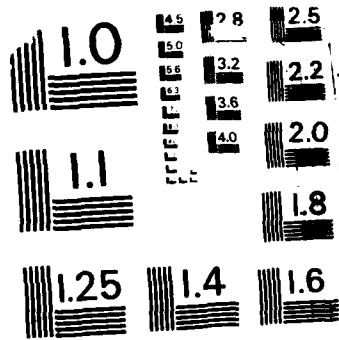
1/1

UNCLASSIFIED

F/G 15/5

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1983-

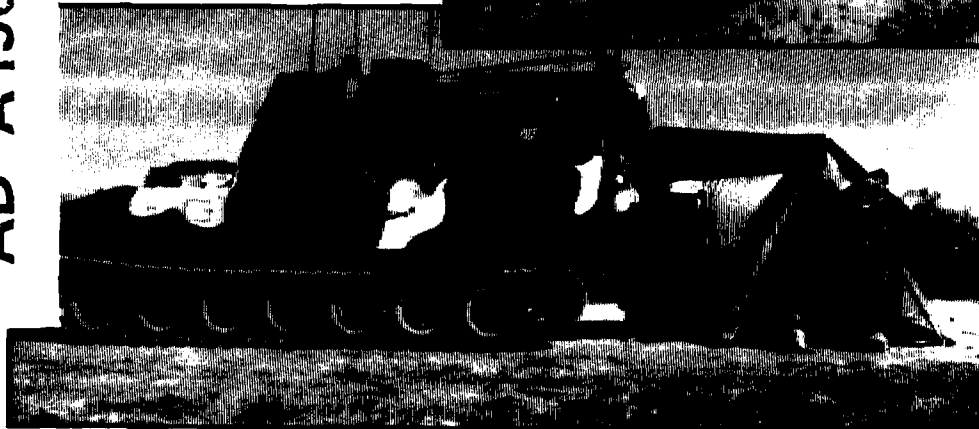
DTIC
ELECTE
JAN 20 1988



S H D
DTIC FILE COPY

Tentage Reference Manual

AD-A190 769



DECEMBER 1987



United States Army
Natick Research, Development and Engineering Center
Natick, Massachusetts 01760

DISTRIBUTION STATEMENT A

Approved for public release

87 12 11 077

FORWARD

This manual was prepared by the Tentage & Organizational Equipment Branch of the Combat Service Support Division, Aero-Mechanical Engineering Directorate, U.S. Army Natick Research Development and Engineering Center.

The manual describes standard and experimental tents designed to meet known or potential requirements. Included also are tents that are in the concept stage, commercially available shelters which show promise of military adoption and obsolete tents and shelters.

The purpose of this manual is to familiarize all DOD elements with the nomenclature, characteristics, purpose, etc., of the different types of shelters that are presently available. It is thought that the basic technical data provided for each shelter will be not only useful reference material, but will also be of assistance to other agencies in determining and selecting a shelter to meet a particular need. Further, it will serve to avoid the expenditure of unnecessary engineering or developmental funds and prevent duplication of shelters among the services. It is intended that this manual will be updated on a regular basis and serve to keep all DOD elements abreast of the latest developments in tents.



Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/	
Availability	
Dist	Avail and/or Special
A-1	

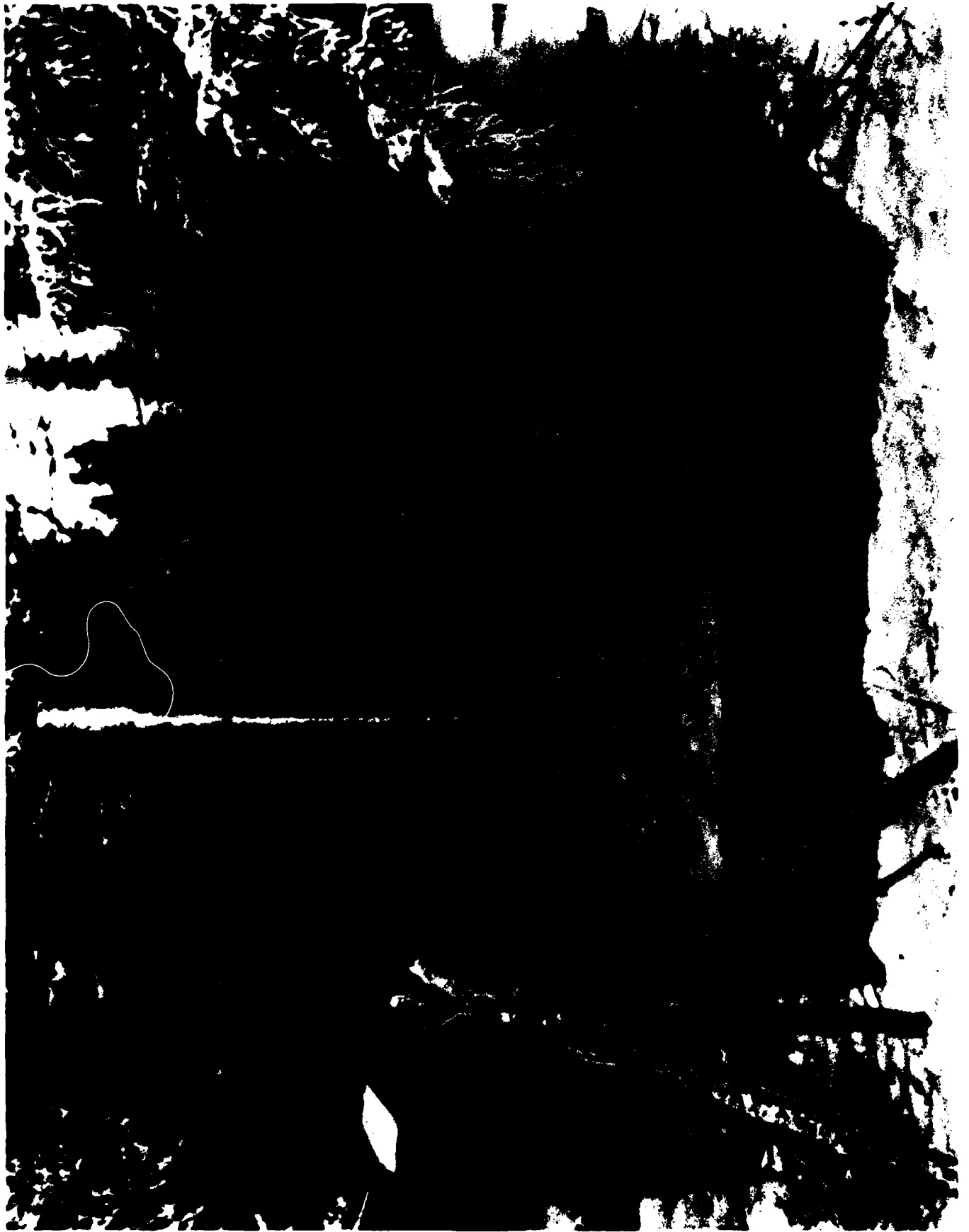
TABLE OF CONTENTS

	<u>Page</u>
 Standard Tents	
Tent, Hexagonal, Lightweight, M-1950	2-3
Tent, Arctic, 10-Man	4-5
Tent, General Purpose, Small	6-7
Tent, General Purpose, Medium	8-9
Tent, General Purpose, Large	10-11
Tent, Command Post, M-1945	12-13
Tent, Kitchen, Flyproof, M-1948	14-15
Tent Assembly, M-1942	16-17
Tent, Frame-Type, Expandable, 16' x 16'	18-19
Tent, Frame-Type, Insulated, Sectional, 16' x 16'	20-21
Tent, Maintenance Shelter	22-23
Tent, Frame-Type, Maintenance, Medium, Light Metal	24-25
Shelter System, Collective Protection, Chemical- Biological, Trailer-Transported, XM51	26-27
Air-Inflatable, Double Wall, Combat Support Hospital	28-29
Tent, Extendable, Modular, Personnel (TEMPER)	30-31
Shelter Half Tent	32-33
2 Man Mountain Tent	34-35
 Developmental Tents	
Hansen Weatherport	37
Vehicle Chemical/Biological Tent	38-39
Collective Protection Tent	40-41
Shelter Maintenance Transportable	42-43
Extension Shelter	44-45
Cold Weather Shelter System	46-47
Pressurized Rib Supported Battalion Aid Station	48-49
(M-51 Replacement)	50-51
Trailerless Collective Protection Shelter	52-53
Modified Lightweight Hexagonal Tent	54-55
Five Soldier Crew Tent	56-57
Standard Integrated Command Post Systems Tent	58-59
Individual Multi-Purpose Shelter	60-61

TABLE OF CONTENTS (Cont'd)

	<u>Page</u>
Obsolete Tents	63
Tent, Pop-Up, 5-Man (Tropical Climate)	64-65
Tent, General Purpose, Small (Experimental)	66-67
Shelter, Frame-Support Universal Field Maintenance	68-69
Shelter, Aircraft Maintenance, Extendable	70-71
Tent, Maintenance, Army Aircraft, Air-Supported,	72-73
with Auxiliary Rigid Frame	
Tent, Air-Supported, Radome, Nike Hercules System	74-75
Tent, Air-Supported, Nike Hercules, Above	76-77
Ground Launcher	
Tent, Single Wall, Air Supported, Storage	78-79
Tent Set, Air-Supported, Double Wall; Vehicle	80-81
Maintenance, Small	
Tent, Air-Supported, Double Wall, Aviation,	82-83
Maintenance, Medium, Sectionalized	
Tent, Air-Supported, Double Wall, Maintenance	84-85
Multi-purpose, Sectionalized (Pershing Missile)	
Tent, Air-Supported, Double Wall, Assembly Area,	86-87
Nike Hercules Mobile System	

STANDARD TENTS



1. Name of Shelter: Tent, Hexagonal, Lightweight, M-1950

2. Type of Shelter:

Non-Rigid
Pole-Supported

3. Current Status:

Standard

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This is a six-sided, pyramidal tent fabricated of 8.5 oz wind-resistant sateen and supported by a telescopic pole at the center of the tent. A stovepipe opening is located in one of the sides near the eave. A fire-resistant liner is provided to insulate the tent and prevent frost from falling on the occupants. Each side of the tent measures 6'7". It is 8'6" high at the peak with a wall height of 2'. The floor area is 113.2 sq ft and the complete tent including pins and poles weighs 56 pounds. The tent can be pitched by 5 men in 15 minutes and struck by 5 men in 10 minutes.

6. Concept of Use:

This is a special purpose tent intended to provide shelter for troops (5 men) operating in extremely cold or cold-wet areas.

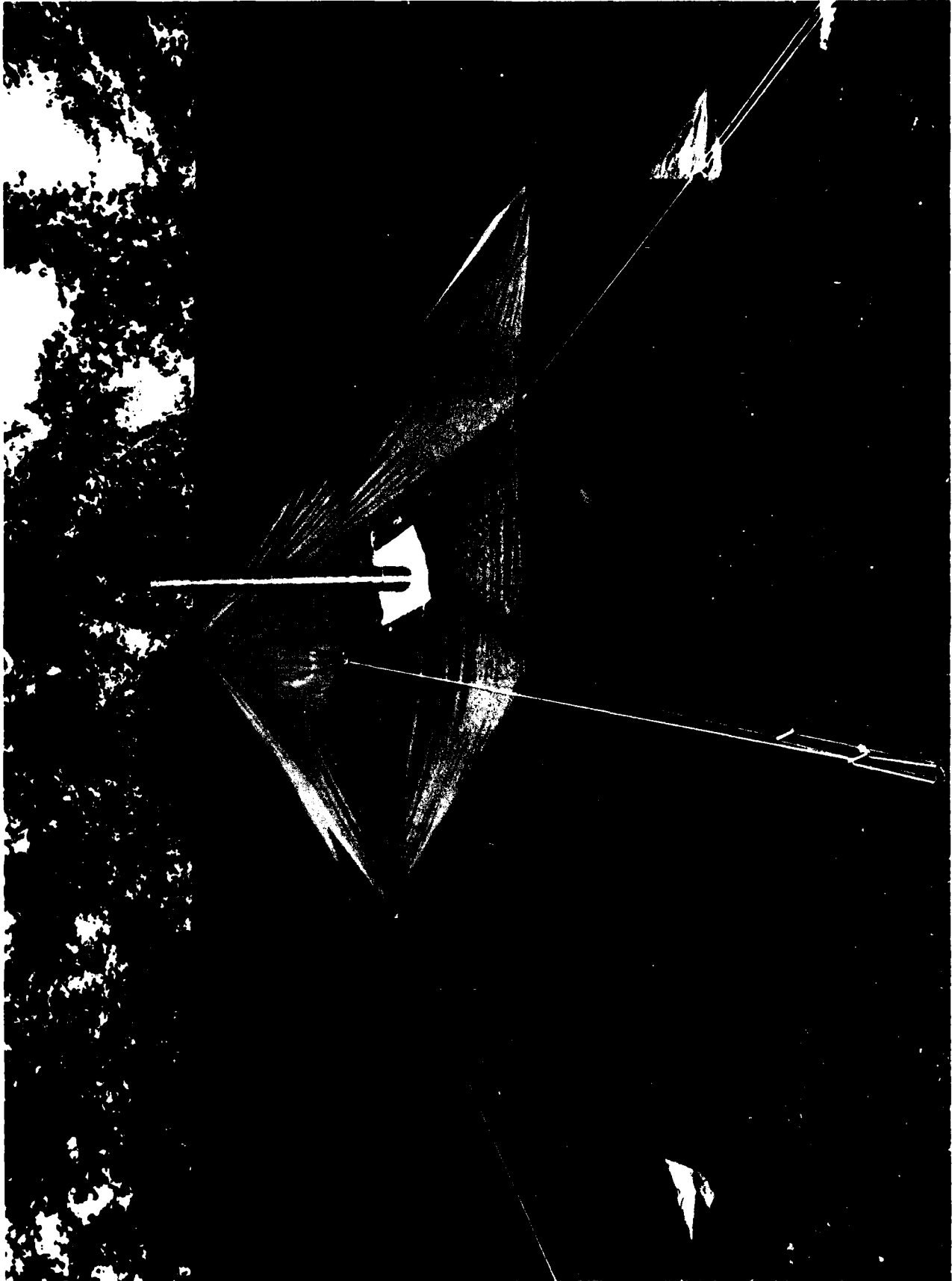
7. Logistical Data:

This is a Standard A item which maintains low usage due to its special purpose. The NSN for the Tent, Liner, Pins and Poles is 8340-269-1372 and the cost is \$714.65. The preceding stock number is for reference purposes only. The item is stocked and initially issued by components as follows:

8340-269-1374 - TENT, hexagonal; lightweight; w/cover	1 ea
liner; w/o pins, poles	
8340-261-9749 - PIN, TENT, 9 in lg	20 ea
8340-188-8413 - POLE, TENT, w/hardware; w/o cleats	1 ea

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item. The item had been found suitable in cold climates.



1. Name of Shelter: Tent, Arctic, 10-Man

2. Type of Shelter:

Non-Rigid
Pole-Supported

3. Current Status:

Standard

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This is a six-sided, pyramidal tent fabricated of 8.5 oz. cotton, wind-resistant sateen. A stovepipe opening is located in one of the sides near the eave. Both a front and rear entrance are provided with a lacing flap arrangement to permit erection of tents in tandem. A fire resistant liner is provided to insulate the tent and prevent frost from falling on the occupants. Each side of the tent measures 8'9". It is 8'6" at the peak, with a wall height of 3'. The floor area is 200 sq ft and the complete tent weighs 76 pounds including pins and poles. The tent can be pitched by 6 men in 27 minutes and struck by 6 men in 18 minutes.

6. Concept of Use:

This is a special purpose tent designed to provide shelter for 10 men and their equipment under arctic conditions.

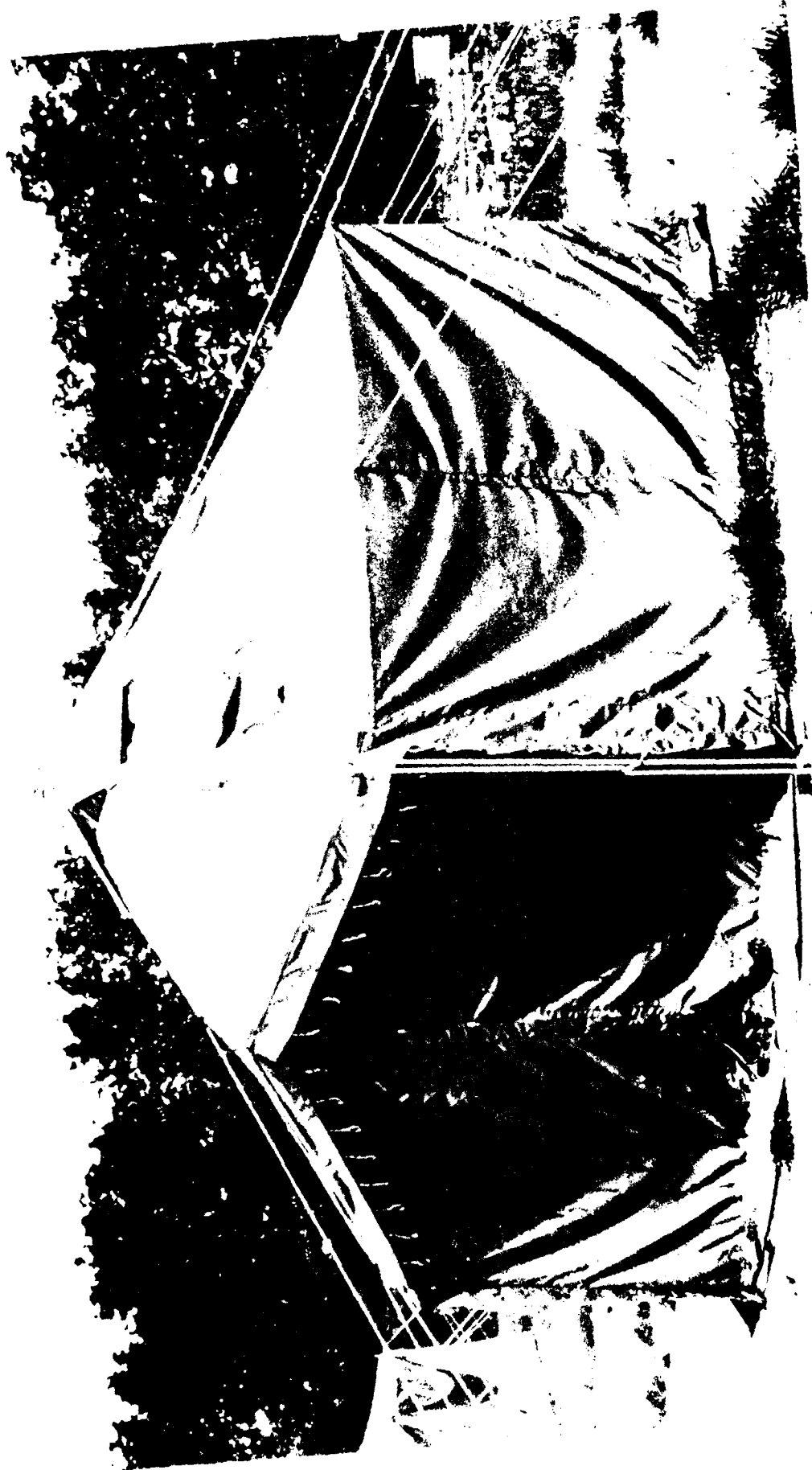
7. Logistical Data:

This is a Standard A item. The NSN for the Tent, Liner, Pins and Poles is 8340-262-3685 and the cost is \$1241.20. The preceding stock number is for reference purposes only. The item is stocked and initially issued by components as follows:

8340-262-3684 - TENT, arctic, 10 man, w/cover	1 ea
liner, w/o pins and poles	
8340-261-9749 - PIN, TENT, 9 in lg	28 ea
8340-188-8413 - POLE, TENT, w/hardware, w/o cleats	1 ea

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item. The item has been found suitable in cold climates.



1. Name of Shelter: Tent, General Purpose, Small
2. Type of Shelter: Non-Rigid Pole-Supported
3. Current Status: Standard

4. Responsible Engineering Activity:
U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:
This is a six-sided, pyramidal tent fabricated of 9.85 oz. cotton duck. The tent is supported by eight adjustable poles. Each side of the tent measures 8'8" long. The eave height is 5' and the peak height is 10'6". The floor area is 200 sq. ft. The tent, liner, pins and poles weigh 186 pounds. The tent can be pitched by 4 men in 30 minutes and struck by 4 men in 15 minutes.

6. Concept of Use
Intended for use in temperate and tropical zones as a command post, fire direction center, battalion aid station, or for any general purpose use. The tent can be transported by vehicle or aircraft.

7. Logistical Data:
This is a Standard A item which maintains high usage and is in stock at Army depots. The NSN for the tent is 8340-753-6571 and the cost is \$1029.15. A liner and vestibule are available as separate items of issue. The preceding stock number is for reference purposes only. The item is stocked and initially issued by components as follows:

8340-261-9740 - PIN, TENT: 9 in lg	29 ea
8340-753-6574 - POLE, TENT: 8 ft 6 in to 10 ft 6 in lg	1 ea
8340-753-6575 - POLE, TENT: 3 ft to 5 ft to 7 ft lg	8 ea
8340-753-6570 - TENT: general purpose, small w/cover	1 ea

ALSO STOCKED FOR ISSUE

8340-262-3698 - TENT LINER	1 ea
----------------------------	------

NOTE: When required to provide insulation from cold and/or reduce radiation from the sun

8340-753-6573 - VESTIBULE, TENT	1 ea
---------------------------------	------

NOTE: When required for attachment of two tents in tandem, to provide blackout protection and for use to prevent entrance of cold air into the tent

REQUIRED FOR ERECTION OF VESTIBULE

8340-261-9749 - PIN, TENT: 9 in lg	12 ea
8340-753-6575 - POLE, TENT: 3 ft to 5 ft to 7 ft lg	2 ea

8. Remarks:
An improved G.P. Small tent made from polyester duck has been developed which provides lighter weight (164 lbs vs. 186 lbs), increased service life and improved habitability. Development efforts were completed in 2Q87. Specifications and drawings are being prepared for procurement of the item by DPSC, Phila. Type Classification/Assignment of NSNs is in process.



1. Name of Shelter: Tent, General Purpose, Medium
2. Type of Shelter: Non-Rigid
Pole-Supported
3. Current Status: Standard

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This is a rectangular, hip-roofed, pole-supported, medium sized, general purpose tent, made of 9.85 oz cotton duck. Each end is provided with a 4' wide door. A liner is available as a separate item of issue. The liner contains both fabric and screening sidewalls for insulation and ventilation. The tent is 16' wide, 32' long, 10' high and 5'6" at the sidewalls. The complete tent weighs 569 pounds including pins and poles. The tent can be pitched by 4 men in 40 minutes and struck by 4 men in 30 minutes.

6. Concept of Use:

To be used for personnel housing, fire direction centers, some command posts, mess tents, storage or any other general purpose as required. It will provide protection against environmental conditions.

7. Logistical Data:

This is a Standard A item and is in stock at Army depots. The NSN for the tent, poles and pins is 8340-543-7788 and the cost is \$1,128.10. A liner is available as a separate item of issue. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

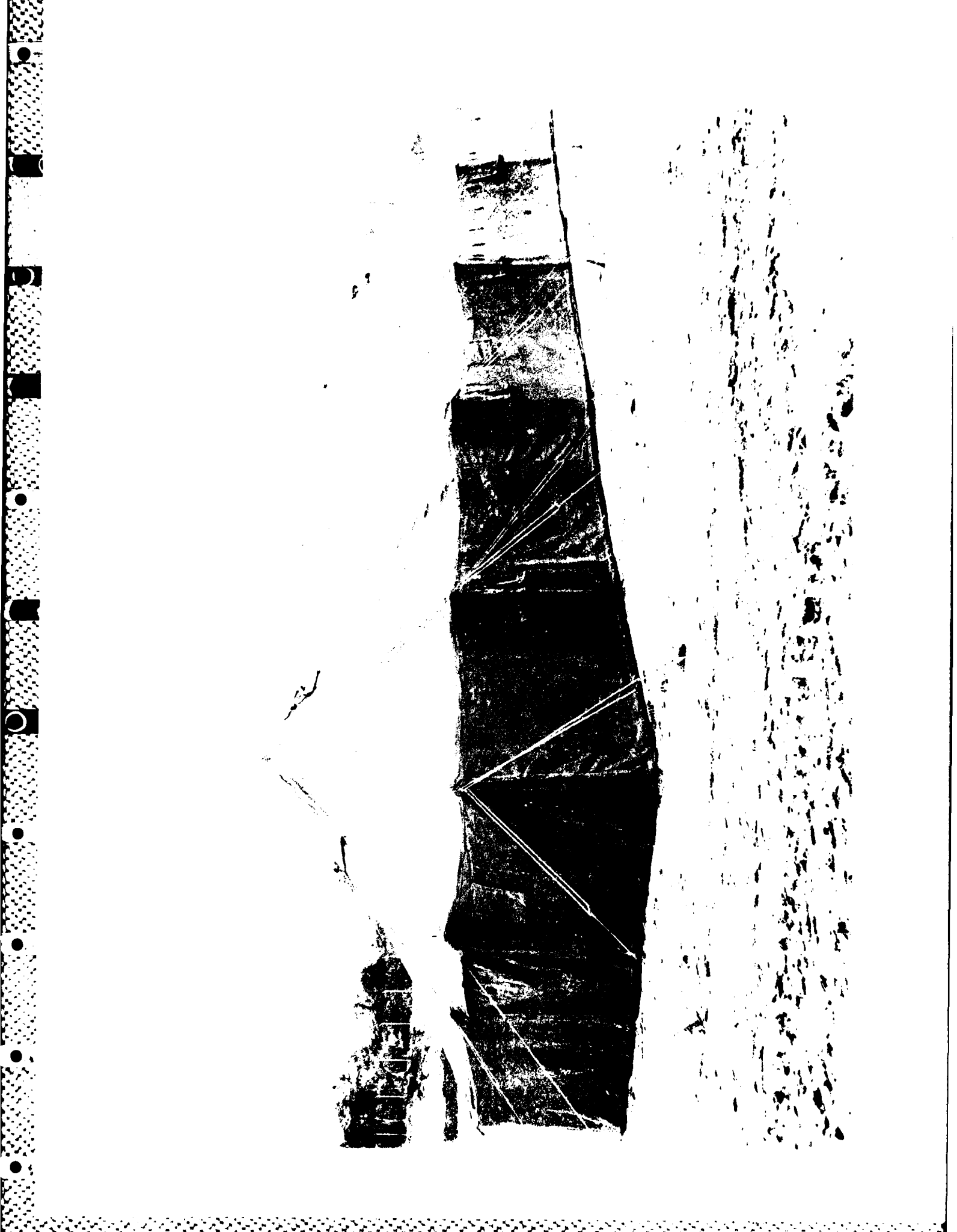
8340-543-7787 - TENT, general purpose, medium, w/cover	1 ea
w/o pins, poles, windows	
8340-188-8400 - POLE, TENT, 17 ft lg	1 ea
8340-277-1400 - POLE, TENT, 10 ft 3 in lg	2 ea
8340-188-8405 - POLE, TENT, 5 ft 8 in lg	10 ea
8340-188-8406 - POLE, TENT, 6 ft 2 in lg	4 ea
FOR ERECTION ON SOFT OR SEMI-HARD GROUND:	
8340-261-9750 - PIN, TENT, 16 in lg	48 ea
8340-261-9751 - PIN, TENT, 24 in lg	28 ea
FOR ERECTION ON HARD GROUND:	
8340-261-9749 - PIN, TENT, 9 in lg	48 ea
8340-823-7451 - PIN, TENT, 12 in lg	28 ea

NOTE: Item listed below is used principally in cold climate areas and is issued only upon request:

8340-262-2402 - TENT LINER

8. Remarks:

An improved G.P. Medium tent made from polyester duck has been developed which provides lighter weight (530 lbs vs. 569 lbs), increased service life and improved habitability. Development efforts were completed in 2Q87. Specifications and drawings are being prepared for procurement of the item by DPSC, Phila. Type Classification/assignment of NSNs is in process.



1. Name of Shelter: Tent, General Purpose, Large
2. Type of Shelter:
Non-Rigid
Pole-Supported
3. Current Status:
Standard

4. Responsible Engineering Activity:
U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:
This is a rectangular, hip-roofed, pole-supported, off-center ridge, large sized, general purpose tent, made of 9.85 oz cotton duck. The tent is provided with screened windows, roll-up sidewalls, and a sliding double door entrance at each end. Screen ventilators with flaps are located at the upper part of each end roof and three stovepipe openings are provided in the roof section. A liner which contains screens along the entire length of the sidewalls is available as a separate item of issue. The tent is 18' wide, 52' long, 12' high at the ridge and 5'6" at the sidewalls. The floor area is 936 sq ft and the complete tent (including liner) weighs 761 pounds. The tent can be pitched by 6 men in 1-1/4 hours and struck by 6 men in 50 minutes.

6. Concept of Use:
Designed to provide a large shelter primarily for use as a hospital ward. Also for use as a small bakery, for storage, quartering of troops, etc.

7. Logistical Data:
This is a Standard A item. The NSN for the tent, poles and pins is 8340-285-5599 and the cost is \$1,238.20. A liner is available as a separate item of issue. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-285-5596 - TENT, general purpose, large; w/cover	1 ea
w/o pins, poles, windows	
8340-188-8411 - POLE, TENT, 12 ft 3 in lg	4 ea
8340-188-8405 - POLE, TENT, 5 ft 8 in lg	12 ea
8340-188-8406 - POLE, TENT, 6 ft 2 in lg	4 ea
FOR ERECTION ON SOFT OR SEMI-HARD GROUND:	
8340-261-9750 - PIN, TENT, 16 in lg	68 ea
8340-261-9751 - PIN, TENT, 24 in lg	32 ea
FOR ERECTION ON HARD GROUND:	
8340-261-9749 - PIN, TENT, 9 in lg	68 ea
8340-823-7451 - PIN, TENT, 12 in lg	32 ea

NOTE: Item listed below is used principally in cold climate areas and is issued only upon request:

8340-285-5033 - TENT LINER	1 ea
----------------------------	------

8. Remarks:
An improved G.P. Large tent from polyester duck has been developed which provides lighter weight (666 lbs vs. 761 lbs), increased service life and improved habitability. Development efforts were completed in 2Q87. Specifications and drawings are being prepared for procurement of the item by DPSC, Phila. Type Classification/assignment of NSNs is in process.



1. Name of Shelter: Tent, Command Post, M-1945
2. Type of Shelter: Non-Rigid
Pole-Supported
3. Current Status: Standard

4. Responsible Engineering Activity:
U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This is a pole-supported tent made of 9.85 oz cotton duck. The central part of the tent is A-shaped and the ends are hip-roofed, with converging sidewalls. The tent has a blackout vestibule long enough to accommodate a litter and bearers. The tent is equipped with a liner, detachable sidewall screens and a cover. The tent is 10' wide, 20'7" long (6'10" of which is vestibule), 9' high with a sidewall height of 6'. The floor area is 172 sq ft and the complete tent, including pins and poles, weighs 257 pounds. The tent can be pitched by 5 men in 20 minutes and struck by 5 men in 15 minutes.

6. Concept of Use

Designed to provide a portable tent suitable for housing a battalion command post, small staff sections of higher echelons and/or battalion aid stations.

7. Logistical Data:

This is a Standard item for the Marine Corps and Standard B for the Army. The NSN for the Tent, Liner, Pins and Poles is 8340-269-1370 and the cost is \$880.65. The preceding stock number is for reference purposes only. The item is stocked and initially issued by components as follows:

8340-254-5358 - TENT, command post, M-1945, w/ cover	1 ea
liner, screens, lines and tent slips	
8340-261-9750 - PIN, TENT, 16 in lg	20 ea
8340-261-9751 - PIN, TENT, 24 in lg	12 ea
8340-188-8405 - POLE, TENT, 5 ft 8 in lg	8 ea
8340-082-2167 - POLE, TENT, 9 ft lg	2 ea

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item. The item has been found suitable in temperate and cold climates.



1. Name of Shelter: Tent, Kitchen, Flyproof, M-1945
2. Type of Shelter: Non-Rigid
Pole-Supported
3. Current Status: Standard

4. Responsible Engineering Activity:
U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This is a pole-supported tent made of 9.85 oz cotton duck. The tent is an "A" type, with square end, and rectangular in shape. The back portion of the tent forms a stack higher than the rest of the tent. The side and front walls may be guyed out to form awnings. A wall screen which snaps to the tent provides an insect-proof closure on the sides and front when the walls are raised. The tent is 12' wide, 18' long and 9' high. The wall height is 9' on the stack section and 6' on the deck section. The floor area is 216 sq ft and the complete tent weighs 420 pounds including pins and poles. The tent can be pitched by 5 men in 1 hour and struck by 5 men in 40 minutes.

6. Concept of Use

Designed to provide shelter for the preparation, cooking and serving of food with a minimum danger of contamination from flyborn diseases.

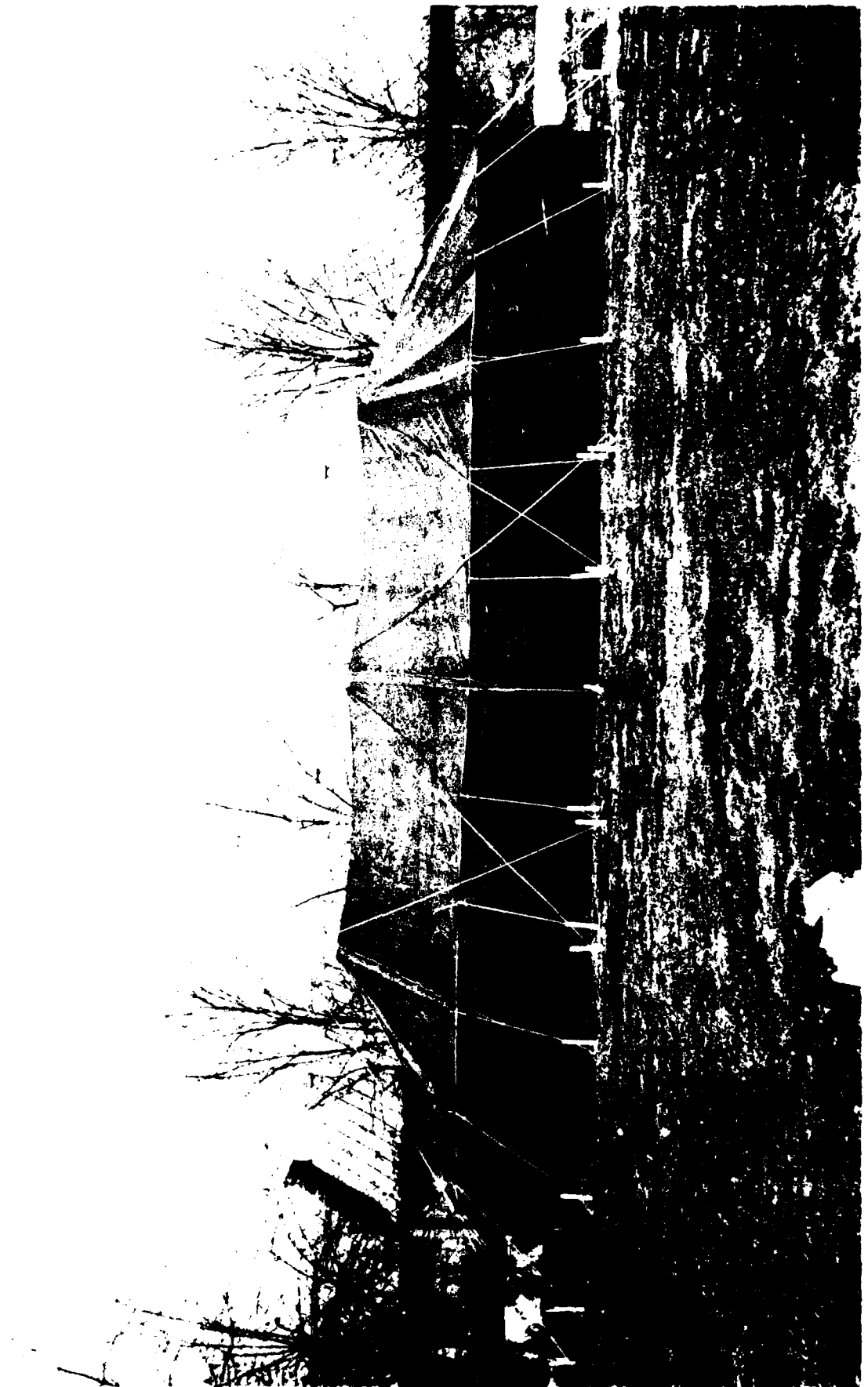
7. Logistical Data:

This is a Standard A item. The NSN for the tent is 8340-262-3687 and the cost is \$1664.15. The preceding stock number is for reference purposes only. The item is stocked and initially issued by components as follows:

8340-257-2560 - TENT, kitchen; flyproof; w/cover, screen	1 ea
8340-261-9750 - PIN, TENT, 16 in lg	32 ea
8340-261-9751 - PIN, TENT, 24 in lg	31 ea
8340-188-8396 - POLE, TENT, 11 ft 10 in lg	1 ea
8340-188-8411 - POLE, TENT, 12 ft 3 in lg	2 ea
8340-188-8406 - POLE, TENT, 6 ft 2 in lg	16 ea
8340-188-8407 - POLE, TENT, 7 ft lg	1 ea
8340-082-2167 - POLE, TENT, 9 ft lg	5 ea

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item.



1. Name of Shelter: Tent Assembly, M-1942

2. Type of Shelter:

Non-Rigid
Pole-Supported

3. Current Status:

Standard

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This is a large, pole-supported, sectional type structure made of 9.85 oz cotton duck. The top of the tent consists of two middle sections and two rounded end sections. The sidewall is in four sections. There are three large poles complete with supporting rings, block and tackle for erecting and supporting the tent. The tent is 40' wide, 80' long, 18' high with an eave height of 8'. The tent can be lengthened by the addition of middle sections to any desired length. The 40' x 80' tent has a 3200 sq ft floor area and the complete tent including pins and poles weighs 1,755 pounds. The tent can be pitched by 6 men in 5 hours and struck by 6 men in 2 hours.

6. Concept of Use:

To be used for church services in the field, for lectures and for the showing of movies. It can also be used for storage, for quartering personnel, or for any other authorized purpose.

7. Logistical Data:

This is a Standard A item. The NSN for the tent, poles and pins, block and tackle, etc. is 8340-262-2877 and the cost is \$4,805.45. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-266-6782	- TENT SECTION, wall	4 ea
8340-266-6780	- TENT SECTION, end	2 ea
8340-266-6781	- TENT SECTION, middle	2 ea
8340-377-6606	- RIGGING SET, TENT, consisting of the following components:	
8340-272-9285	- BLOCK AND TACKLE	3 ea
8340-242-7863	- CHAIN, HOOK AND RING, TENT	3 ea
8340-252-2266	- LINE, TENT	9 ea
8340-241-9732	- PIN, TENT, 36 in lg	39 ea
8340-082-5738	- POLE, TENT, 8 ft 3 in lg	30 ea
8340-241-8183	- POLE, TENT, 21 ft lg	3 ea

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard tentage repair kit is available for field repair of the item.



1. Name of Shelter: Tent, Frame-Type, Expandable, 16' x 16'

2. Type of Shelter:

Non-Rigid
Frame-Type

3. Current Status:

Standard

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This is an expandable frame-supported tent, consisting of an aluminum frame and a covering of 9.85 oz cotton duck. The tent is provided with two U-shaped doors, four screened windows, 2 heater duct openings, a ventilator and stovepipe opening. The tent is 16' wide, 16' long, 8'6" high at the ridge and 6' high at the eaves. The complete tent including pins weighs 300 pounds. The tent can be erected by 4 men in 45 minutes and struck by 4 men in 20 minutes.

6. Concept of Use:

Provides a highly mobile tent suitable for use by Airmobile Divisions as a division tactical operations and plan center, communication center and as a briefing tent.

7. Logistical Data:

This tent has been type classified Standard A for use by Airmobile Divisions. The NSN for the complete tent is 8340-782-3232 and the cost is \$1,844.75. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-782-3400 - FRAME, TENT	1 ea
8340-261-9749 - PIN, TENT, aluminum, 9 in lg	18 ea
8340-823-7451 - PIN, TENT, steel, 12 in lg	6 ea
8340-261-9750 - PIN, TENT, wood, 16 in lg	10 ea
8340-782-3425 - TENT, w/cover; w/o components	1 ea

8. Remarks:

Specifications and drawings are available for competitive procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item. The item has been found suitable in tropical climates.



1. Name of Shelter: Tent, Frame-Type, Insulated, Sectional, 16' x 16'
(Jamesway)

2. Type of Shelter:

Non-Rigid
Frame-Type

3. Current Status:

Standard

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

The shelter is a sectional, frame-supported tent composed of an insulated skin, wooden supporting frame, insulated plywood floor boxes, and insulated vestibules. The insulated skin consists of 1" thick fiberglass batting captured between two layers of vinyl-coated cotton duck. The shelter is 16' wide, 16' long and 8' high. It can be expanded in multiples of 4'. The complete shelter weighs 2,252 pounds. Six men can erect the shelter in 45 minutes and strike the shelter in 30 minutes.

6. Concept of Use:

To be used as a general purpose tent in extreme cold climates. The shelter can be transported by vehicle or aircraft.

7. Logistical Data:

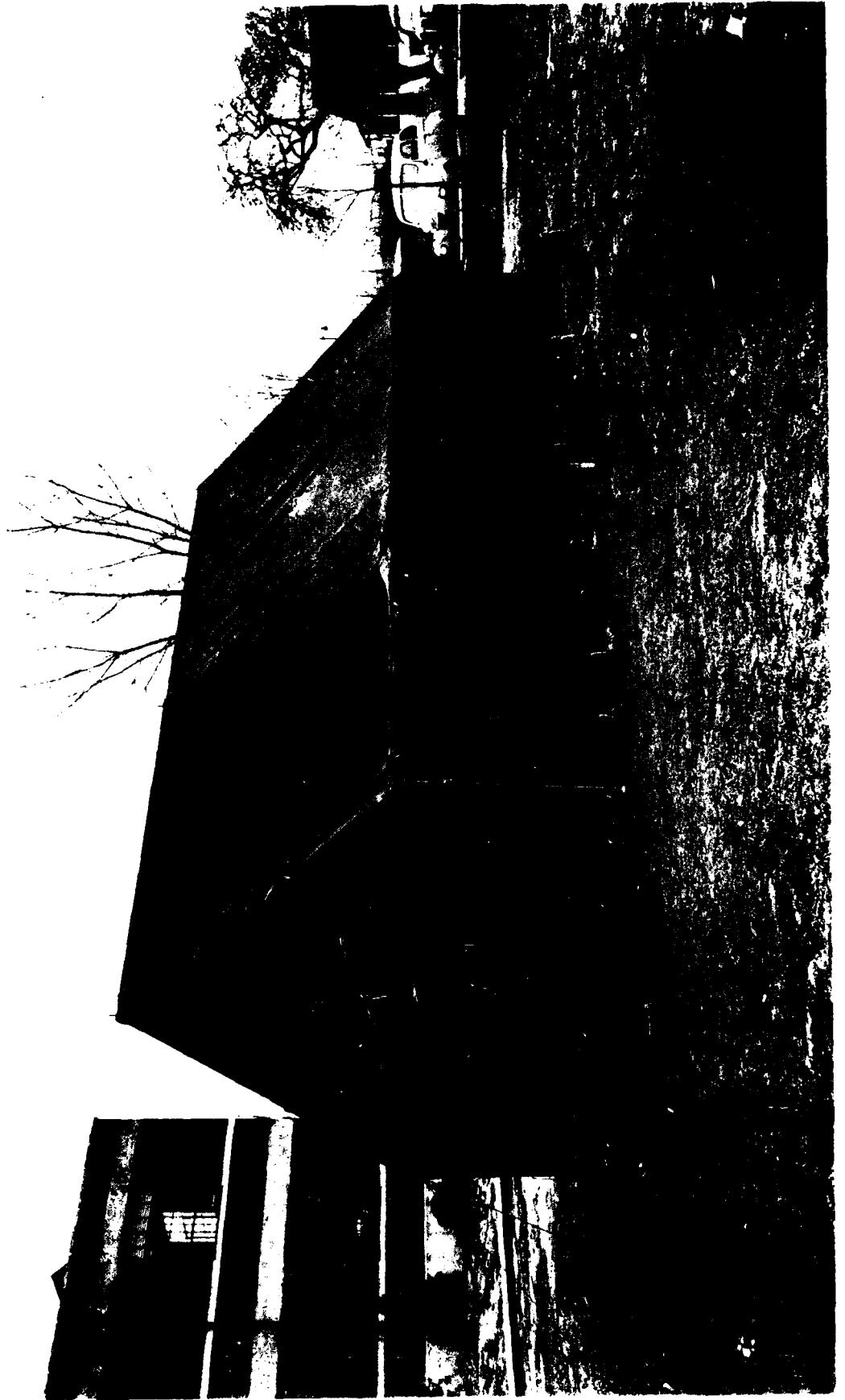
This is a standard A item in stock at Army depots. The NSN for the tent is 8340-262-2399 and the cost is \$1,609.00. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-182-0436 - ARCH, TENT FRAME	5 ea
8340-508-0600 - CONNECTOR-SWITCH	1 ea
8340-377-6609 - TENT SECTION, end	2 ea
8340-377-6611 - TENT SECTION, intermeidate	2 ea
8340-377-6612 - Vestibule, TENT	1 ea

8. Remarks:

Specifications and drawings are available for competitive procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item. The item has been found suitable in extreme cold climates.

This item, however, has been declared "non-procurable" by DPSC, Phila. due to its old design which uses a costly, laminated wooden frame and due to low quantities annually procured. A commercial shelter is currently being evaluated by Natick as a substitute for the present tent.



1. Name of Shelter: Tent, Maintenance, Shelter
2. Type of Shelter: Non-Rigid
Frame-Supported
3. Current Status: Standard

4. Responsible Engineering Activity:
U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This is an A-type, square-end, rectangular tent made of 9.85 oz cotton duck and supported by a steel frame. The tent has a door at each end formed by the overlapping of the end wall halves. The tent measures 18' wide, 26' long, 13'8" at the peak with a sidewall height of 5'6". The floor area is 468 sq ft and the complete tent including pins weighs 1,255 pounds. Four men can erect the tent in 2 hours and strike the tent in 1 hour.

6. Concept of Use:

Designed to provide a small maintenance shelter for tank and truck maintenance crews and their equipment.

7. Logistical Data:

This is a standard item used by the Marine Corps. The NSN for the tent is 8340-257-2557 and the cost is \$2,481.65. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-257-2558 - TENT, maintenance; shelter; w/cover, ground cloths; w/o frame, pins	1 ea
8340-242-7871 - FRAME SECTION, TENT, designed for tent, maintenance shelter; steel; Sec no. 1 bottom	1 ea
8340-242-7870 - FRAME SECTION, TENT designed for tent, maintenance shelter; steel; Sec no. 2 middle	1 ea
8340-242-7869 - FRAME SECTION, TENT, designed for tent, maintenance shelter; steel; Sec no. 3 top	1 ea
8340-261-9750 - PIN, TENT, 16 in lg	38 ea
8340-261-9751 - PIN, TENT, 24 in lg	18 ea

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item.



1. Name of Shelter: Tent, Frame-Type, Maintenance, Medium, Light Metal
2. Type of Shelter: Non-Rigid
Frame-Supported
3. Current Status: Standard

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This is a sectional, frame-supported tent consisting of an outer fabric, inner liner and supporting frame. The outer fabric is 9.85 oz cotton duck. An insulated liner made of fiberglass batting captured between two layers of cloth, cotton, sateen carded, 8.5 oz and natural in color, is available for use in cold climates. The frame is made of magnesium and consists of two end arches, intermediate arches, connecting purlins, and cantilever-type door assemblies. The basic tent measures 20' wide, 32' long and 14' high. However, it can be lengthened in increments of 8' to any desirable length. The floor area of the basic tent is 640 sq ft and the complete tent including pins weighs 3,276 pounds. Four men can erect the tent in 5 hours and strike the tent in 4 hours.

6. Concept of Use:

Designed as a medium-sized maintenance shelter for use in the repair of tracked and wheeled vehicles.

7. Logistical Data:

This is a standard A item which maintains high usage and is in stock at Army Depots. The NSN for the tent is 8340-951-6419 and the cost is \$13,301.35. A liner is available as a separate item of issue. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-951-6420 - FRAME SECTION, TENT (pack no. 1)	1 ea
8340-951-6421 - FRAME SECTION, TENT (pack no. 2)	1 ea
8340-951-6422 - FRAME SECTION, TENT (pack no. 3)	3 ea
8340-951-6423 - KIT, GROUND ANCHOR	1 ea
8340-823-7451 - PIN, TENT, steel, 12 in lg	24 ea
8340-951-6424 - TENT SECTION, end	2 ea
8340-951-6425 - TENT SECTION, intermediate	3 ea

NOTE: A liner is authorized in extreme cold climates areas and is issued only upon request. It is stocked and initially issued by components as follows:

8340-986-0024 - Tent Liner, End Sect., "A" w/cover	1 ea
8340-978-9627 - Tent Liner, End Sect., "B" w/cover	1 ea
8340-951-6426 - Tent Liner, Intermediate Section, w/cover	3 ea

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item. The item has been found suitable in temperate and cold climates.

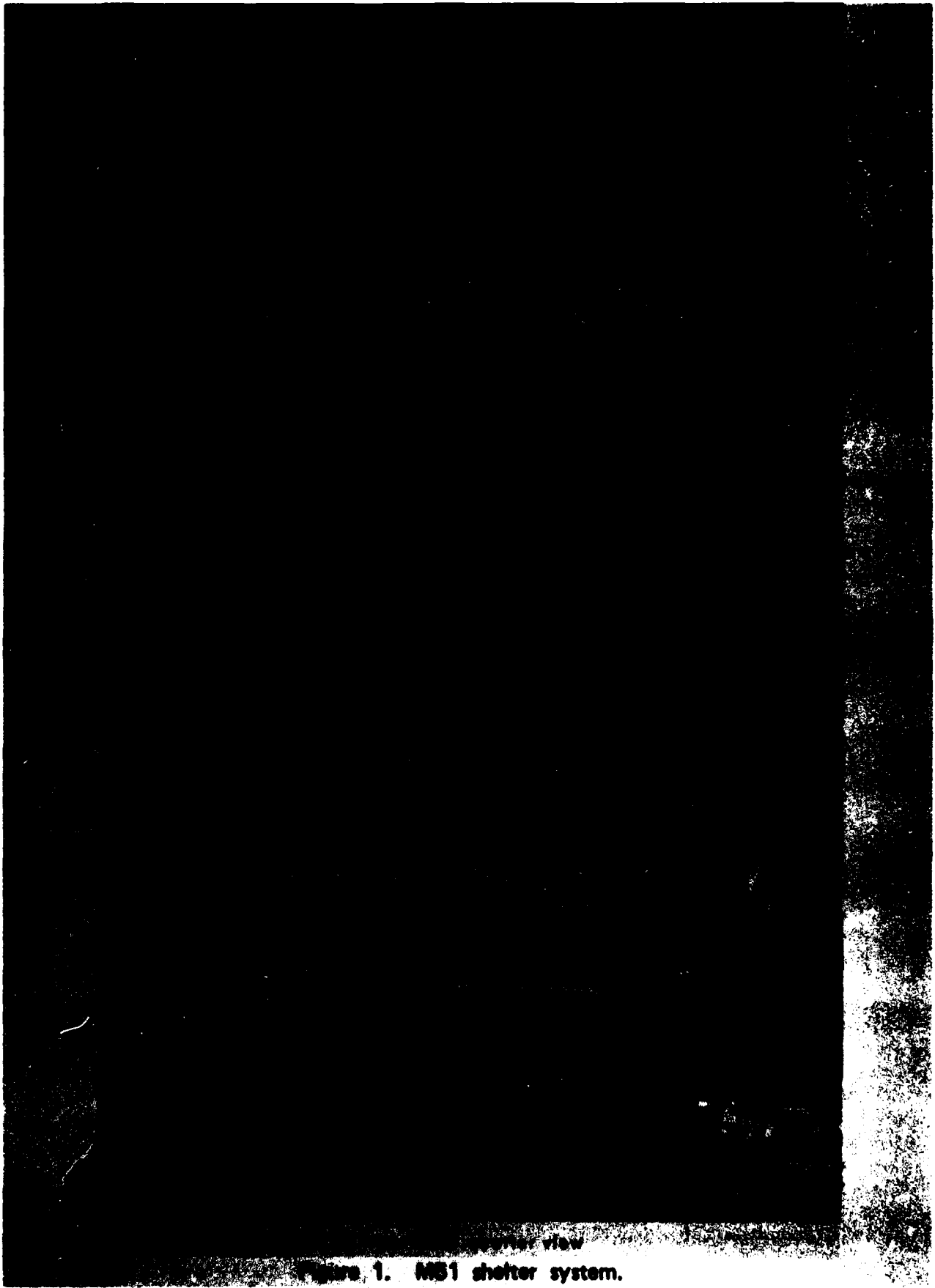


Figure 1. MS1 shelter system.

1. Name of Shelter: Shelter System, Collective Protection, Chemical-Biological, Trailer-Transported, XM51

2. Type of Shelter:

Non-Rigid
Air-Inflated

3. Current Status:

Standard

4. Responsible Engineering Activity:

U.S. Army Munitions Command, Edgewood Arsenal, Maryland. Natick is furnishing technical support for the inflatable shelter.

5. Physical Characteristics:

This tent is air-supported and half cylindrical in shape. The floor space is approximately 210 sq ft including the protective entrance (capable of handling two litter patients side by side). The tent measures 26' wide, 17' 6" long and 8'10" high. It is of dual wall construction utilizing a toxic agent impermeable material (Tedlar-dacron laminate). Shelter, protective entrance, main engine, power generator, environmental control equipment and 24 hour fuel supply are all mounted on a 1-1/2 ton M105A2 Trailer. Five men can erect the shelter in 36 minutes and strike the shelter in 25 minutes.

6. Concept of Use:

It can be used as a command post, battalion fire direction center, battalion medical aid station, air operations center, communications center and rest and relief station in a toxicologically contaminated atmosphere. It is transported, as required on the M105A2 Trailer.

7. Logistical Data:

The NSN for the shelter is 4240-854-4144 and the cost is \$56,189.00.

8. Remarks:

Training course material is available. USAMUCOM has logistic responsibility for the item.



1. Name of Shelter: Air-Inflatable, Double Wall, Combat Support Hospital

2. Type of Shelter:

Non-Rigid
Air-Inflated

3. Current Status:

Standard

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

The inflatable double wall shelter is made of a polyester fabric with neoprene hypalon coating. The shelter consists of four interchangeable sections; a corridor connector, two entry ways, air lock, and two end panels. Each section is of multi-cell construction designed to contain, within each cell, inflatable and replaceable bladders which hold the air to support the sections. The sections are joined by becket lacing and buckle connections. Each section is 20' wide, 13' long, and 10' high. The overall length of a five section shelter is 74'. Shipping weight is 6356 pounds. The shelter can be erected in 2 hours using a crew of six experienced men.

6. Concept of Use:

Designed as a highly mobile shelter for use primarily as a hospital ward. Other uses include the casualty receiving area, pre- and post-operative areas and dispensary. The shelter can be transported by vehicle or aircraft.

7. Logistical Data:

Combat Support Hospitals, which consist of 15 each of the five-section inflatable shelter, are deployed world wide.

8. Remarks:

Specifications and drawings have been developed by Natick for competitive procurement. Training and maintenance manuals are available for use with the shelter. The shelter assembly has not been procured in the last five years as it is being replaced by the Tent, Extendable, Modular, Personnel (TEMPER).



1. Name of Shelter: Tent, Extendable, Modular, Personnel (TEMPE)

2. Type of Shelter:

Non-Rigid
Frame-Type
With Fly

3. Current Status:

Standard

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This is an extendable, modular, frame supported shelter consisting of a collapsible aluminum frame covered with a 13.5 oz, coated, polyester fabric. The modules can be configured using any combination of window and/or door sections along with vestibules for module connection. A tent fly is employed to reduce solar loading and provide increased environmental protection. Insulated/single ply floors, electrical distribution systems, lights (fluorescent or incandescent), air distribution plenums for heat/cooling distribution and insulated/single ply liners are available for this system. The module width is 20'6" and the length can be extended in 8' increments to satisfy user requirements.

6. Concept of Use:

To be used for field feeding, medical operations, and billeting.

7. Logistical Data:

Item Description	NSN Forest Green	NSN Desert Tan
Tent, Extendable, Surgical Work Area, 64 x 20 ft	8340-01-185-2616	8340-01-212-9468
Tent, Extendable Medical, 64 x 20'	8340-01-185-2617	8340-01-212-9469
Tent, Extendable, Pers., 32 x 20'	8340-01-196-6272	8340-01-185-2628
Tent, Extendable, Medical 16 x 20'	8340-01-185-2614	8340-10-212-9472
Tent, Extendable, Central Medical Supply, 16 x 20 ft	8340-01-185-2618	8340-01-212-9472
Tent, Extendable, Utility, 16 x 20 ft	8340-01-185-2613	8340-01-212-9473

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. The standard tentage repair kit is available for field repair of the item. This item has received worldwide evaluation and is suitable for use in all climates.



1. Name of Shelter: Shelter Half Tent

2. Type of Shelter:

Non-Rigid
Pole-Supported

3. Current Status:

Standard

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This tent is fabricated essentially of 7.5 oz cotton/rayon duck. When joined to another tent, shelter-half, new type, it forms a shelter for two men. Snaps are provided along the lower edge of the shelter-half to permit six shelter-halves to be joined together to make a six-man tent. The pinnacle of the tent is formed with a pole at each end, and the sides are secured to the ground with the footstops. The complete tent weighs 5 lbs and has an erection time of 5 minutes.

6. Concept of Use:

This is a special purpose tent intended to provide shelter to troops (1 to 6 men, depending on the configuration) operating in moderate and hot environments.

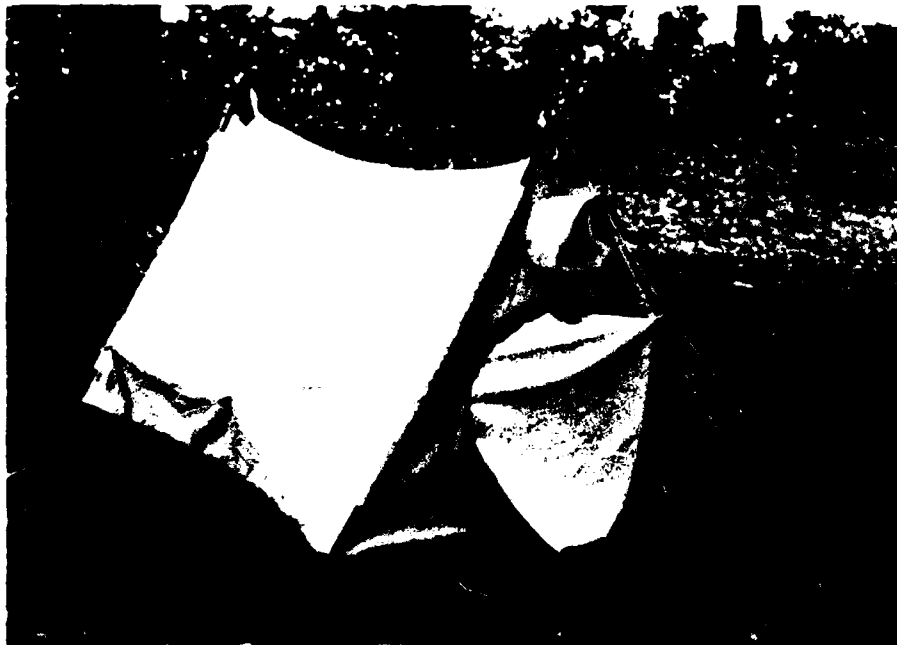
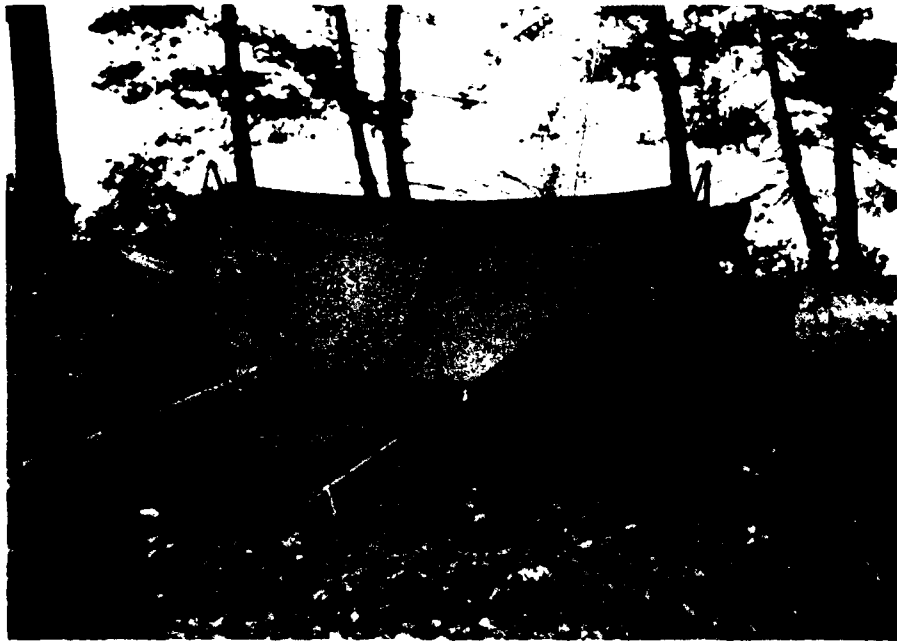
7. Logistical Data:

This is a Standard A item. The NSN for the shelter half poles and pins is 8340-753-6435 and the cost is \$39.15. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-577-4168 - Shelter half tent	1 ea
8340-223-7849 - Pole section	3 ea
8340-261-9749 - Pin tent, 9 in lg	5 ea

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item.



1. Name of Shelter: 2 Man Mountain Tent

2. Type of Shelter:

Non-Rigid
Pole-Supported

3. Current Status:

Standard

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This tent is fabricated essentially of cotton twill. The material is reversible with white and olive drab coloring. It is also fire, water, and mildew resistant. The tent is triangular in cross section. An entrance tunnel and a ventilator are provided at each end. The tunnel opening may be closed with tunnel fabric or tunnel screen liner. The complete tent weighs 15 lbs. Two men can erect this tent in 10 minutes and strike it in 8 minutes.

6. Concept of Use:

This is a special purpose tent intended to provide shelter to troops (2 men) operating in extreme cold, wet and mountainous environments. With the reversible feature of camouflage, this tent is intended for use in mountainous and arctic regions.

7. Logistical Data:

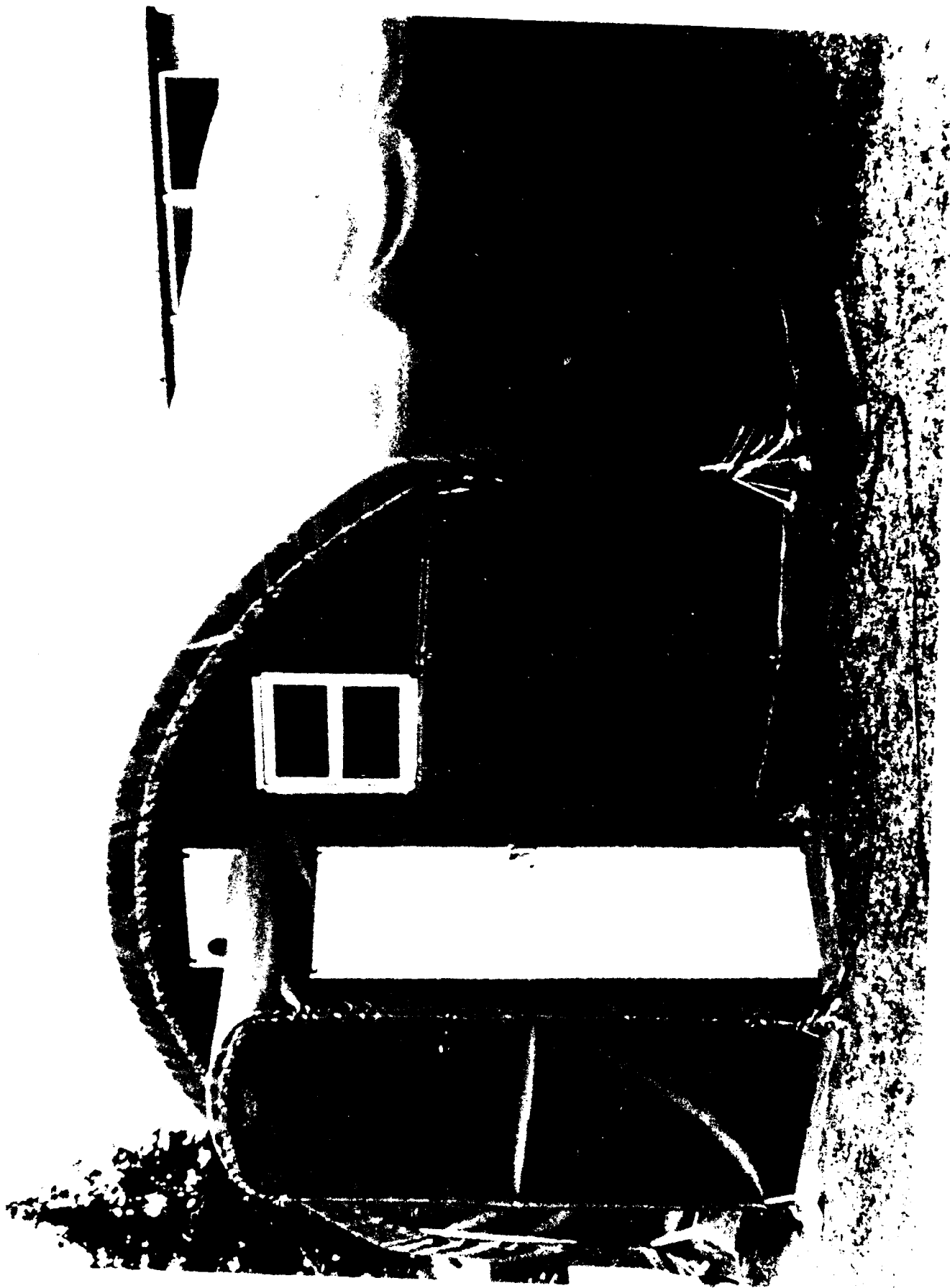
This is a Standard A item which maintains low usage due to its special purpose. The NSN for the tent, poles and pins is 8340-059-2430 and the cost is \$70.15. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-254-5348 - Tent, 2 Man Mountain	1 ea
8340-261-9749 - Pin, tent, 9 in lg	6 ea
8340-222-3339 - Adapter, tent pole	2 ea
8340-223-7849 - Pole, Section	12 ea

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item.

DEVELOPMENTAL TENTS



1. Name of Shelter: Hansen Weatherport

2. Type of Shelter:

Non-Rigid
Frame-Type

3. Current Status:

Commercial Item

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

The shelter is a sectional, frame-supported tent composed of an insulated skin, steel supporting frame, insulated plywood floor boxes, and insulated vestibules. The insulated skin consists of 1" thick foam batting captured between two layers of split film polyethylene fabric. The shelter is 16' wide, 16' long and 8' high and can be expanded in multiples of 4'. The complete shelter weighs 2,252 pounds. Six men can erect the shelter in 45 minutes and strike the shelter in 30 minutes.

6. Concept of Use:

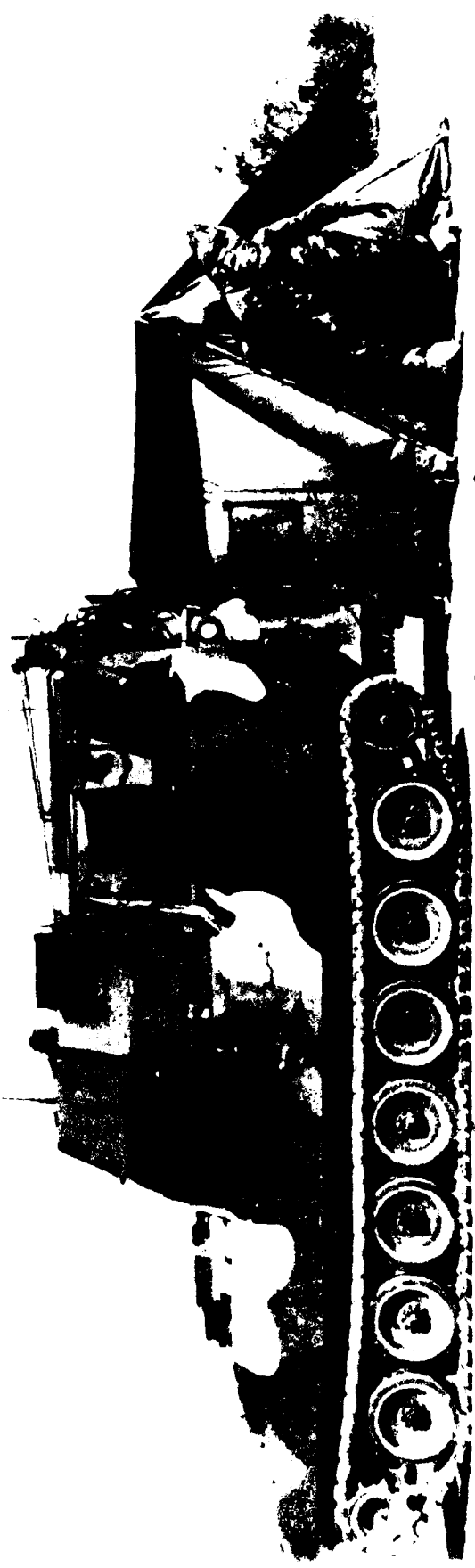
To be used as a general purpose tent in extreme cold climates. The shelter can be transported by vehicle or aircraft.

7. Logistical Data:

This is a commercial item being evaluated as a potential replacement for the Frame Type Insulated Sectional 16' x 16' (Jamesway).

8. Remarks:

This shelter was successfully evaluated against current requirements for the Jamesway shelter which is no longer available. The item has been found suitable as a replacement for the Jamesway in extreme cold climates.



1. Name of Shelter: Vehicle Chemical Biological Protective Tent
2. Type of Shelter: Non-Rigid
Pole-Supported
Pressurized
3. Current Status: Concept Stage

4. Responsible Engineering Activity:
U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This is a chemically protective tent that attaches to the back of a vehicle, shares the micro-climate and is deployable in a chemical environment. The floor area is 80 sq ft to accommodate 3 men. The tent is 10' x 8' x 7' with a triangular cross section. The complete tent weighs 60 lbs and utilizes 10 stakes. The tent can be pitched in 10-15 minutes by 2 men in MOPP IV Gear.

6. Concept of Use:

The tent provides collective protection for troops (3 men) for rest and relief functions.

7. Logistical Data:

The tent was fabricated to prove out concept feasibility.

8. Remarks:

The tent concept was fabricated and successfully evaluated at REDLEG Demo, October 1985, Fort Sill, Oklahoma.



1. Name of Shelter: Collective Protection Tent

2. Type of Shelter:

Non-Rigid
Pressurized

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center; Item being developed for the Marine Corps under Marine Corps funding

5. Physical Characteristics:

This is a double wall chemically protective tent. The fly and tent walls consist of an inexpensive, throw away polyethelene based fabric. The tent is deployable in a chemically dirty environment. It is pressurized from the filter blower unit and utilizes poles as a back up. The tent, when pressurized at 0.5" water, provides 5 days continuous liquid and vapor chemical protection. The floor area is 300 sq ft to accommodate 12-15 men. The tent is 42' x 11' x 7'. The complete tent weighs 275 lbs, and utilizes 50 stakes. The tent can be pitched in 30 minutes by 4 men in MOPP IV Gear.

6. Concept of Use:

The tent provides collective protection for troops (12-15 men) to perform command and control or rest and relief functions.

7. Logistical Data:

This is a development item. Estimated cost is \$1600.00

8. Remarks:

A Preplanned Product Improvement effort will be undertaken to allow the tent to be used for medical functions, attach to the back of vehicles and incorporate a toilet facility.



1. Name of Shelter: Shelter Maintenance Transportable
2. Type of Shelter: Air Inflatable Arches
3. Current Status: Developmental Stage
4. Responsible Engineering Activity: U.S. Army Natick Research Development and Engineering Center
5. Physical Characteristics:

The shelter consists of air inflatable arches supporting a neoprene and hypalon coated weather barrier. The Shelter, Maintenance, Transportable consists of three leaning arch assemblies (outside length 23 feet), two intermediate arch assemblies (outside length 2 feet) and two end wall assemblies. The overall length is 84 feet. The shelter may be lengthened or shortened in 25 feet increments by the addition or subtraction of a leaning and intermediate arch assembly. The inside height is 21 feet, and the width is 26 feet. The weight of the complete shelter assembly including the electric inflation blower, and the erection/repair kit is 2400 lbs. The electric blower is required only for the initial erection which requires approximately 15 minutes. The complete shelter can be erected/struck in 2 hours using a crew of eight people.

6. Concept of Use:

This shelter will be used to provide protection for the helicopter and personnel during maintenance and inspection of helicopters and other vehicles during maintenance operations.

7. Logistical Data:

This shelter is in Engineering Development.

8. Remarks:

More detail Level III design drawings are being made to support a procurement specification.



1. Name of Shelter: Extension Shelter

2. Type of Shelter:

Non-Rigid
Pole Supported

3. Current Status:

Developmental Stage

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

The experimental extension shelter is a cabin style aluminum pole supported fabric shelter. The shelter has one 72" by 36" door with screen and four windows that provide natural ventilation and light. The ten foot square shape provides one hundred square feet of floor area. The one piece fabric item has a total weight of 72 lbs and has a total cube of four feet. The shelter can be erected by two men in ten minutes.

6. Concept of Use:

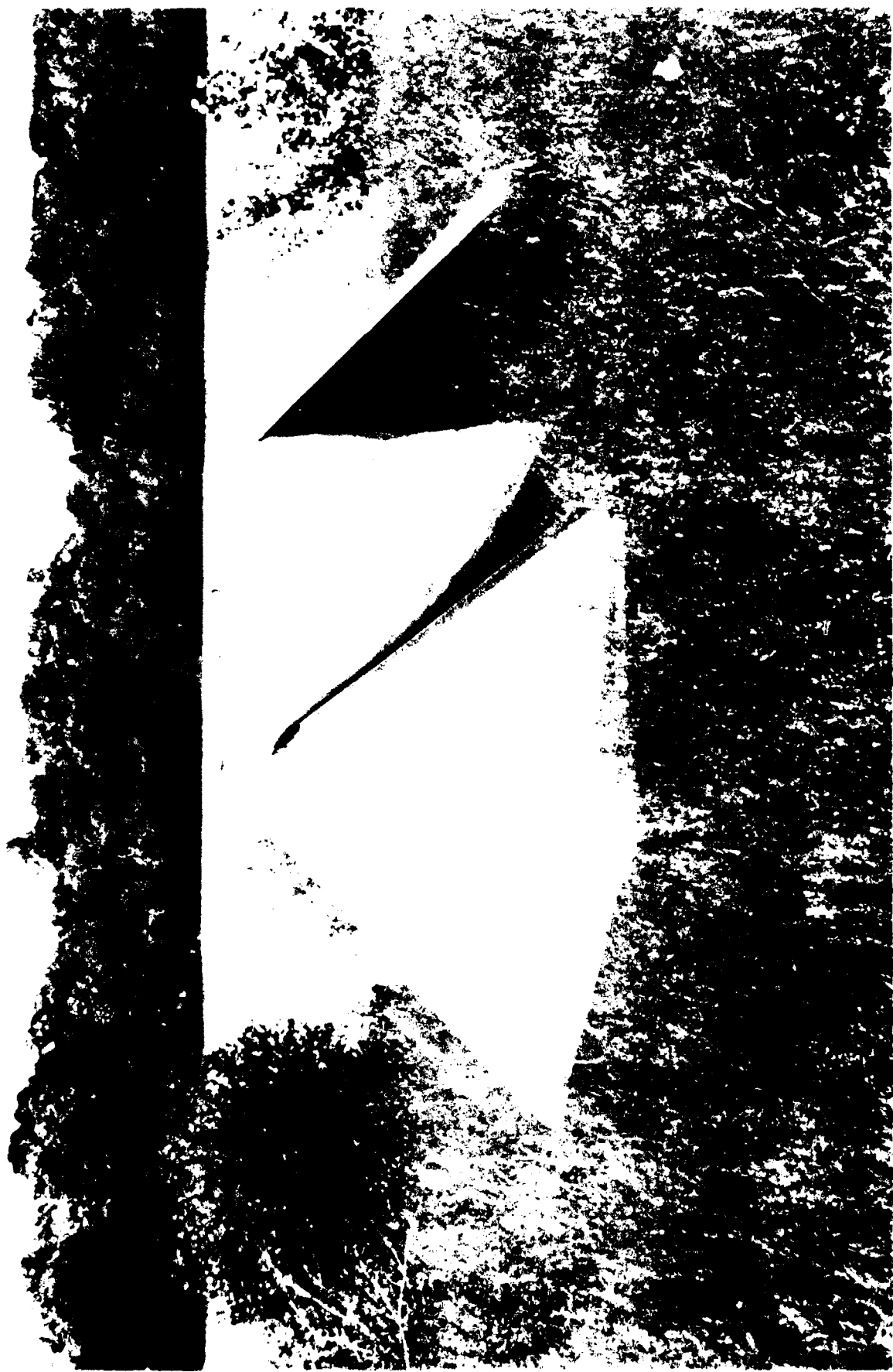
The shelter was designed to provide additional work/rest area for vehicle and vehicle mounted shelter crews.

7. Logistical Data:

This is an experimental item which has been made in limited quantities for evaluation by the Signal Corps at Fort Bragg. At the present time, there is no requirement for this item.

8. Remarks:

This was well received in Fort Bragg Evaluation.



1. Name of Shelter: Cold Weather Shelter System

2. Type of Shelter:

Non-Rigid
Pole-Supported

3. Current Status:

Developmental Stage

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center; item being developed for the Marine Corps under Marine Corps funding

5. Physical Characteristics:

The Cold Weather Shelter System is a five sided fabric sheet made of nylon fabric coated on both sides (green/white), with a weight of 6.4 oz/sq yd. Each sheet has a two-way zippered entrance, that may also be used as a peak vent. The sheets are modular in even numbers and are joined together with a two inch wide fastener tape and two plastic quick release buckles. The Cold Weather Shelter System as issued would include one fabric sheet, two 15-1/2 inch aluminum poles, and three 9 inch aluminum pins. Weight of the Cold Weather Shelter System is 4.5 lbs, component weights are: poles .41 lbs each; stakes .61 lbs each; and fabric sheet 3.5 lbs. Four men can erect the shelter in 5 minutes, with a striking time of under 5 minutes.

6. Concept of Use:

Designed as a replacement for the standard Shelter Half, the Cold Weather Shelter System benefits from its modular design. A single section can be used as a fly for the shelter. In even numbers, the fabric sheets will join together to form a shelter for two, six, or eight men. The Marine Corps intended use is in a four man configuration. With the reversible fabric, the shelter provides camouflage in both arctic and temperate regions.

7. Logistical Data:

This is an experimental shelter, which has been made in small quantities by Natick, for Marine Corps evaluation. A 200 unit buy is being made for Marine Corps evaluation during 1Q88. It is estimated that the Cold Weather Shelter System will cost \$75.00 per section in large procurements.

8. Remarks:

A Technical Data Package is being prepared for procurement of this item. No special training is required to use the shelter.



1. Name of Shelter: Pressurized Rib Supported Battalion Aid Station (M-51 Replacement)

2. Type of Shelter:

Non-Rigid
Pressurized Rib-Supported

3. Current Status:

Developmental Stage

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This semi-cylindrical shelter provides a working floor area of 400 sq ft. It has a rectangular footprint of 25'L x 18'W and is 10' high at its highest point. Its Teflon coated Kevlar shell is supported by urethane coated nylon tubes (14" dia), pressurized to 1.5 psi under normal conditions and 6.0 psi under heavy snow. The shelter weighs 550 lbs and is powered by a 3/4 ton support trailer carrying heating, cooling, and air filtering equipment. With this equipment, the shelter can operate in a chemically contaminated environment from -25 deg F to +120 deg F, while maintaining an internal temperature of 60 deg F. The shelter can also operate in a clean, non-chemically contaminated environment.

6. Concept of Use:

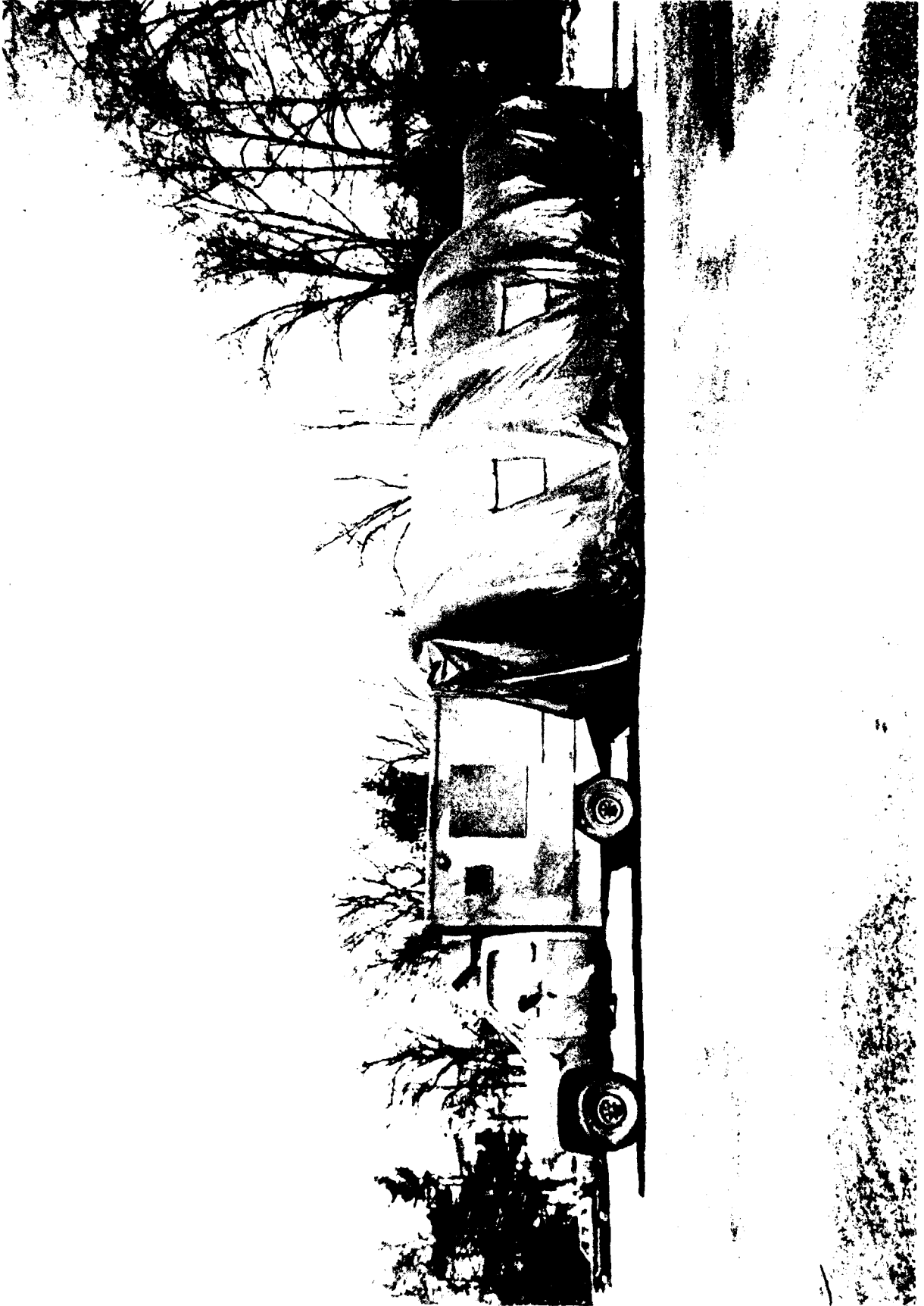
This shelter is being developed to improve upon and replace the M-51 chemically hardened medical tent. It will enable a medical crew of four to perform emergency medical treatment in a chemically contaminated area and will be capable of moving up to three times a day. A Division Clearing Station (two shelters joined together) will move once every three days.

7. Logistical Data:

The shelter will be transported by a dedicated prime mover, the High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) ambulance, equipped with a Lightweight Integrated Shelter System (LISS). In addition to the shelter, the HMMWV will carry all medical equipment and shelter accessories. Standard military equipment will be used whenever possible.

8. Remarks:

The program is currently in 6.2 Development. This shelter is competing with a trailerless, 300 sq ft version (TRACOPS) for medical community acceptance and approval. The best received version will be moved into 6.3 Development.



1. Name of Shelter: Trailerless Collective Protection Shelter
(TRACOPS)

2. Type of Shelter:

Non-Rigid
Pressurized Rib-Supported

3. Current Status:

Developmental Stage

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This semi-cylindrical shelter provides a working floor area of 300 sq ft. It has a rectangular footprint of 18'L x 18'W and is 10' high at its highest point. Its Teflon coated Kevlar shell is supported by urethane coated nylon tubes (14" dia), pressurized to 2.5 psi. The shelter weighs 300 lbs and is powered by a modified High Mobility Multi-Purpose Wheeled Vehicle HMMWV carrying heating, cooling, and air filtering equipment. With this equipment, the shelter can operate in a chemically contaminated environment from -25 deg F to +120 deg F, while maintaining an internal temperature of 60 deg F. The shelter can also operate in a clean, non-chemically contaminated environment.

6. Concept of Use:

This shelter is stored on and deployed from the back of the HMMWV. It is being developed to improve upon and replace the M-51 chemically hardened medical tent. It will enable a medical crew of four to perform emergency medical treatment in a chemically contaminated area and will be capable of moving up to three times a day. A Division Clearing Station (two shelters joined together) will move once every three days.

7. Logistical Data:

The shelter will be transported by a dedicated prime mover, the HMMWV ambulance, equipped with a Lightweight Integrated Shelter System (LISS). In addition to the shelter, the HMMWV will carry all medical equipment and shelter accessories. Standard military equipment will be used whenever possible.

8. Remarks:

The program is currently in 6.2 Development. This shelter is competing with a trailer accompanied, 400 sq ft version for medical community acceptance and approval. The best received version will be moved into 6.3 Development.



1. Name of Shelter: Modified Lightweight Hexagonal Tent

2. Type of Shelter:

Pole-Supported
Pyramid

3. Current Status:

Developmental Stage

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This tent is a redesign of the Lightweight Hexagonal. The redesign includes a floor, screens and added vents to improve comfort. The tent hangs from a reversible overcover (either green/white or green/desert tan) which will also provide six hours of liquid chemical protection. The original cotton sateen used on the Standard Hexagonal tent has been replaced with a vinyl coated nylon. By reducing the number of ground anchors from 20 to 13, the speed and ease of pitching is reduced with no loss in stability. The tent is quickly erected (under 5 minutes) with 113 sq ft of floor space, a height of 8' 6" in the center and a weight of 84 lbs, (tent, overcover and pole weigh 67 lbs). A reversible overcover with green on one side and either white or desert tan on the other side will provide 6 hours of liquid chemical protection.

6. Concept of Use:

This tent may replace the Tent, Hexagonal Lightweight, M-1950.

7. Logistical Data:

The tent will be a stock funded, Common Table of Allowance (CTA) item. The estimated cost is approximately \$1200.00. The item will be issued with either of the two overcovers (green/white or green/desert tan) and the winterization kit will be available separately.

8. Remarks:

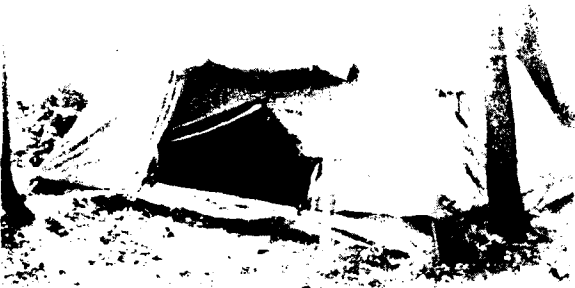
This is an experimental item.



Mobiflex MS-110
American Recreation Products
Weight - 69 lbs.
Height - 54 in.
Floor area - 104 sq. ft.



Grizzly
Anchor Industries Inc.
Weight - 66.5 lbs.
Height - 48 in.
Floor area - 127 sq. ft.



Constellation
Diamond Brand Company
Weight - 60.5 lbs.
Height - 48 in.
Floor area - 115 sq. ft.



Speedome
Outdoor Venture Corporation
Weight - 57 lbs.
Height - 54 in.
Floor area - 105 sq. ft.



Pelmark
Langdon Manufacturing Company
Weight - 63 lbs.
Height - 78 in.
Floor area - 117 sq. ft.

Weights do not include liners.

1. Name of Shelter: Five-Soldier Crew Tent

2. Type of Shelter:

Pole or Frame Supported
Modified Commercial Tent

3. Current Status:

Developmental Stage

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This is a quickly erecting tent (under 5 minutes) with approximately 100 sq ft of floor space, enough height to sit up inside and a weight of approximately 60 lbs. A reversible overcover with green on one side and either white or desert tan on the other side will provide 6 hours of liquid chemical protection. The tent will be available with a winterization kit consisting of a cotton liner and steel pins and will use the standard Army M-1941 or the Yukon stoves.

6. Concept of Use:

This tent will serve as a replacement for the Shelter Half in units designated as users of crew shelters and may replace the Tent, Hexagonal Lightweight, M-1950.

7. Logistical Data:

The tent will be a stock funded, Common Table of Allowance item. The estimated cost is approximately \$1,200.00. It will be issued with either of the two overcovers (green/white or green/desert tan). The winterization kit will be available separately.

8. Remarks:

One of the tents undergoing evaluation is a modification of the Existing Lightweight Hexagonal. Five manufacturers' modified models are undergoing final evaluation. The companies include American Recreation Products' "Mobiflex MS-110", Anchor Industries' "Grizzly", Diamond Brand's "Constellation", Langdon Manufacturing's "Pelmark", and Outdoor Venture's "Speedome". A Preplanned Product Improvement Program will provide 24 hours of chemical protection as well as an official Army camouflage pattern in place of the green on the overcover.



1. Name of Shelter: Standardized Integrated Command Post System
Tent Command Post
2. Type of Shelter: Non-Rigid
Frame-Supported
3. Current Status: Developmental Stage
4. Responsible Engineering Activity:
U.S. Army Natick Research Development and Engineering Center
5. Physical Characteristics:

The Standardized Integrated Command Post System (SICPS) Tent Command Post (CP) is 11' x 11' square, 7' high at the side walls and 9' high at the center ridge. The tent complexes end-to-end, side-to-side and side-to-end. The tent will also annex to a shelter mounted on a High Mobility Multi-Purpose Wheeled Vehicle/Commercial Utility Combat Vehicle and the M577 tracked vehicle. The frame is made of aluminum and is telescopic. The double layer roofcap is fabricated from 18 oz vinyl coated polyester fabric and the side walls are made from 13.5 oz polyester duck fabric. A fire resistant liner is provided to insulate the tent. The complete tent including liner weighs 275 lbs. The tent can be pitched by 2 persons in 20 minutes and struck by 2 persons in 15 minutes.

6. Concept of Use:

This tent is being developed for command post uses Army wide and will be used in all ranges of operating environments.

7. Logistical Data:

A Type Classification-Limited Procurement Urgent (TC-LPU) for the stand-alone Tent CP was granted by HQDA in Feb 87. 1500 units of the SICPS Tent CP are being bought under the TC-LPU. These will be fielded to the Light Infantry Divisions beginning in March 1988. After completion of a formal development program, the SICPS Tent CP will be Type Classified Standard (TC-STD) for Army wide use.

8. Remarks:

A Purchase Description for the Tent CP, prepared by Natick, will be upgraded to a complete Technical Data Package including a Military Specification and Level III Drawings prior to TC-STD. A standard tentage repair kit will be used for field repair of the tent.



1. Name of Shelter: Individual Multi-Purpose Shelter (IMPS)

2. Type of Shelter:

Non-Rigid
Pole-Support

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

IMPS is a commercial item modified for military use. The modifications include camouflage material, a larger hoop at the head for increased shoulder room, a window to allow air circulation and a larger hood to accommodate the helmet when used as an outer garment. It is waterproof and windproof with a multiconfiguration capability which provides the soldier with increased combat effectiveness.

6. Concept of Use:

IMPS can be used as a hasty shelter, a structured shelter, a field expedient outer garment, a bivouac sack and other field applications currently provided by the poncho, rainsuit and shelter half.

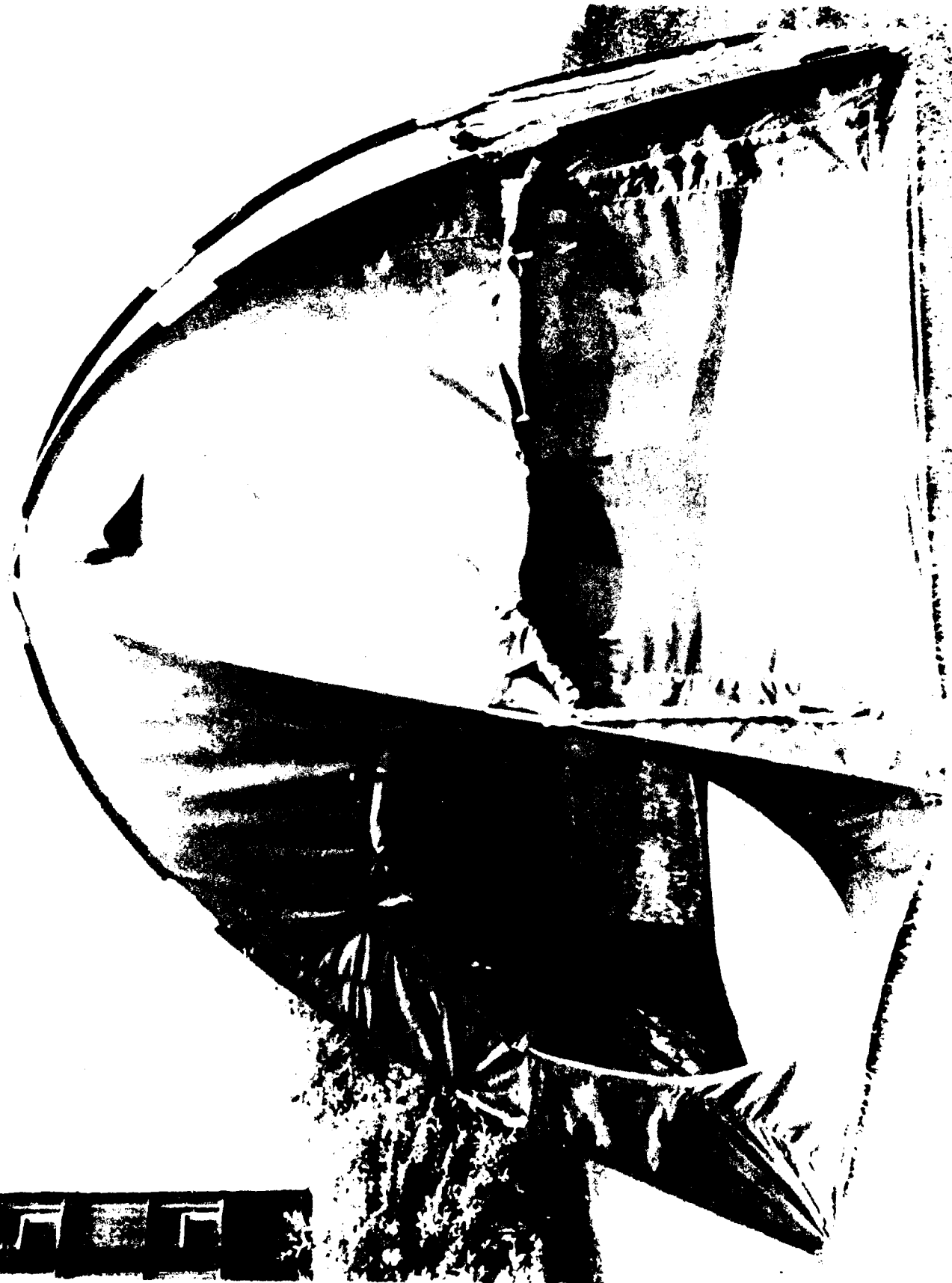
7. Logistical Data:

4850 IMPS with urethane laminate are currently being procured by Natick as part of light fighter buy at a cost of \$130.00 per unit to be issued to the 7th and 10 LIDs.

8. Remarks:

IMPS is scheduled to replace the shelter half and poncho representing a weight reduction of 30%.

OBSOLETE TENTS



1. Name of Shelter: Tent, Pop-Up, 5-Man (Tropical Climate)

2. Type of Shelter:

Non-Rigid
Frame-Supported

3. Current Status:

Obsolete

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

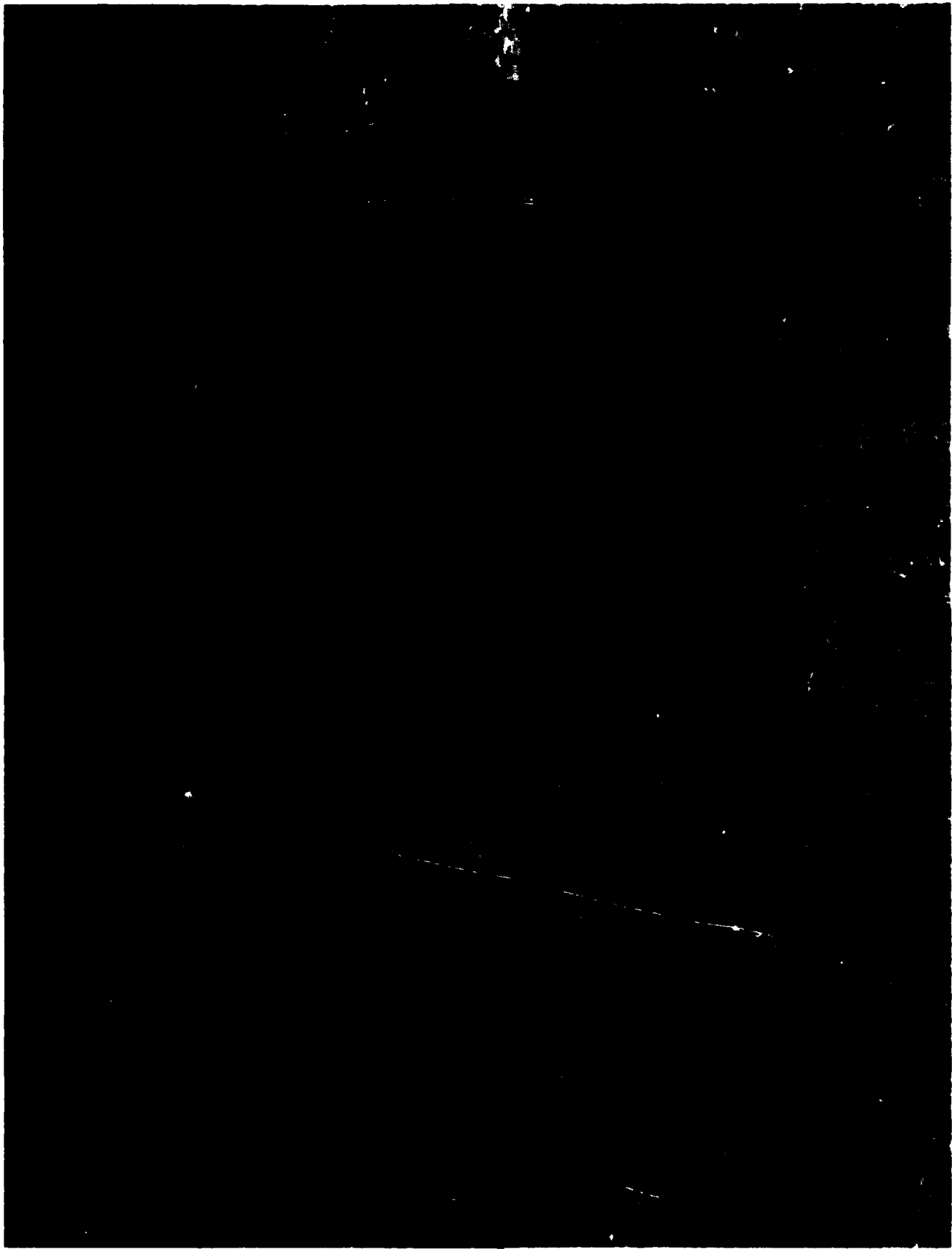
This is a lightweight, hexagonal shaped, frame-supported, umbrella type tent. The frame is constructed mainly of epoxy glass-filled rods and stainless steel tubing to form six supporting ribs. These ribs, when connected at one end, form a spider type assembly with each leg captured in sleeves sewed outside the tent. The fabric portion of the tent is made of 8.5 oz cotton, wind resistant sateen. The tent is equipped with a U-shaped door, 5 screened windows and 2 ventilators. Each side of the tent is 5'9" long, 10'2" wide across flat sides and 6'8" high. The tent has a floor area of 88 sq ft and weighs 43 pounds. The tent can be erected by two men in 20 minutes and struck by 2 men in 10 minutes.

6. Concept of Use:

Designed as a lightweight, portable, 5-man tent that is capable of being easily man packed and quickly erected under various environmental conditions.

7. Logistical Data:

This was an experimental tent which was made in small quantities for evaluation. At the present time, there is no requirement for the item.



1. Name of Shelter: Tent, General Purpose, Small (Experimental)
2. Type of Shelter: Non-Rigid
Frame-Type
3. Current Status: Obsolete

4. Responsible Engineering Activity:
U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

The experimental General Purpose Small Tent is a rectangular, hip-rooted, frame-supported tent 14'6" wide by 19' long by 8'8" high with an eave height of 6'. The tent consists of a simplified steel frame having a maximum of interchangeable parts. The outer skin is made in three sections; two interchangeable ends each having one third of the roof and walls attached and one complete intermediate section. A removable inner partition is furnished with the tent and when installed, it provides a built-in vestibule extending one third of the tent's inner length. A sectionalized, three piece liner is furnished for the remaining two thirds of the tent's inner length. The erected tent has two stovepipe outlets, two peak ventilators and six windows. The tent is capable of being extended in increments of 6'4". The outer skin and partition are made of 9.85 oz FWWMR cotton duck and the liner is made of 6.8 oz FWWMR cotton fabric. Weight of the tent components are: outer skin, 118 lbs; partition, 12 lbs; liner, 30 lbs; frame, 144 lbs, for a total tent weight of 304 pounds. The tent can be erected by 4 men in 25 minutes and struck by 4 men in 20 minutes.

6. Concept of Use:

Designed to replace the standard, pole-supported, general purpose small tent. It is intended to be used as a command post, fire direction center, battalion aid, or for any general purpose use.

7. Logistical Data:

The tent was found unsuitable under arctic conditions due largely to the stiffness and shrinkage of the 9.5 oz duck used for the outerskin. Under temperate climate conditions, the tent was used as a fire direction center and was preferred over the standard item. As an experimental tent the estimated cost was \$500.00. Presently, there is no requirement for the item.

8. Remarks:

A standard repair kit is available for field repair of the item. No special training is required to use the tent.



1. Name of Shelter: Shelter, Frame-Supported, Universal Field Maintenance

2. Type of Shelter:

Non-Rigid
Frame-Type

3. Current Status:

Obsolete

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

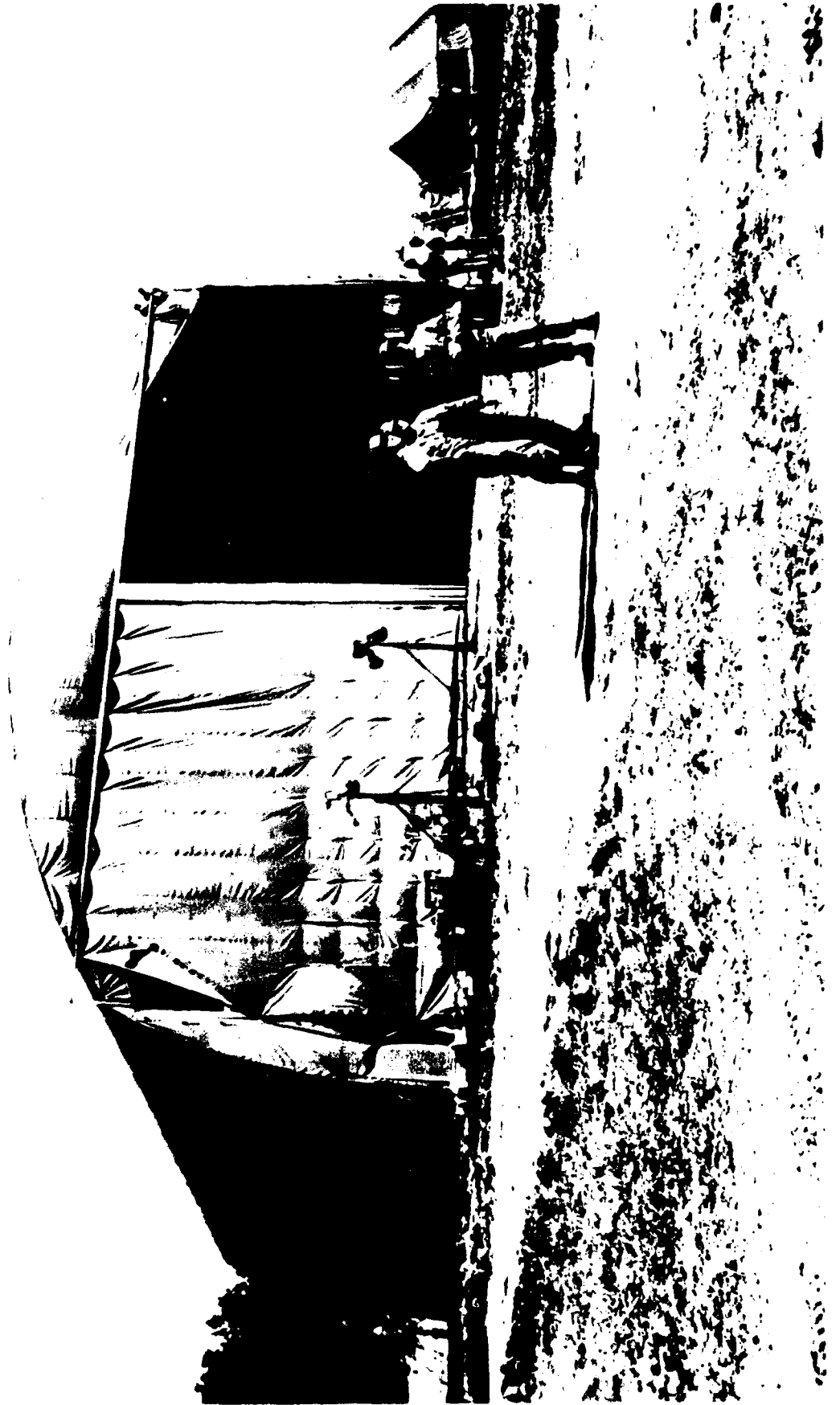
The shelter consists of a frame with a covering made of 9.85 oz cotton duck. A door 12' wide and 20' high is provided at each end of the shelter. A liner containing large screened windows is provided with the tent for tropical climates. The door posts hinge at the top allowing the base of the door to be widened to 24'. The overall dimensions of the shelter are 27' wide, 22' high and 64' long. The complete shelter weighs 5,189 pounds. Twelve men can erect the shelter in 8 hours and strike the shelter in 6 hours.

6. Concept of Use:

Provides a maintenance shelter for the use in hot climates. The shelter is suitable for use with Army helicopters, wheeled and tracked vehicles. The shelter is highly mobile and can be transported by vehicle or aircraft.

7. Logistical Data:

This shelter was reclassified from standard to obsolete since there is no current requirement for the item. The NSN for the shelter was 8340-935-6372.



1. Name of Shelter: Shelter, Aircraft Maintenance, Extendable
2. Type of Shelter:
Non-Rigid
Frame-Supported
3. Current Status:
Obsolete
4. Responsible Engineering Activity:
U.S. Army Natick Research Development and Engineering Center
5. Physical Characteristics:

This is a portable, air-transportable, lightweight, extendable shelter. The frame work is made of lightweight, corrosion-resistant aluminum alloy frame assemblies covered with vinyl-coated nylon blankets. The longest component in the structure is 30' long. Erection is done from the ground by hand labor and no special tools are required. The entire roof is raised by hand winches. The shelter has an accordion-style door at both ends and four personnel doors are provided. The shelter measures 75' wide, 100' long and 30' high. The floor area is 7,500 sq ft and the complete shelter weighs 29,900 pounds. A crew of 20 men can erect the shelter in 50 hours and strike the shelter in 30 hours.

6. Concept of Use:

Provides a large sheltered area with unencumbered floor space for maintenance of Army aircraft.

7. Logistical Data:

This was a commercial item which was reclassified as obsolete since there is no current requirement for the item.



1. Name of Shelter: Tent, Maintenance, Army Aircraft, Air-Supported,
with Auxiliary Rigid Frame

2. Type of Shelter:

Non-Rigid
Combination frame and
air-supported

3. Current Status:

Obsolete

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

This is an air-supported tent made of 18 oz neoprene coated nylon cloth. This is a sectional hemispherical structure with a basic radius of 36' and an 8' semi-cylindrical center section. The length of the shelter may be increased by the insertion of additional center sections. It is held rigid by a continuous flow of high volume, low pressure air, supplied by an electrical blower. The entrance or exit of vehicles is accomplished by releasing the fabric of either end section from the ground anchors and raising the end fabric and arches by means of motor-operated winches. The tent measures 72' wide, 80' long and 37' high. The floor area is 4,647 sq ft and the complete tent weighs 5,920 pounds. Eight men can erect the shelter in 24 hours and strike the shelter in 8 hours.

6. Concept of Use:

Designed to provide a maintenance shelter for both rotary and fixed-wing Army aircraft as well as the heavy tank, permitting traverse of the tank turret for removal of the engine.

7. Logistical Data:

This was an experimental tent. Presently, there is no requirement for the item.



1. Name of Shelter: Tent, Air-Supported, Radome, Nike Hercules System
2. Type of Shelter:
Non-Rigid
Air-Supported
3. Current Status:
Obsolete
4. Responsible Engineering Activity:
U.S. Army Natick Research Development and Engineering Center
5. Physical Characteristics:

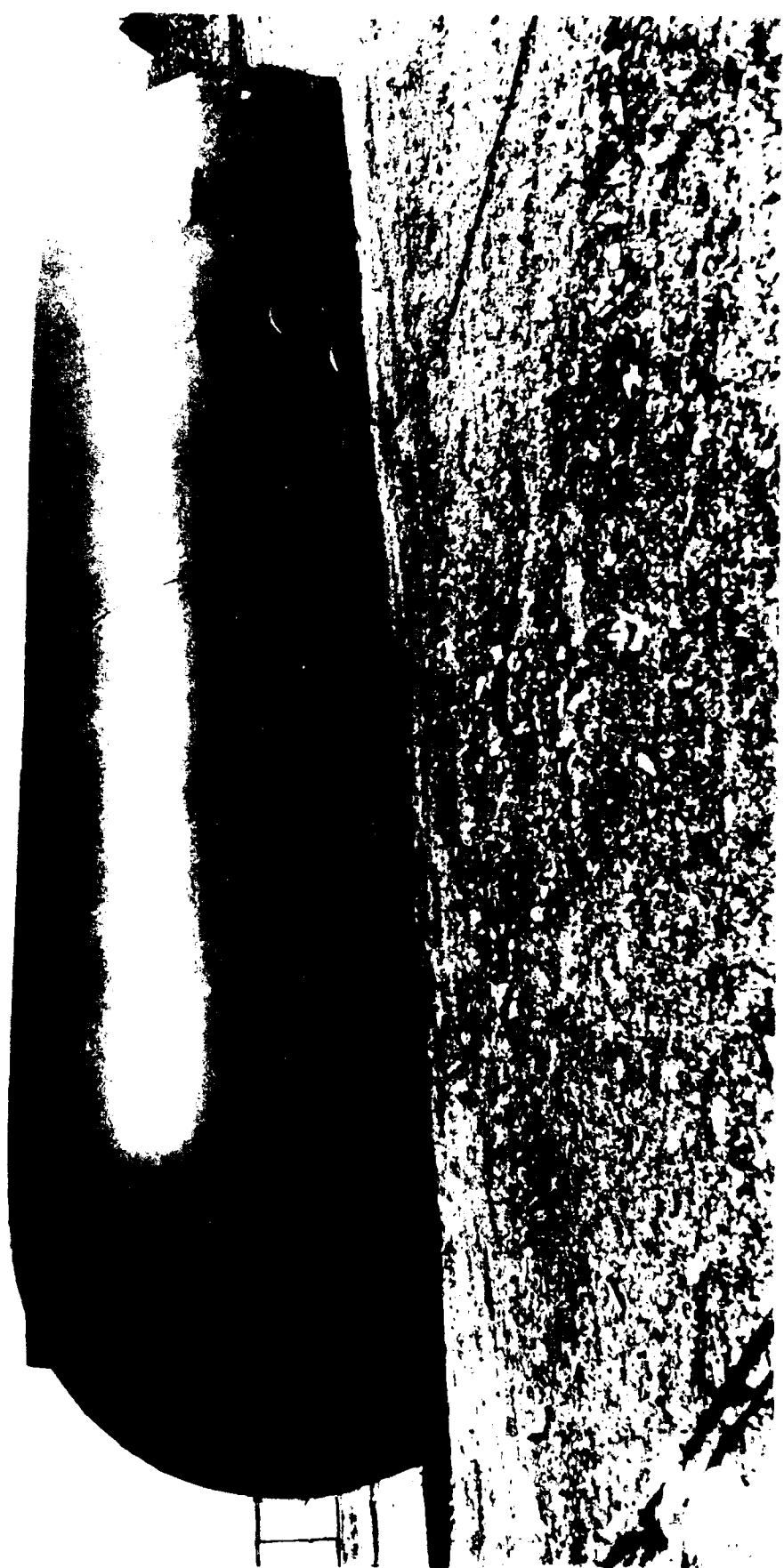
This is a single-wall, air-supported shelter made of 10 oz polyester cloth. The tent is composed of two half sections joined by a continuous 57' long zipper. A round 36" diameter bump-through door is provided for entrance of personnel. The tent is erected and supported by a continuous flow of low pressure air from an electric motor-driven blower located outside the tent. A manual quick-release device is incorporated within the zipper at the top center of the tent. When the device is tripped, by pulling an attached cord, the pressure inside the tent separates the tent in halves. The tent measures 19'8" high with a base diameter of 24' and a major diameter of 27'. The floor area is 572 sq ft and the tent and blower weigh 978 pounds. Four men can erect the shelter in 45 minutes and strike the shelter in 20 minutes.

6. Concept of Use:

Provides protection from the weather to the Nike Hercules acquisition and radar tracking equipment and operating personnel during service and maintenance of this equipment.

7. Logistical Data:

This tent was reclassified from a Standard A item to obsolete since there is no current requirement for the item. The NSN for the tent was 8340-935-1887.



1. Name of Shelter: Tent, Air-Supported, Nike Hercules, Above
Ground Launcher

2. Type of Shelter:

Non-Rigid
Air-Supported

3. Current Status:

Obsolete

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

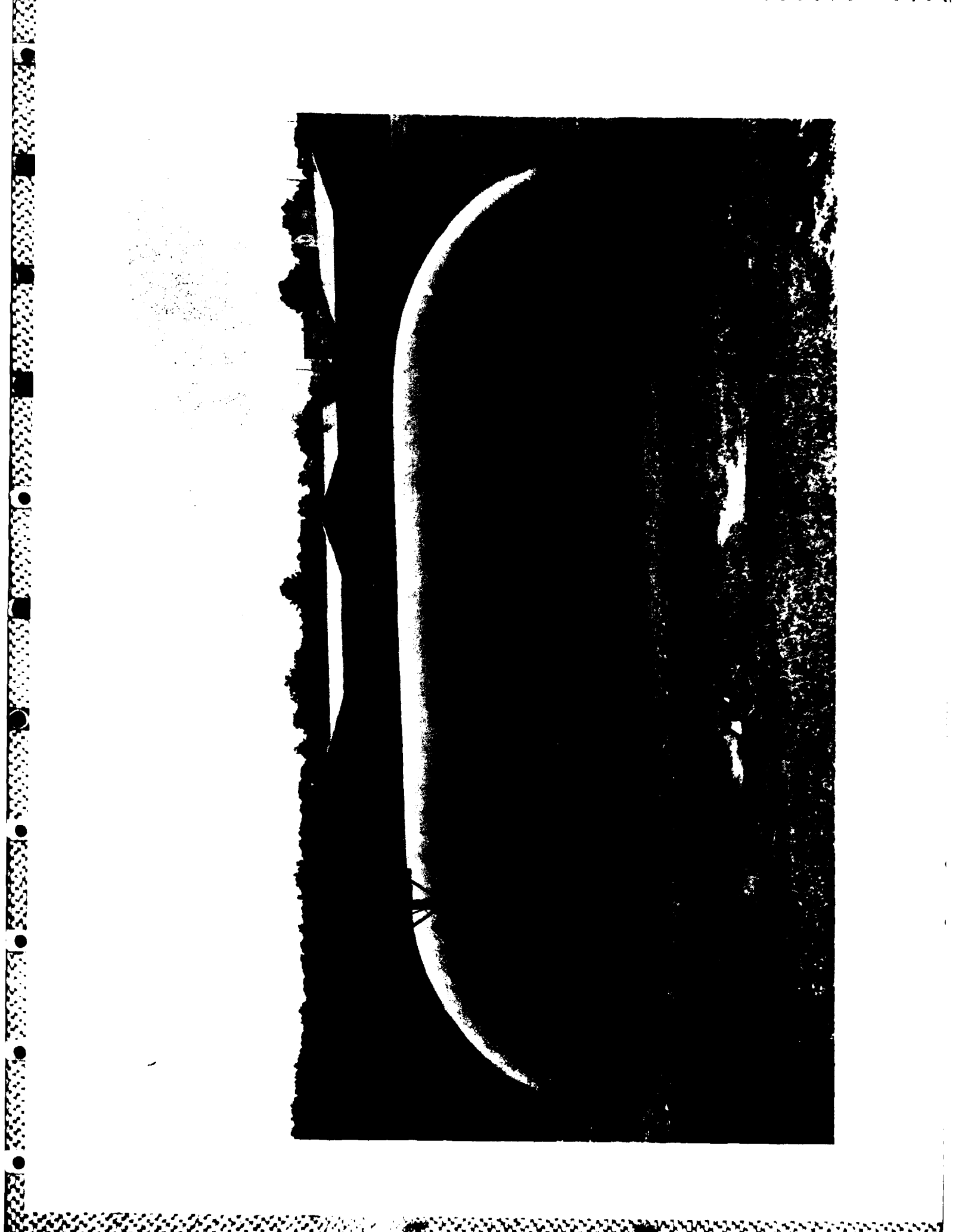
This is a single wall, air-supported tent made of 18 oz -21 oz vinyl-coated nylon cloth. The tent is composed of two half sections joined by a continuous 72' long zipper. A round 36" diameter bump-through door is provided at one end of the tent for entrance of personnel. The tent is erected and supported by a continuous flow of low pressure air from an electric motor-driven blower located outside the tent. A manual quick-release device is incorporated within the zipper at the top center of the tent. When the device is tripped, by pulling the attached cord, the pressure inside the tent separates the tent in halves. The tent measures 17'6" wide, 61' long and 13' high. The floor area is 945 sq ft and the tent and blower weigh 1,855 pounds. Four men can erect the shelter in 1 hour and strike the shelter in 1/2 hour.

6. Concept of Use:

Provides shelter for the Nike Hercules Anti Aircraft Missiles on above ground launching sites and for personnel while servicing the missiles.

7. Logistical Data:

This tent was reclassified from Standard A to obsolete since there is no current requirement for the item. The NSN for the tent was 8340-656-0009.



1. Name of Shelter: Tent, Single Wall, Air Supported, Storage
2. Type of Shelter: Non-Rigid
Air-Supported
3. Current Status: Obsolete

4. Responsible Engineering Activity:
U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

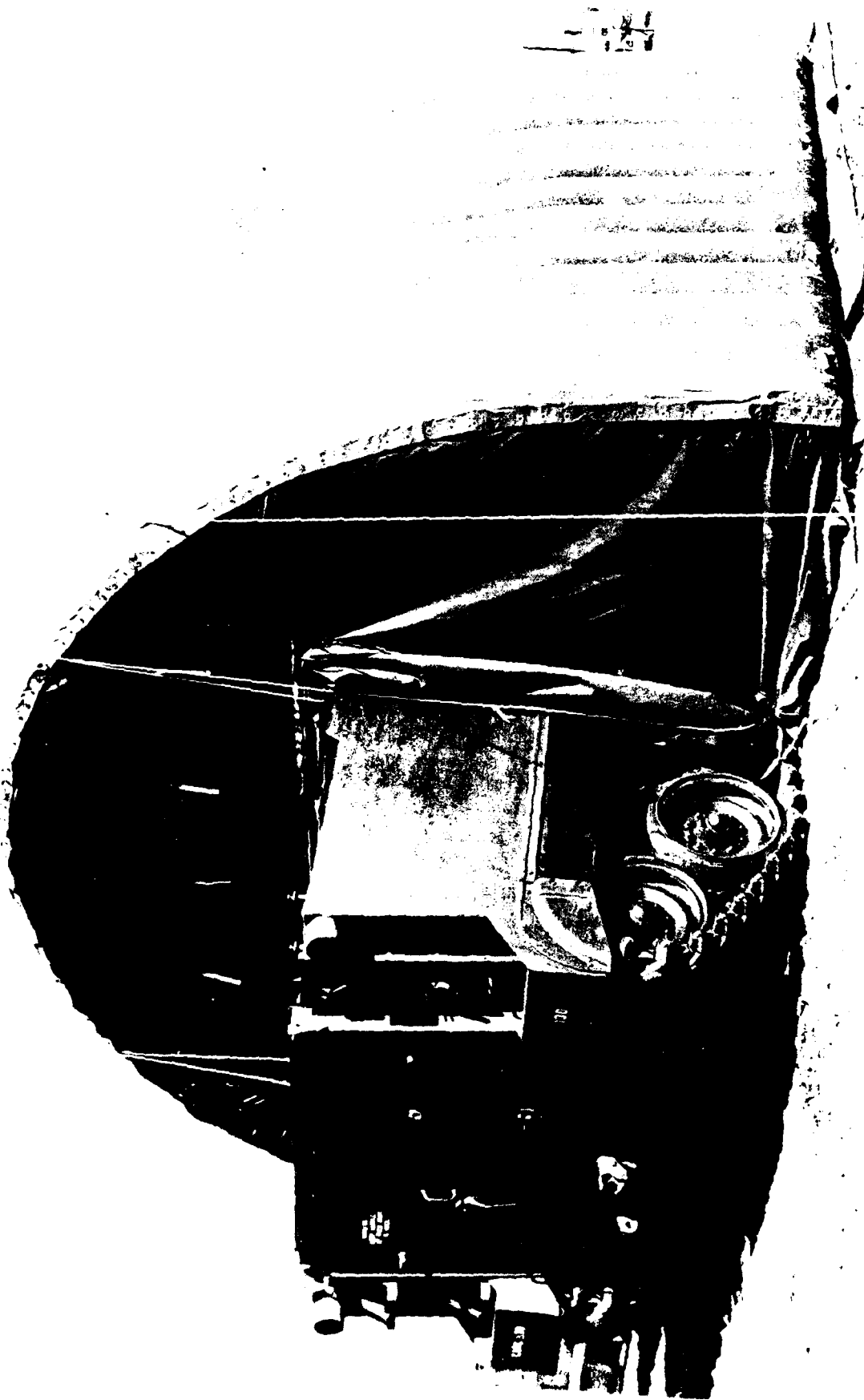
This is an air-supported semi-cylindrical shaped, single wall shelter which provides a large unencumbered floor area for storage of supplies. The fabric used in the shelter is 20 oz vinyl coated nylon. The inflation system consists of a high volume, low pressure blower, supplying the equivalent of 2" of water pressure. Two personnel doors are provided in the tent. When desirable, a vestibule airlock can be attached to one end of the tent to allow for the entrance of large items without the loss of air pressure. The shelter is 40' wide, 72' long and 20' high. The floor area is 2,880 sq ft and the complete tent weighs 1,000 pounds. Six men can erect the shelter in 1-1/2 hours and strike the shelter in 1 hour.

6. Concept of Use:

Provided a large shelter with unencumbered floor space at minimum cost. Can be used wherever electrical power is available. Widely used as a warehouse facility which can be easily and quickly moved.

7. Logistical Data:

This tent was reclassified to obsolete since there is no current requirement for the item.



1. Name of Shelter: Tent Set, Air-Supported, Double Wall, Vehicle Maintenance, Small
2. Type of Shelter:
Non-Rigid
Air-Inflated
3. Current Status:
Obsolete

4. Responsible Engineering Activity:
U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

The tent is a double wall, air-supported tent made of 13 - 15 oz neoprene-hypalon coated nylon cloth. The tent consists of one inflatable section equipped with a removable tank end curtain and a vehicle end curtain. The tent is 20' wide, 13' long and 12' high. Four men can erect the shelter in 1 hour and strike the shelter in 1/2 hour.

6. Concept of Use:

Provides a portable tent to be carried by maintenance personnel to a disabled vehicle in the field. It provides protection to the maintenance crews in cold climates. The shelter can be transported by vehicle or aircraft.

7. Logistical Data:

The shelter was tested under Arctic conditions and it was found that the fabric was too stiff for Arctic use. The test report recommended that a lighter weight, more flexible fabric be used. The requirement for the shelter has now been cancelled.



1. Name of Shelter: Tent, Air-Supported, Double Wall, Aviation, Maintenance, Medium, Sectionalized
2. Type of Shelter:
Non-Rigid
Air-Inflated
3. Current Status:
Obsolete

4. Responsible Engineering Activity:
U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

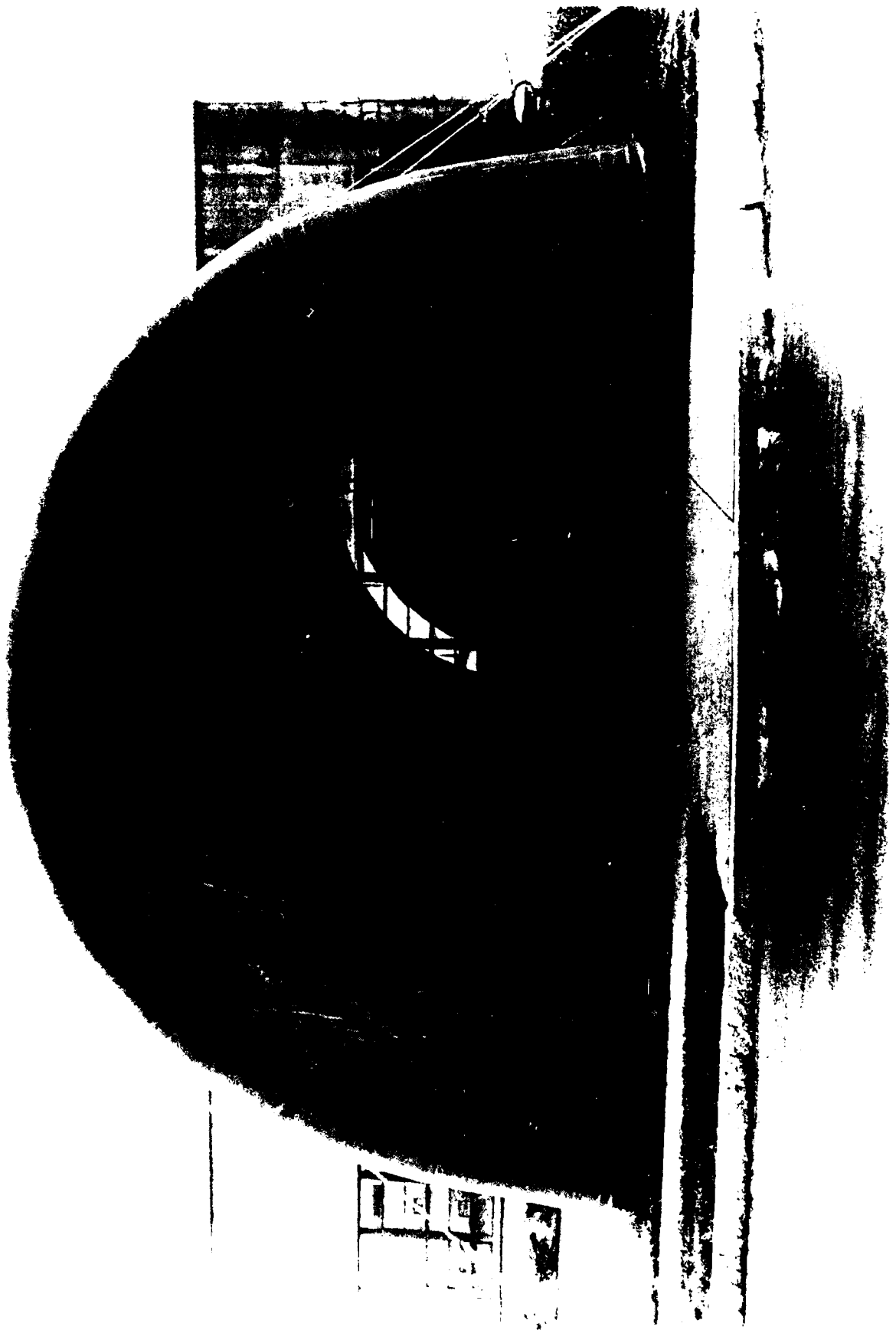
The shelter is a double wall, air-supported sectional tent made of 13 - 15 oz neoprene-hypalon coated nylon cloth. The tent consists of inflatable sections equipped with half zippers sewed to the end tubes. These zippers permit the attachment of various end closures for different aircraft or the attachment of additional sections to lengthen the tent in modules of 10'3". One section is 24' wide, 10'3" long and 16'4" high. Four men can erect a 4 section shelter in 90 minutes and strike the shelter in 60 minutes.

6. Concept of Use:

Provides a medium sized, lightweight and quickly erected shelter for the nose-in maintenance of Army aircraft. The shelter can be used wherever electrical power is available. The shelter can be transported by vehicle or aircraft.

7. Logistical Data:

The item was service tested and it was recommended that it be type classified as LP type to be procured in sufficient quantities to meet immediate operational requirements. However, Type Classification action was cancelled when TRADOC made further evaluations of the requirement and found that the Brooks & Perkins Shelter was the preferred item to meet operational needs.



1. Name of Shelter: Tent, Air-Supported, Double Wall, Maintenance
Multi-Purpose, Sectionalized (Pershing Missile)

2. Type of Shelter:

Non-Rigid
Air-Inflated

3. Current Status:

Obsolete

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

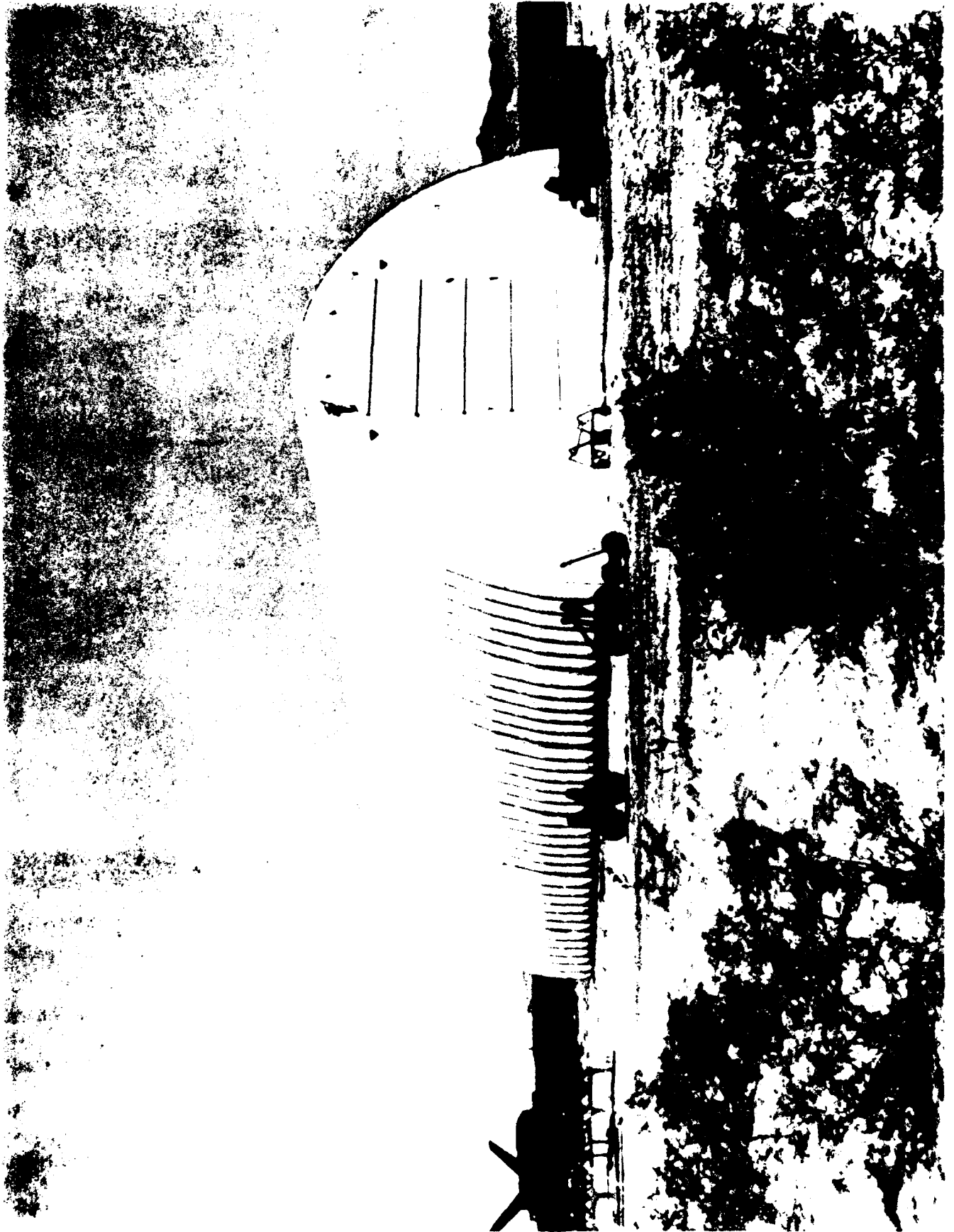
The tent is a double wall, air-supported sectional tent made of 13 - 15 oz neoprene-hypalon coated nylon cloth. The tent consists of four interchangeable, inflatable sections which are equipped with half zippers sewed to the end tubes. The zippers permit the attachment of end curtains or sectionalizing bands that are used for joining the four sections together. The tent is 20' wide, 52' long and 12'6" high. Four men can erect the shelter in 90 minutes and strike the shelter in 60 minutes.

6. Concept of Use:

Designed to house the Pershing Missile and provide weather protection to personnel while performing maintenance and check-out operations under Arctic conditions. The shelter can be transported by vehicle or aircraft.

7. Logistical Data:

The shelter was developed for the Missile Command to satisfy operational needs. The requirement for the shelter was cancelled when the Pershing Missile System was phased out.



1. Name of Shelter: Tent, Air-Supported, Double Wall, Assembly Area,
Nike Hercules Mobile System

2. Type of Shelter:

Non-Rigid
Air-Inflated

3. Current Status:

Obsolete

4. Responsible Engineering Activity:

U.S. Army Natick Research Development and Engineering Center

5. Physical Characteristics:

The shelter is a double wall, air-supported sectional tent made of 13 - 15 oz neoprene-hypalon coated nylon cloth with detachable single wall end curtains made of the same fabric. The tent consists of sections which measure 48' wide, 12' long and 24' high. Sections are joined together to form a shelter of any desirable length. Six men can erect a six section shelter in 4 hours and strike the shelter in 2 hours.

6. Concept of Use:

Designed to provide a large, lightweight, quickly erected shelter for use as a maintenance facility. The shelter can be used wherever electrical power is available. The shelter can be transported by vehicle or aircraft.

7. Logistical Data:

Natick developed and procured one shelter (6 sections) for the Nike Hercules System. However, the requirement for the shelter was cancelled when the mobile concept of the missile was cancelled. The Air Force used the Army's specification and drawing to procure the shelter for use in Southeast Asia.

8. Remarks:

The Air Force experienced problems with seam adhesion in Southeast Asia due to extreme high temperatures encountered.

END
DATE
FILMED
DTIC
4/88