

CHAPTER 9

SURVIVAL ITEMS

Section 9-1. Water Storage Bag

9-1. DESCRIPTION.

9-2. The Water Storage Bag is a plastic bag used to store fresh water or protect miscellaneous items from salt water.

9-3. CONFIGURATION.

9-4. The Water Storage Bag (MIL-B-8571, NIIN 00-485-3034) is made of plastic and is capable of holding 5 quarts of water. The bag comes complete with a buckle, snap fastener and carrying strap for easy attachment to personnel or equipment (figure 9-1).

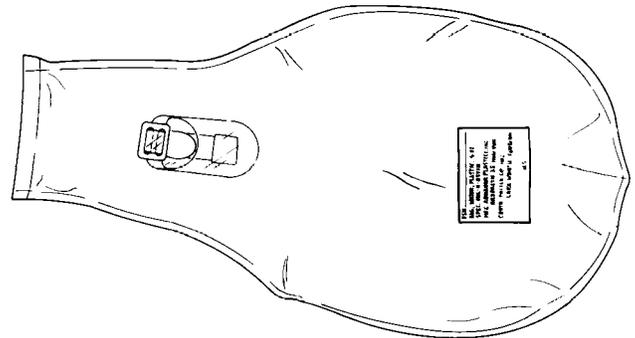


Figure 9-1. Water Storage Bag

009001

9-5. APPLICATION.

9-6. The Water Storage Bag may be used to store fresh water, protect miscellaneous items from salt water, and may be used as water wings when inflated and tied together.

9-7. MAINTENANCE.

9-8. Maintenance of the Water Storage Bag is limited to a Visual Inspection.

9-9. INSPECTION. The Water Storage Bag shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which the water storage bag is stored. To inspect the water storage bag, proceed as follows:

1. Inspect bag for open seams or holes.
2. Replace defective bags if there is a leak.

Section 9-2. Clear Vinyl Water Storage Bag

9-10. DESCRIPTION.

9-11. The Clear Vinyl Water Storage Bag is made with a folded velcro enclosure for leak resistant seal. It has an attached lanyard to secure it to personnel or equipment.

9-12. CONFIGURATION.

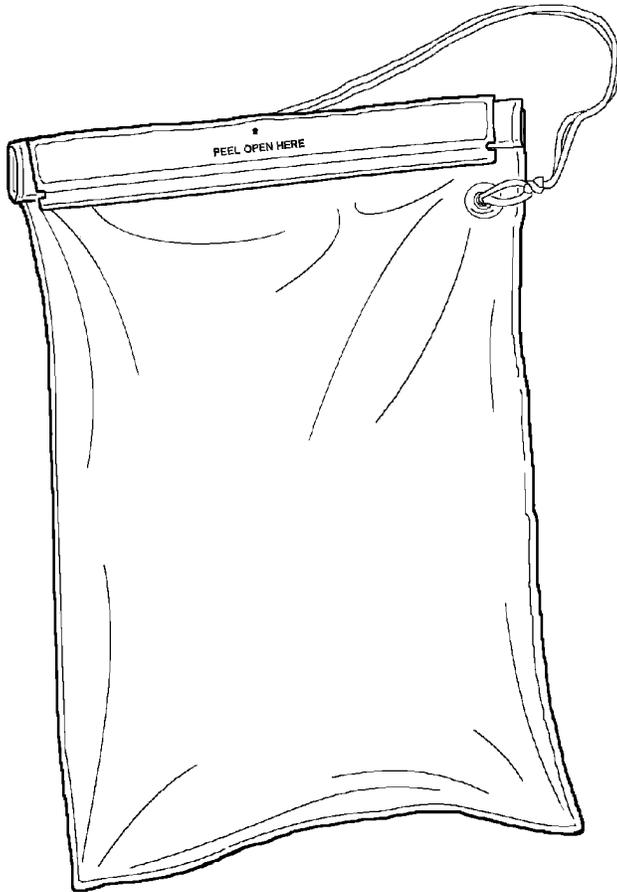
9-13. The Clear Vinyl Water Storage Bag (NIIN 01-452-4193) is 5 x 7 inches (figure 9-2).

9-14. APPLICATION.

9-15. The 5 x 7-inch Clear Vinyl Water Storage Bag shall be rolled and stored behind bagged water in aircrewmember's survival vest. This storage bag is an authorized alternate for one-quart size water bag presently stored in Individual Aircrewmember's Survival Kit, SRU-31/P.

NOTE

Water Storage Bags may be used for storing fresh water or protecting selected items from salt water contamination. The large opening in water bags permit their use for other purposes.



009002
Figure 9-2. Clear Vinyl Water Storage Bag

9-16. MAINTENANCE.

9-17. Maintenance of Water Storage Bag is limited to Visual Inspection.

9-18. INSPECTION. The Clear Vinyl Water Storage Bag shall be inspected upon issue and every 90 days thereafter or at intervals to coincide with inspection cycle of kit or assembly in which water bag is stored. To inspect the Clear Vinyl Water Storage Bag, proceed as follows:

1. Inspect water bag for leakage, open seams, holes, cracks, or other defects.
2. Inspect velcro for retention of closure capability.
3. Inspect lanyard for fraying and security of knots.

NOTE

Defective bags and lanyards shall be replaced.

Section 9-3. Combat Casualty Blankets

9-19. DESCRIPTION.

9-20. The Combat Casualty Blankets are used to provide aircrewmembers with warmth and protection from the elements, and as a signaling aid for rescue purposes.

9-21. CONFIGURATION.

9-22. The Combat Casualty Blankets are of two types. Type I, heavyweight (NIIN 00-935-6665), is 84 x 56 inches. Type II, lightweight (NIIN 00-935-6666), is 96 x 56 inches. Both blankets are olive drab/silver, water-proof, and made of aluminized plastic. Applicable reference document is MIL-B-36964 (figure 9-3 and 9-4).

9-23. APPLICATION.

9-24. The Combat Casualty Blankets are intended to provide warmth and protection from the elements and are capable of acting as a windbreaker, sunshade, poncho, or position indicator on rescue missions. In excessively windy conditions, the Combat Casualty Blankets may be held in position with adhesive tape and can be used in all liferafts.

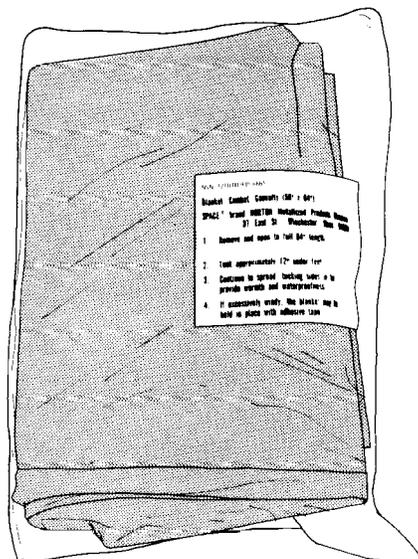


Figure 9-3. Combat Casualty Blanket, Type I 009003

9-25. MAINTENANCE.

9-26. Maintenance of the Combat Casualty Blanket is limited to inspection.

9-27. INSPECTION. The Combat Casualty Blanket shall be inspected upon issue and every 90 days thereafter.

ter, or at intervals to coincide with the inspection schedule of the kit or assembly in which the Combat Casualty Blanket is stored. To inspect the Combat Casualty Blanket, proceed as follows:

1. Inspect for severe abuse/mishandling.
2. Visually inspect for flaking.
3. If bag is opened, place in self-seal bag.



Figure 9-4. Combat Casualty Blanket, Type II 009004

Section 9-4. Wool Blanket

9-28. DESCRIPTION.

9-29. Blanket, Wool (MIL-B-844, NIIN 00-082-5668) (Figure 9-5) is a shrink resistant and non-flammable covering. The standard wool blanket approximately 6 x 8 feet is used for treatment of hypothermia.

9-30. APPLICATION.

9-31. Wool Blankets are part of the Helicopter Rescue Equipment Bag (BGU-8/N), carried on SAR capable rotary wing aircraft.

9-32. MAINTENANCE.

9-33. Maintenance operations shall be performed by Organizational Level or above. All maintenance actions and inspections shall be recorded on appropriate form in accordance with OPNAVINST 4790.2 Series. Maintenance on blankets is limited to inspection and replacement.

9-34. INSPECTION. All wool blankets shall be subjected to a Special Inspection and Visual Inspection.

9-35. Special Inspection. The Special Inspection shall be performed prior to placing in use and every 90 days thereafter.

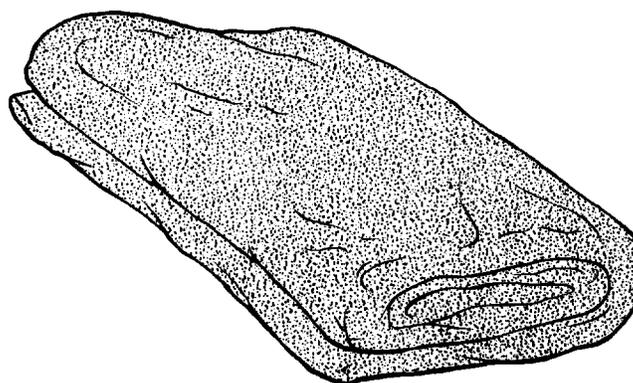


Figure 9-5. Wool Blanket 009005

NAVAIR 13-1-6.5

9-36. Visual Inspection. To perform a Visual Inspection proceed as follows:

NOTE

If any of the following conditions are found, the blanket shall be replaced.

1. Inspect for cuts, deterioration, and fraying.
2. Inspect for oil, fuel, or grease contamination.

3. Make necessary entries on appropriate forms in accordance with OPNAVINST 4790.2 Series.

Section 9-5. Emergency Drinking Water Supply Bottle

9-37. DESCRIPTION.

9-38. The Emergency Drinking Water Supply Bottle (NIIN 00-168-6828) has a capacity of 4 ounces (figure 9-6).

9-39. MAINTENANCE.

9-40. Maintenance of the Emergency Drinking Water Supply Bottle is limited to inspection and cleaning.

NOTE

Clean water bottles with clean water only; no soap should be used.

9-41. INSPECTION. The Emergency Drinking Water Supply Bottle shall be inspected and cleaned upon issue and at intervals to coincide with the inspection cycle of the kit or assembly in which it is stored. Inspect Em-

ergency Drinking Water Supply Bottle for cracks, deterioration and signs of contamination. Clean and refill with clean water. In addition, water supply bottles should be refilled at least every 30 days by the aircrew-member.

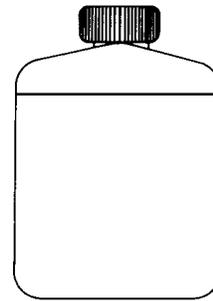


Figure 9-6. Emergency Drinking Water Supply Bottle

009006

Section 9-6. Water Bottle (Canteen)

9-42. DESCRIPTION.

9-43. The Water Bottle (Canteen) (NIIN 00-132-4053) has a capacity of 12 ounces and may be carried as an option (figure 9-7).

9-44. MAINTENANCE.

9-45. Maintenance of the Water Bottle (Canteen) is limited to a Visual Inspection and cleaning.

NOTE

Clean Water Bottle (Canteen) with clean water; no soap should be used.

9-46. INSPECTION. The Water Bottle (Canteen) shall be inspected and cleaned upon issue and at intervals to coincide with the inspection cycle of the assembly in which it is installed. Water supply bottles should be refilled at least every 30 days by the aircrewmember. To inspect the 12 ounce Water Bottle (Canteen), proceed as follows:

2. Inspect for signs of contamination.

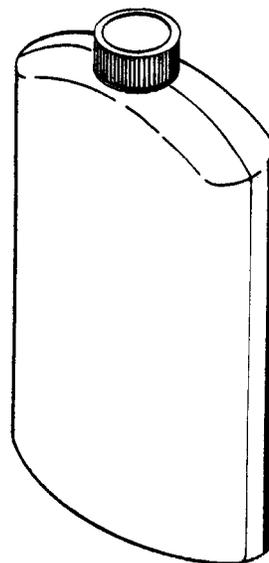


Figure 9-7. 12 Oz. Water Bottle (Canteen)

009007

1. Inspect for cracks and deterioration.

Section 9-7. Bagged Drinking Water, 4-Ounce

9-47. DESCRIPTION.

9-48. Bagged Drinking Water (NIIN 01-124-4543) is intended for emergency use when no other clean water is available. Survival kits will contain bagged water in a quantity which will support the immediate need of a survivor. Emergency drinking water provided in 4-ounce containers (figure 9-8) should be enhanced conservation and reduce the risk of spillage and contamination. The bags shall be stowed in a flat configuration.



Bagged Drinking Water shall be stowed in a flat configuration to prevent folds and creases in the aluminized container.

NOTE

Bagged water can be open purchased from Survivor Industries, 4880 Adohr Lane, Camarillo, CA 93012, (800) 263-6818 or other sources that carry the 4-ounce bagged water.

9-49. CONFIGURATION.

9-50. Bagged Drinking Water is supplied in a 4-ounce aluminized (foil) container. It may be modified in accordance with paragraph 9-56 to accommodate tethering or be stowed unmodified when tethering is not required.

9-51. APPLICATION.

9-52. The four-ounce aluminized bagged water shall be used in all applications where 10-ounce canned water is currently used.

9-53. MAINTENANCE.

9-54. Maintenance of the Bagged Drinking Water consists of Visual Inspection and Fabrication and Installation of Tethering Tab as required.

9-55. INSPECTION. Bagged Drinking Water units shall be inspected upon issue and at intervals to coincide with inspection schedule of survival kits or assemblies in which bagged water units are used. To inspect the Bagged Water, proceed as follows:

NOTE

Bagged water reaching overage while packed in seat survival kits or life rafts may remain in service until the next scheduled inspection.

1. Mark the date of manufacturer (month/year) using black indelible ink on each bag of water. Manufacture date is located on the front of each pouch and on each case.
2. The bagged water has a Service/Shelf life of 5 years from date of manufacture.
3. Place water bag flat on table. Gently press 3 or 4 times with flat of open hand (palm down). Reject bag if any leakage of air or water is detected.
4. Reject bags with breaks or creases in the aluminized material, signs of wear or narrowing of seal along edges, or other signs of exterior damage.

9-56. FABRICATION AND INSTALLATION OF TETHERING TABS. Four-ounce aluminized water bags to be used in the flat configuration (figure 9-11), shall be modified as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Tape, Ordnance, 2W	A-A-1586 NIIN 00-266-5016
As Required	Cord, Nylon, Type I	MIL-C-5040

1. Place 4-ounce aluminized bagged water on flat surface with EMERGENCY DRINKING WATER up and TEAR in upper right corner.
2. Attach lower end of 4-inch length of ordnance tape to upper left corner of the water bag 1 1/2 inches from top edge of bag. Allow upper portion of tape to extend up beyond upper left corner.
3. Fold tape 1/2 inch above top edge of bag down over back of bag to extend 1 1/2 inches from top edge of bag and press tape against bag. This will leave a 1/2 x 2 inch double portion of tape extending above top edge to serve as a tethering tab (figure 9-9).
4. Punch a small hole in center of 1/2 x 2-inch tethering tab.

NAVAIR 13-1-6.5

5. Tether each replacement bag of water separately to the 140-inch survival item tether line in same area in which canned water was tethered.

a. Tie an overhand knot in end of 12-inch length of nylon cord. Pass cord through small hole in 1/2 x 2-inch tethering tab (step 4). Secure knotted-end of 2-inch cord to bag using bowline knot with a 1-inch loop.

b. Secure opposite end of 12-inch cord to overhand loop in the 140-inch survival item tether line using a surgeon's knot positioned snugly against a cord-end overhand knot.

6. When tethering bagged drinking water to the survival vest, follow instructions in step 3a using a 48-inch length of cord. Secure opposite end of cord to survival vest.

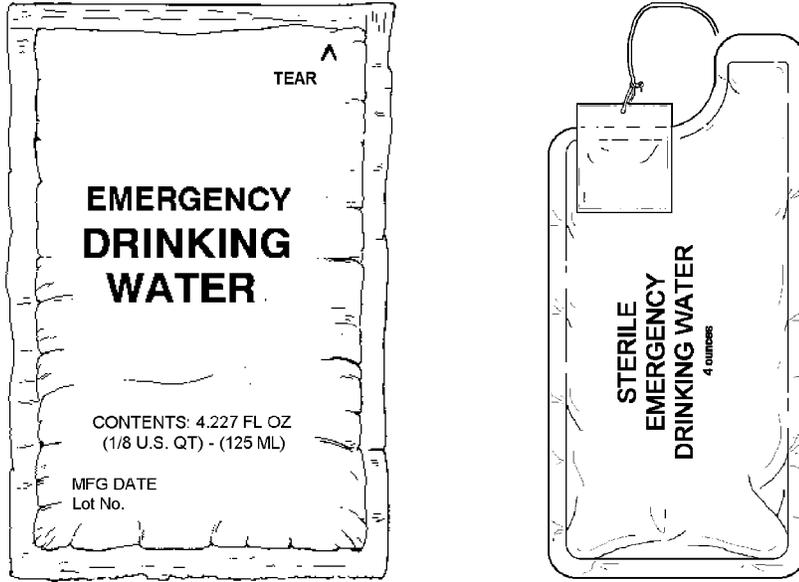


Figure 9-8. Bagged Drinking Water, 4-Oz.

009008

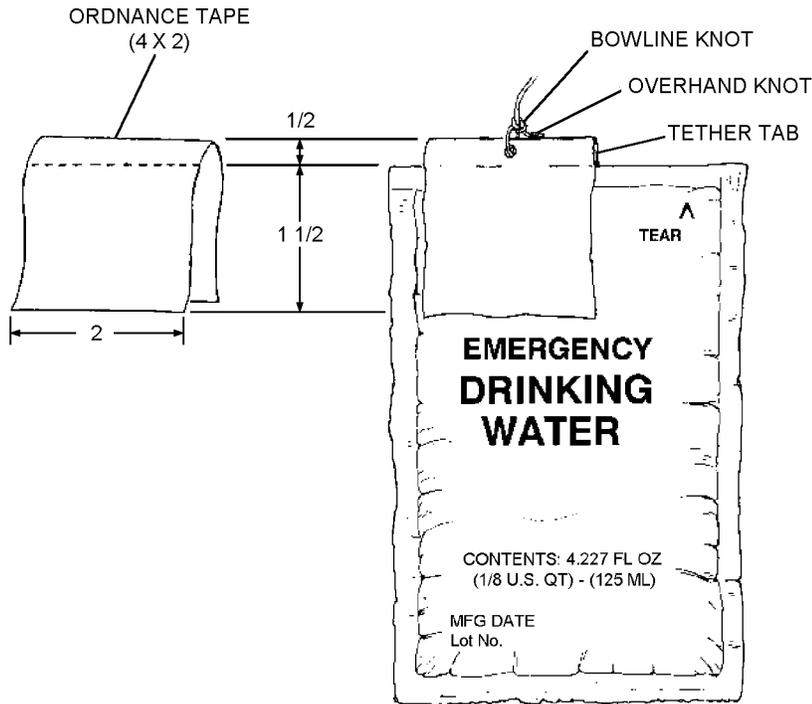


Figure 9-9. Tethering Tab for 4-Oz. Bagged Water

009009

Section 9-8. Water Desalter Kit

9-57. DESCRIPTION.

9-58. Water Desalter Kits (NIIN 00-372-0592) are intended for emergency use when no other fresh water is available. Multi-place liferafts will contain Water Desalter Kits in a quantity which will support the immediate needs of survivors. Water Desalter Kits (figure 9-10) will replace bagged or canned water for use in Arctic/Undertook environments as designated by Type Commanders.

9-59. CONFIGURATION.

9-60. Water Desalter kits are supplied in a sealed metal container containing 8 packages of desalting chemicals, one plastic bag for mixing sea water and desalting chemicals, and one card of repair tape for mending the plastic bag. All parts are tied together with a lanyard. The Water Desalter Kit will be modified in accordance with paragraph 9-66 to remove the restriction on treated water usage given on the last paragraph on the front of the metal container, and to add instructions prohibiting the use of the metal container as a bailing device.

9-61. APPLICATION.

9-62. The Water Desalter Kit shall be used in place of bagged and canned water for Arctic/Antarctic environments as designated by Type Commanders. Refer to NAVAIR 13-1-6.1-1 for liferaft application and quantities.

9-63. MAINTENANCE.

9-64. Maintenance of Water Desalter Kit, Sea Water, Mark 2, Type II consists of Visual Inspection.

9-65. INSPECTION. Water Desalter Kits shall be inspected upon issue and at intervals to coincide with inspection schedule of liferaft assemblies in which they are used. Water Desalter Kits manufactured before 1961 are over-age, all other kits have an indefinite service life and will remain in service until failure to pass inspection requirements. To inspect the Desalter Kit proceed as follows:

1. Inspect metal container for overall condition.
2. Ensure retaining lanyard is securely attached.

3. Ensure electrical tape securing lid of container is firmly attached and is in good condition.

9-66. MODIFICATION.

9-67. Modification of Water Desalter Kit shall be as follows:

Materials Required		
Quantity	Description	Reference Number
1	Marker Tube Type	GG-M-00114 (Green) NIIN 00-973-1061
1	Marker Tube Type	PX-0 (Black) NIIN 00-043-3408
As Required	Cord, Nylon Type 1	MIL-C-5040

1. Using black permanent ink completely mark out the entire last paragraph on the front of the metal container that begins "Do not drink any water the first....".

2. Using block letters, carefully hand print the message as shown on figure 9-10. Print the message across both front and back of container. Letter size is to be approximately 3/8-inch high for the words DO NOT USE AS BAILER. Letter size is to be approximately 1/4 inch high for the words SHARP LIP EDGE MAY DAMAGE RAFT. A soft lead pencil and a straight edge may be used to place guide lines. Use a corner of the green felt tip marker with light pressure to maintain narrow width of lettering. This will permit appropriate thickness and spacing of letters. Note that this is an overprint just heavy enough for the printing underneath to be readily distinguishable. The green color has been selected for the best combination of readability and transparency. Do not use black for lettering. Vigorous rubbing with a soft cloth immediately after application will remove printing errors.

3. Tether each Water Desalter Kit separately using a 48-inch piece of Type 1 nylon cord each. Secure as follows:

- a. Tie an overhand knot in end of 48-inch length of nylon cord. Pass cord through retaining lanyard and secure knotted end of cord using a bowline knot with a 1 inch loop.
- b. Secure opposite end of 48 inch cord to equipment container.

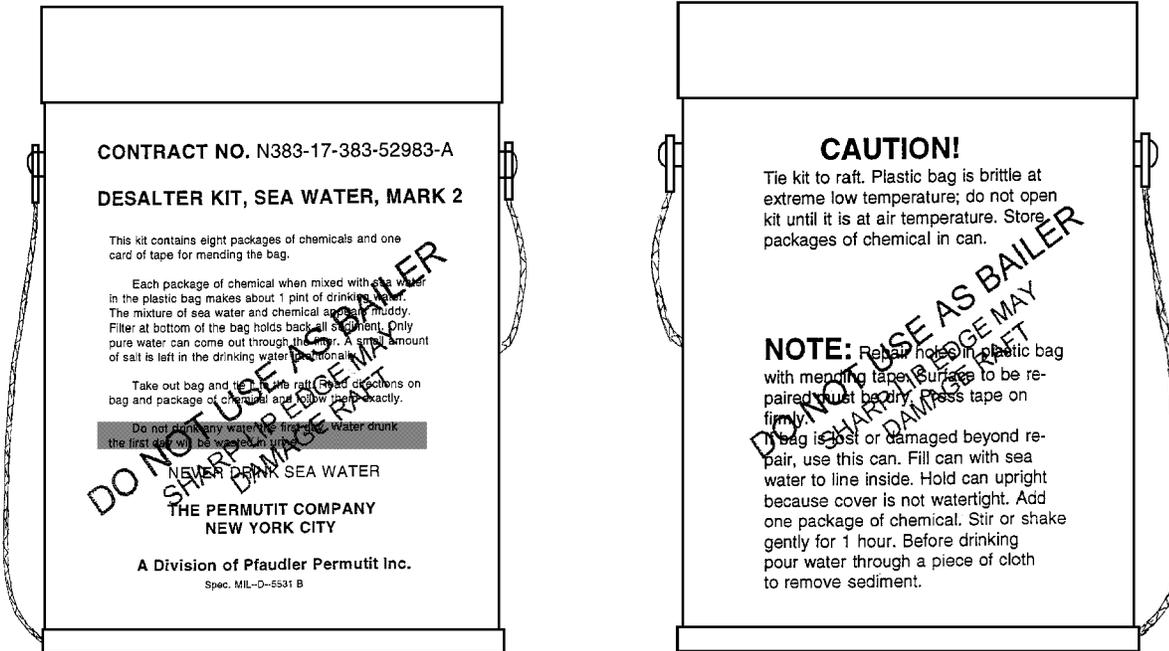


Figure 9-10. Desalter Kit, Sea Water, Mark 2, Type II

009010

Section 9-9. Ground/Air Emergency Code Card

9-68. DESCRIPTION.

9-69. The Ground/Air Emergency Code Card (figure 9-11) is used to assist a few personnel in signaling a rescue aircraft.

9-70. CONFIGURATION.

9-71. The Ground/Air Emergency Code Card has aircraft distress signals and aircraft acknowledgements on the front, and liferaft, paulin, and body signals on the back.

9-72. APPLICATION.

9-73. The Ground/Air Emergency Code Card should be used if communication equipment is not operable or available, or if radio silence is required.

NOTE

For additional protection against mutilation, insert code form in a suitable size interlocking seal plastic bag.

Code Card may be locally duplicated using figure 9-11. Protect card by laminating or sealing in plastic bag.

9-74. MAINTENANCE.

9-75. Maintenance of the Ground/Air Emergency Code Card is limited to inspection.

9-76. INSPECTION. The Ground/Air Emergency Code Card shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or liferaft in which the card is stored. To inspect the Ground/Air Emergency Code Card, ensure that the card is not mutilated or illegible. Insure that plastic code card has rounded corners to prevent sharp edges.

RESCUE / SIGNAL / MEDICAL INSTRUCTION

MAKE SYMBOLS AT LEAST 8FT LONG OF PARACHUTE STRIPS, WOOD, STONES, OR MEN LYING DOWN CONTRASTING TO BACKGROUND.

INTERNATIONAL GROUND - AIR EMERGENCY CODE	
	REQUIRE DOCTOR SERIOUS INJURIES
	REQUIRE MEDICAL SUPPLIES
	UNABLE TO PROCEED
	REQUIRE FOOD AND WATER
	REQUIRE FIREARMS AND AMMUNITION
	REQUIRE MAP AND COMPASS
	REQUIRE SIGNAL LAMP WITH BATTERY AND RADIO
	REQUIRE FUEL AND OIL
	REQUIRE ENGINEER
	INDICATE DIRECTION TO PROCEED
	AM PROCEEDING IN THIS DIRECTION
	WILL ATTEMPT TAKE-OFF
	AIRCRAFT SERIOUSLY DAMAGED
	ALL WELL
	PROBABLY SAFE TO LAND HERE
	NO
	YES
	NOT UNDERSTOOD

GROUND SEARCH PARTIES	
OPERATION IS ENDED; RETURN TO YOUR BASE	LLL
WE HAVE FOUND ALL PERSONNEL	
WE HAVE FOUND ONLY SOME PERSONNEL	
WE ARE NOT ABLE TO CONTINUE, RETURNING TO BASE	XX
HAVE DIVIDED INTO TWO GROUPS, EACH PROCEEDING IN DIRECTION INDICATED	
INFORMATION RECEIVED THAT AIRCRAFT IS IN THIS DIRECTION	
NOTHING FOUND, WILL CONTINUE SEARCH	NN

AIRCRAFT ACKNOWLEDGMENT	
THE RESCUE PILOT WILL SIGNAL HIS ANSWER EITHER BY DROPPING A NOTE OR IN THE FOLLOWING MANNER	
MESSAGE RECEIVED AND UNDERSTOOD	MESSAGE NOT UNDERSTOOD
1. ROCKING FROM SIDE TO SIDE, OR	1. MAKING A COMPLETE RIGHT-HAND CIRCUIT, OR
2. MAKING GREEN FLASHES ON SIGNALLING LAMP	2. MAKING RED FLASHES ON SIGNALLING LAMP
AFFIRMATIVE (YES) ANSWER DIPPING THE NOSE OF HIS PLANE	NEGATIVE (NO) ANSWER FISH TAILING HIS PLANE

PANEL SIGNALS				
NEED MEDICAL ATTENTION	NEED QUININE OR ATABRINE	NEED FOOD AND WATER	NEED FIRST AID SUPPLIES	NEED WARM CLOTHING
NEED GAS AND OIL PLANE IS FLYABLE	PLANE IS FLYABLE NEED TOOLS	NEED EQUIPMENT AS INDICATED SIGNALS FOLLOW	SHOULD WE WAIT FOR RESCUE PLANE	INDICATE ERECTION NEAREST HABITATION
			Legend Silver	
O.K. TO LAND SHOWING LANDING DIRECTION	DO NOT ATTEMPT LANDING	WALK THIS DIRECTION	Orange	

INSTRUCTIONS FOR THE TREATMENT OF WOUNDS	
<p>SUCKING CHEST WOUND</p> <p>A CHEST WOUND THAT SUCKS AIR CAN BE FATAL UNLESS TREATED PROPERLY. MAKE A PRESSURE BANDAGE OVER THE OPENING AND ATTEMPT TO MAKE THE BANDAGE AS AIRTIGHT AS POSSIBLE WITH PLENTY OF ADHESIVE TAPE.</p>	<p>DIRECT PRESSURE</p>
<p>BURNS</p> <p>A FIRST-DEGREE BURN IS JUST PAINFUL REDDENED SKIN, TAKE PAIN RELIEF MEDICATION AND KEEP THE AREA CLEAN. A SECOND-DEGREE BURN HAS BLISTERS IN ADDITION. THE TREATMENT IS THE SAME, BUT DO NOT BREAK THE BLISTERS UNLESS YOU MUST IN ORDER TO WALK. A THIRD-DEGREE BURN MAY BE WHITE AND PAINLESS. IT IS THE MOST SEVERE TYPE AND SHOULD BE COVERED WITH YOUR CLEANEST DRESSING.</p>	<p>PERMANENT TOURNIQUET TECHNIQUE</p> <p>CONTROL BLEEDING BY DIRECT PRESSURE ON THE WOUND, USE OF PRESSURE POINTS, ELEVATING THE INJURED PART ABOVE THE LEVEL OF THE HEART, OR TOURNIQUET. USE TOURNIQUET ONLY WHEN ALL ELSE FAILS AND THE BLEEDING IS ARTERIAL (SPURTING BRIGHT RED BLOOD). ONCE APPLIED, DO NOT REMOVE THE TOURNIQUET UNTIL YOU CAN GET TO A DOCTOR. PLACE THE TOURNIQUET A FEW INCHES ABOVE THE WOUND IN THE DIRECTION OF THE HEART; TIGHTEN UNTIL ALL BLOOD FLOW STOPS AND NO PULSE IS FELT BELOW THE TOURNIQUET. AFTER SEVERAL HOURS, IF NO MEDICAL ATTENTION IS RECEIVED, GANGRENE WILL SET IN AND MUST BE ACCEPTED. IT IS POSSIBLE THAT THE PORTION OF THE LIMB BELOW THE TOURNIQUET WILL HAVE TO BE AMPUTATED, BUT AS LONG AS THE TOURNIQUET IS LEFT IN PLACE, ONE CAN GO FOR SEVERAL WEEKS WITH OUT THE GANGRENE SPREADING PAST THE TOURNIQUET AND CAUSING A FATALITY.</p> <p>BWARE OF APPLYING A TOURNIQUET WHEN YOU DO NOT INTEND TO DO SO. CHECK ANY LIMB WITH AN ENCIRCLING BANDAGE FREQUENTLY FOR PULSE, COLOR, & FEELING.</p>
<p>BASIC WOUND CARD</p> <p>(1) TREAT EVERY BREAK IN THE SKIN AS SOON AS POSSIBLE.</p> <p>(2) RINSE DIRT AND FOREIGN MATTER AWAY WITH LOTS OF PURIFIED WATER.</p> <p>(3) PUT YOUR CLEANEST DRESSING NEXT TO THE SURFACE OF THE WOUND.</p> <p>(4) BANDAGE THE WOUND ENOUGH TO PREVENT FURTHER CONTAMINATION OR INJURY.</p> <p>(5) AN INJURED PART WILL SWELL, CHECK FOR FEELING, PULSE, AND COLOR FREQUENTLY AFTER USING ANY BANDAGE THAT ENCIRCLES A LIMB TO AVOID A TOURNIQUET EFFECT.</p>	<p>BLEEDING</p> <p>FRACTURES</p> <p>USE BASIC WOUND CARE TO CLEAN AND DRESS ANY SKIN BREAKS. THEN IMMOBILIZE THE JOINT ABOVE AND THE JOINT BELOW THE FRACTURE SITE WITH A GOOD SPLINT OVER THE BANDAGE. CHECK THE LIMB FOR PULSE, FEELING, AND COLOR OFTEN SO THAT THE SWELLING LIMB DOES NOT MAKE THE BANDAGE TIGHT ENOUGH TO BECOME A TOURNIQUET.</p>
<p>EXHAUSTION</p> <p>EVEN THE FITTEST INDIVIDUAL CAN EXHAUST HIMSELF IN A SEVERE ENVIRONMENT. CONSERVE YOUR ENERGY WHEN POSSIBLE. DRINK PLENTY OF WATER REST IN THE SHADE AND TAKE SALT TABLETS, IF AVAILABLE.</p>	

BODY SIGNALS	
	NEED MEDICAL ASSISTANCE URGENT. LIE PRONE.
	PICK US UP PLANE ABANDONED
	LAND HERE. (POINT IN DIRECTION OF LANDING)
	CAN PROCEED SHORTLY WAIT IF PRACTICABLE
	ALL O.K. DO NOT WAIT
	DO NOT ATTEMPT TO LAND HERE
	NEED MECHANICAL HELP OR PARTS - LONG DELAY
	USE DROP MESSAGE
	AFFIRMATIVE (YES)
	NEGATIVE (NO)
	OUR RECEIVER IS OPERATING

Figure 9-11. Ground/Air Emergency Code Card

009011

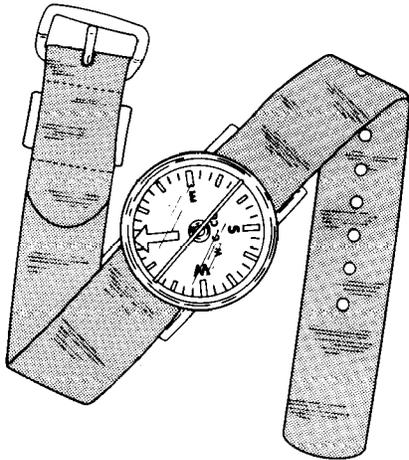
Section 9-10. Magnetic Wrist Compass

9-77. DESCRIPTION.

9-78. The Magnetic Wrist Compass is primarily used for vectoring aircraft and navigational purposes.

9-79. CONFIGURATION.

9-80. The Magnetic Wrist Compass (NIIN 00-809-5252) is a magnetic compass attached to a buckling strap so that the compass may be fastened around the wrist (figure 9-12).



009012

Figure 9-12. Magnetic Wrist Compass

9-81. APPLICATION.

9-82. The Magnetic Wrist Compass, besides being used as a vectoring and navigational aid, can also be used to locate iron-base stones (lodestone). Striking flint, quartz, or sandstone with a lodestone can be used to start a fire.

9-83. MAINTENANCE.

9-84. Maintenance of the Magnetic Wrist Compass is limited to inspection.

9-85. INSPECTION. The Magnetic Wrist Compass shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which the wrist compass is stored. To inspect the Magnetic Wrist Compass, proceed as follows:

1. Check for cracked case.
2. Inspect for broken indicator.
3. Inspect strap for cracks or tears.

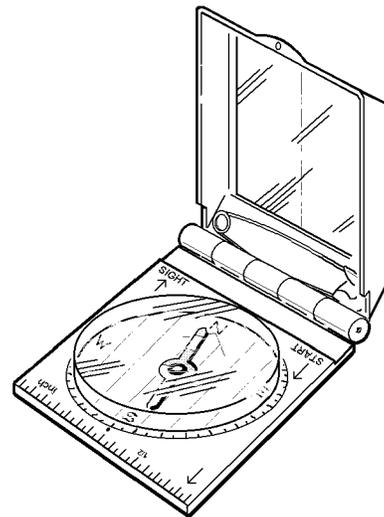
Section 9-11. Landmark Type 27 Compass

9-86. DESCRIPTION.

9-87. The Landmark Type 27 Compass (P/N 800002, NIIN 01-444-2955) is a liquid filled precision compass. It includes a sighting mirror, clear protractor base plate, a sapphire jeweled bearing and a steel needle. The compass is 1 5/8 x 2 5/16 inches and weighs 1 ounce.

9-88. CONFIGURATION.

9-89. The Landmark Type 27 Compass is primarily a hand held compass encased in a clam shell type case to give it greater protection. A unique feature of the compass is that it can be pinned to the clothing to provide for hands-free use (figure 9-13).



009013

Figure 9-13. Landmark Type 27 Compass

9-90. APPLICATION.

9-91. The Landmark Type 27 Compass is intended for the use of downed aircrew personnel and shall be stowed in the individual aircrewmember's survival vest. It is primarily for vectoring aircraft and navigational purposes. It can be used to take bearings from maps as well as line of sight. In addition to being a vectoring and navigational aid, the Type 27 compass can be used to locate iron-base stones (lodestone). Striking flint, quartz, or sandstone with a lodestone can be used to start a fire.

9-92. MAINTENANCE.

9-93. Maintenance of the SILVA Landmark Type 27 Compass is limited to inspection.

9-94. INSPECTION. Inspection of the SILVA Landmark Type 27 Compass shall consist of a Visual Inspection upon issue and every 90 days thereafter or at intervals to coincide with the inspection schedule of the kit or assembly in which it is stowed. To inspect the Landmark Type 27 Compass, proceed as follows:

1. Cracked case, sighting mirror, or protractor base plate.
2. Broken indicator needle.

Section 9-12. Lensatic Compass

9-95. DESCRIPTION.

9-96. The Lensatic Compass MIL-C-10436, (NIIN 01-196-6971) is an induction-damped, lensatic, unmounted, magnetic compass for individual use during day and night time.

9-97. CONFIGURATION.

9-98. The Lensatic Compass is constructed of cast aluminum and has an approximate luminous life of 10 years. It contains Tritium in glass vials, which provide for the self-illumination. Its climate capacity ranges from -50° to +150°F. Its size is approximately 2 in. x 2 in. x 1 in. It comes with a neck lanyard, carrying case and instruction card.

9-99. APPLICATION.

9-100. The Lensatic Compass is intended for the use of downed aircrew personnel and shall be stowed in the individual aircrewmember's survival vest. It is primarily for vectoring aircraft and navigational purposes. It can be used to take bearings from maps as well as line of sight. Refer to NAVAIR 13-1-6.7-1 for survival vest application.

9-101. MAINTENANCE.

9-102. Maintenance of the Lensatic Compass shall be performed by Organizational Level Maintenance or above and is limited to a Visual Inspection. Record all maintenance

actions on appropriate form in accordance with OP-NAVINST 4790.2 series.

9-103. SPECIAL INSPECTION. Special inspection of the Lensatic Compass shall consist of a Visual Inspection upon issue and every 90-days thereafter or to coincide with the inspection cycle of the assembly in which it is installed. To inspect the Lensatic Compass, proceed as follows:

1. Inspect carrying case for tearing and wear. Replace carrying case as necessary. Order carrying case separately from the following source:

Cammenga Corp.
100 Aniline Avenue
Holland, MI 49424
www.cammenga.com
P/N LC-1 (pouch with keeper slide)

2. Inspect compass for overall condition and wear. Replace compass if damaged.

3. Inspect lanyard for wear. Replace as necessary using Type I nylon cord or equivalent.

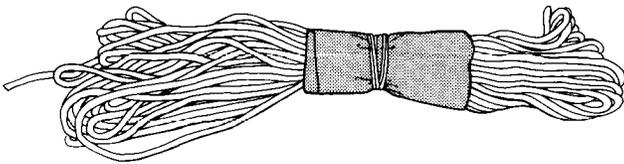
4. Inspect illumination in dark room. Illumination has an approximate life of 10 years.

5. Attach Lensatic Compass to vest in accordance with NAVAIR 13-1-6.7-2.

Section 9-13. Nylon Cord

9-104. DESCRIPTION.

9-105. Nylon Cord (MIL-C-5040, Type I) is supplied in 50-foot lengths and has a breaking strength of 100 pounds. The primary function of the Nylon Cord is to attach survival items after removal from container (figure 9-14).



009014

Figure 9-14. Nylon Cord

9-106. APPLICATION.

9-107. In addition to attaching survival items, the Nylon Cord can be used to construct fish nets, or as a fishing line or snare, to secure straps, to tie down a wind-breaker, to construct a bow or sling, to repair clothes or to construct a ladder.

9-108. MAINTENANCE.

9-109. Maintenance of Nylon Cord is limited to inspection.

9-110. INSPECTION. The Nylon Cord shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or liferaft in which the cord is stored. Inspect the Nylon Cord for signs of cuts and deterioration.

Section 9-14. Hoisting Gloves

9-111. DESCRIPTION.

9-112. Hoisting Gloves (MIL-G-2366) (figure 9-15) are heavy duty leather and are worn by hoist operators. Hoisting Gloves are used during hoist operations to protect the operator's hands from burns, chafing, or cuts caused while guiding the cable during hoist operations.

9-113. APPLICATION.

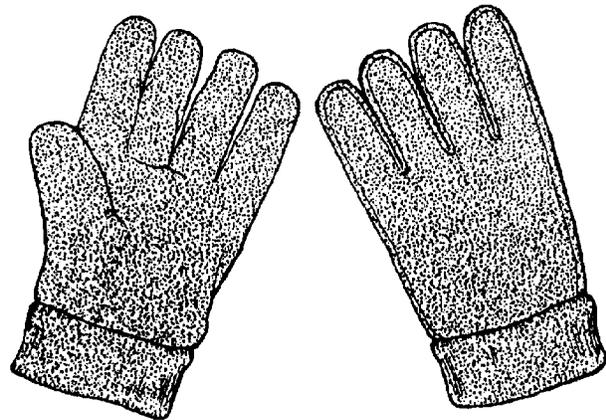
9-114. Hoisting Gloves are part of the Helicopter Rescue Equipment Bag (BGU-8/N and P/N 261), carried on SAR capable rotary wing aircraft.

9-115. MAINTENANCE.

9-116. Maintenance operations shall be performed by Organizational Level or above. All maintenance actions and inspections shall be recorded on appropriate form in accordance with OPNAVINST 4790.2 Series. Maintenance on Hoisting Gloves is limited to Special Inspection and replacement.

9-117. INSPECTION. All Hoisting Gloves shall be subjected to a Special Inspection.

9-118. Special Inspection. The Hoisting Gloves shall be inspected prior to placing in service and every 90 days thereafter. To perform a Special Inspection, proceed as follows:



009015

Figure 9-15. Hoisting Gloves

NOTE

If any of the following conditions are found, the gloves shall be replaced.

1. Inspect for cuts, tears, fraying, and abrasions.
2. Inspect for cracks in the leather and excessive dryness.
3. Inspect for oil, fuel, or grease contamination.
4. Make necessary entries on appropriate forms in accordance with OPNAVINST 4790.2 Series.

Section 9-15. Dye Marker

9-119. DESCRIPTION.

9-120. The Dye Marker is used to attract attention of rescue aircraft. The dye is exhausted in 20 to 30 minutes and has a fluorescent green color which ceases to be a good target after an hour. It is visible at an approximate distance of 10 miles at 3,000 feet altitude.

9-121. CONFIGURATION.

9-122. The Dye Marker (MIL-S-17980, NIIN 00-270-9986) consists of a yellow, vinyl resin-coated cloth pouch with an attaching tape. The dye medium is contained within the pouch (figure 9-16).

9-123. APPLICATION.

9-124. The Dye Marker, deployed to attract attention of rescue aircraft, may be attached to a life preserver, clothing, or other equipment. The dye is activated by pulling the tab at the top of packet. If rapid dispersion of dye is desired, agitate the Dye Marker in the water.

9-125. MAINTENANCE.

9-126. Maintenance of the Dye Marker is limited to inspection.

9-127. **INSPECTION.** The Dye Marker shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the

kit or liferaft in which the Dye Marker is stored. To inspect the Dye Marker, proceed as follows:

NOTE

Vent opening allows pocket to breathe and expand during altitude changes.

1. Inspect packet for open seams or holes.
2. Replace defective dye markers.

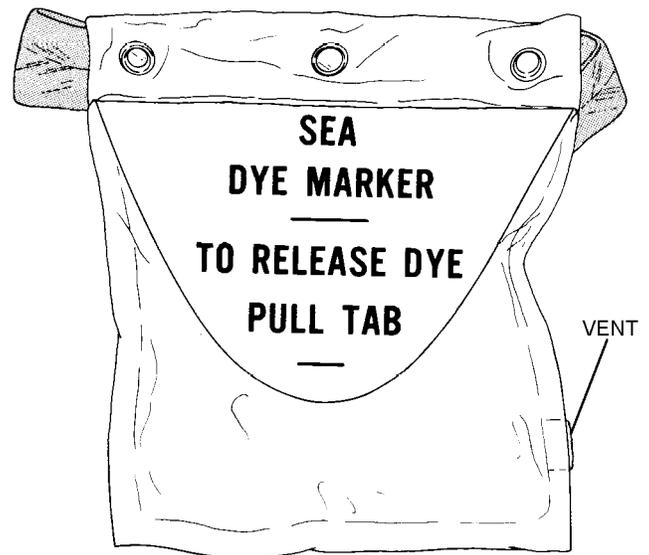


Figure 9-16. Dye Marker

009016

Section 9-16. Medical First Aid Kits, General Purpose

9-128. DESCRIPTION.

9-129. Medical First Aid Kits provide first aid treatment of common injuries and illnesses encountered in an aviation survival environment. They are intended for emergency use only and not to supplant usual sources of routine medical care.

9-130. CONFIGURATION.

9-131. There are two types of Medical First Aid Kits, General Purpose: Aircraft Panel Mounted, NIIN 00-919-6650 (figure 9-17) and Rigid Case for Life Rafts, NIIN 00-922-1200 (figure 9-18). The contents are labeled for easy access and placed in individual packages. The contents of each kit are listed in table 9-1.

9-132. APPLICATION.

9-133. Medical First Aid Kits are intended for use when medical assistance is required as a result of injury or infection.

9-134. MODIFICATION.

9-135. There are no authorized modifications to the Medical First Aid Kits at this time.

9-136. MAINTENANCE.

9-137. Maintenance or repair of the Medical First Aid Kits shall be performed by Organizational Level or above. All First Aid Kits are subject to Place-In-Service Inspections and Special inspections.



Figure 9-17. First Aid Kit (Aircraft Panel Mounted)

009017

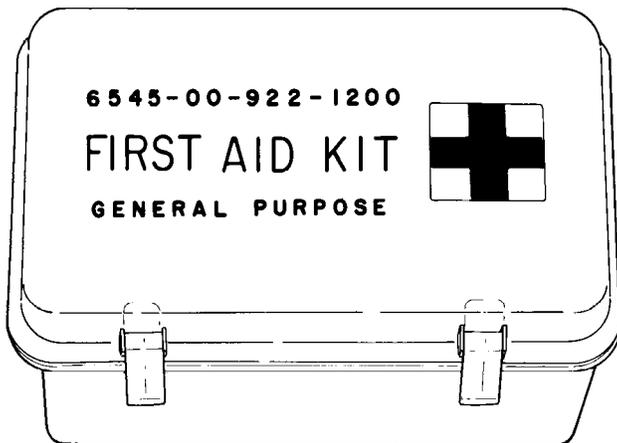


Figure 9-18. First Aid Kit (Rigid Case)

009018

9-138. INSPECTION. Inspections shall be performed prior to placing in service and at intervals to coincide with the equipment or aircraft in which the Medical First Aid Kit is installed. Record all inspections in accordance with OPNAVINST 4790.2 series.

NOTE

Inspections of Medical First Aid Kits and the replacement of damaged, expired or deteriorated medical items shall be the responsibility of the Organizational and/or Intermediate level maintenance activities.

Dated medical items reaching their expiration date while the assembly is packed can remain in service until the next inspection cycle of the equipment or aircraft in which it is installed.

Medical items that have been re-called by NAVMEDLOGCOM messages will only be removed and replaced when directed by an Aircrew Systems Bulletin (ACB).

9-139. Place-In-Service and Special Inspections for Medical First Aid Kit, General Purpose, Panel-Mounted. Perform the place in service and special inspections as follows:

NOTE

Failure during any portion of a place-in-service inspection renders the Medical First Aid Kit non-RFI and shall be reported in accordance with OPNAVINST 4790.2 series.

1. Inspect casing for rips, tears, contamination and proper operation of slide fastener.
2. Inspect contents for damaged, expired or deteriorated medical items. Record expiration date of dated materials on appropriate forms.
3. Secure slide fastener as follows:
 - a. Close slider and place slider tab over locking ring and secure using an anti-pilferage seal, NIIN 01-242-0583 or equivalent. Cut off excess strap or wire.
 - b. If required locally, annotate the next special inspection due date on plastic tab of seal or on a separate tag with indelible ink.

NOTE

First Aid Kits which have broken pilferage seals or are suspected of being pilfered shall be re-inspected.

4. Repair or replace medical items as necessary during the special inspections.

Table 9-1. Medical First Aid Kits, General Purpose

Contents			Liferaft Rigid Case NIIN 00-922-1200	Aircraft Panel-Mounted NIIN 00-919-6650
Item	Size (Not [E]F)	NIIN		
Bandage/comp/camou	2 x 2	00-200-3075	1PG	1PG
Bandage Muslin Comp/Brown or Flesh	37 x 37 x 52 triangle	00-201-1755	1	1
Gauze, Petrolatum	3 x 36	01-112-6414	3	3
Blade, Surgical Straight/single edge	2 1/4 x 1/2	00-754-0426	1PG	1PG
Povidone-Iodine	(Not [E]P)	(Not [E]P)	10	10
Dressing, Field Camouflaged	4 x 7	00-159-4883	3	3
Bandage/gauze/comp camou/olive green	3 inches x 6 yd	00-200-3185	2	2
Adhesive tape, surgical	1 inch x 1 1/2 yd	01-060-1639	3	3
Bandage, adhesive, flesh	3/4 x 3	00-913-7909	18	18
First Aid Kit Eye Dressing	N/A	00-853-6309	1	1
Bandage, elastic	2 inches x 4 1/2 yd	00-935-5820	1	—
Scissors (blunt ends)	7 1/4	00-935-7138	1	—
Glove Exam/treatment	Large	01-364-8554	2PR	—
Bag, Plastic	4 inches x 6 inches	00-926-9041	1	—
Instruction sheet/card (Not [E]B)	N/A	N/A	1	2
Case Medical Instrument	N/A	00-131-6992	1	—
Case Medical Instrument	N/A	00-912-9860	—	1

Notes: 1. Suitable alternatives to non-dated medical items are authorized. Alternate items should not exceed the size requirements of current listed medical items to avoid bulkiness.
2. Povidone Iodine pads (NIIN 01-010-0307), 10 each, is an authorized alternate for NIIN 00-148-7096 and NIIN 00-914-3593.
3. Aircraft Panel mounted first aid kit contains two instruction cards, one for artificial respiration and one for general first aid.
4. Ammonia Inhalants shall be removed from kits and discarded.
5. All sizes are in inches unless otherwise indicated.

NAVAIR 13-1-6.5

9-140. Place-In-Service and Special Inspections for Medical First Aid Kit, General Purpose, Rigid Case For Liferafts.

NOTE

Failure during any portion of a place-in-service inspection renders the Medical First Aid Kit non-RFI and shall be reported in accordance with OPNAVINST 4790.2 series.

1. Inspect case for contamination, cracks and proper operation of latches.

2. Inspect contents for damaged, expired or deteriorated medical items. Record expiration date of dated materials on appropriate forms.

3. Open lid and drill one relief hole in lid of case, 1 inch from any lid edge using a #60 drill bit.

4. Using indelible ink mark the lid with the following: "Suitable for use with multiplace liferafts".

5. Replace medical items as necessary during the special inspections.

Section 9-17. Individual Aircrewmember's Survival Kit (SRU-31/P)

9-141. DESCRIPTION.

9-142. Individual Aircrewmember's Survival Kit SRU-31/P (NIIN 00-478-6504) consists of two parts; Packet 1 - Medical (NIIN 00-231-9421) and Packet 2 - General (NIIN 00-152-1578). Each packet contains an inner carrying packet. Each inner carrying packet is identified as Mandatory Medical Packet No. 1A and Optional Medical Packet No. 1B and Mandatory General Packet No. 2A and Optional General Packet No. 2B. Each inner carrying packet contains a packet bag to house the required survival items and additional adhesive discs. The Individual Aircrewmember's Survival Kit SRU-31/P is intended for use in emergency situations.

the equipment in which the Individual Survival Kit is installed.

Aircrewmembers may obtain medical items through their command Flight Surgeon or Corpsman. Addition of medical items shall be considered optional and will be installed into survival vests in the same manner as other optional items in accordance with NAVAIR 13-1-6.7-2. Replacements for dated medical items are the responsibility of the Aircrewmember or Aviation medical representative.

Components of the SRU-31/P, which are not available through supply, may be obtained through open purchase.

NOTE

Contents of the SRU-31/P shall be the responsibility of the Organizational and/or Intermediate level maintenance activities.

Dated medical items are no longer required to be part of the Individual Survival Kits. Imodium, Aspirin and Eye Ointment shall be removed from all Individual Survival Kits (SRU-31/P and SRU-31A/P) before placing in service or at the next inspection cycle of

9-143. CONFIGURATION.

9-144. Each packet can be replaced individually. Each item is packed in a transparent bag, which is hermetically sealed and kept in place by means of adhesive discs. Additional adhesive discs are in the optional packets No. 1B and 2B.

9-145. Table 9-2, Individual Aircrewmember's Survival Kit, SRU-31/P is a list of contents for both the current (figure 9-19) and updated SRU-31/P kit (figure 9-20). Refer to paragraph 9-151 for maintenance.

Table 9-2. Individual Aircrewmember's Survival Kit, SRU-31/P

Item	Qty/Size	NIIN/Source	Current	New
Medical Kit - Packet 1A				
Instruction Card	1 Ea	Locally Reproduce	X	X
Soap, Toilet	1 Ea	00-551-0375	X	X
Bandage, Gauze	1 Ea (2 Inch X 6 Yds)	00-913-7906	X	X
Adhesive Tape, Surgical	1 Ea (1/2 Inch X 10 Yds)	01-221-1495	X	X
Compress Bandage, Camouflaged	1 Ea (4 X 4 Inches)	00-200-3080	X	X
Bandage Adhesive	6 Ea (3/4 Inches X 3 Inches)	00-913-7909	X	X
Sunscreen And Insect Repellent (Sunscreen (Not))	3 Ea (0.3 fl oz Packets)	01-452-9582	X	X
Water Purification Tablets (Iodine)	1 Bt (50 Tabs)	00-985-7166	X	X
or				
Water Purification Tablets (Chlorine)	1 Strip (10 Tablets)	01-352-6129	X	X
Water Receptacle	1 Ea		X	
Lipstick, Antichap	1 Tube	01-436-0607		X
Skin Closures, Adhesive Surgical	12 Ea (1/4 Inch X 3 Inch)	00-913-5874		X
Rescue/Signal, Medical Instruction Panel (Note)	1 Ea	Locally Reproduce		X
Adhesive Tape Surgical, Moleskin	1 Ea (4 X 5 Inches)	00-203-6010		X
Burn Cream (Not)	2 Ea (1/8 oz (3.5g))	Blistex		X

Table 9-2. Individual Aircrewmember's Survival Kit, SRU-31/P (Cont)

Item	Qty/Size	NIIN/Source	Current	New
General Kit - Packet 2A				
Instruction Card	1 Ea	Locally Reproduce	X	X
Fire Starter (Not E14)	1 Ea	Mfg Product (P/N SP-102F) or 01-160-5618	X	X
Wrist Compass	1 Ea	01-326-1654 or 00-809-5252	X	X
Water Bag	1 Ea (1 Qt)	Mfg Product (P/N SP-31) or 01-452-4193	X	X
Razor, Surgical	1 Ea	01-363-1212	X	X
Fishing Kit	1 Set	01-181-3154		X
Face Paint Camouflage (Not E15)	2 Tubes (Black and Brown)	Mfg Product (P/N CSM-625)		X
or				
Paint, Face Camouflage	1 Ea (Compact)	01-262-0635		
Saw Flexible	1 Ea	00-296-2529		X
Tourniquet (Not E16)	1 Ea	00-383-0565		X
Signal Panel Blanket W/Inst.	1 Ea	00-935-6667	X	
Flash Guard	1 Ea		X	
Mirror	1 Ea	00-105-1252	X	
Charms, Energets, Chiclets	1 Pk (Ea)		X	
Nodoz (Not E18)	10 Tabs		X	
Mosquito Headnet and Mittens	1 Set	01-192-2357	X	
Tweezers and Pins	1 Set		X	

- Notes
1. Sunscreen does not have an expiration date.
 2. Refer to Figure 9-11 for duplication.
 3. Burn cream is optional. No expiration date.
 4. SRU-31/P kit is considered RFI without the presence of fire starter.
 5. Camouflage paint, P/N CSM-625, may be purchased from: Hally Caller, 443 Wells Rd, Doylestown, PA 18901, 215-345-6354. Request colors when ordering.
 6. If required, the tourniquet shall be modified in accordance with paragraph 9-159, step 6.
 7. All SRU-31/P kits currently in service or SRU-31/P kits received from supply that are not updated, may be placed into service and/or can remain in service until they are no longer serviceable. Items in the current SRU-31/P that will no longer be part of the new SRU-31/P kits may be removed at command discretion and the new items added. Items not available through supply may be obtained through open purchase. Items shall be similar in size and usage.
 8. Nodoz is an authorized substitute for Charms, Energets, and Chiclets. During inspection Nodoz may be removed from current configurations of SRU-31/P survival kits without any replacement.

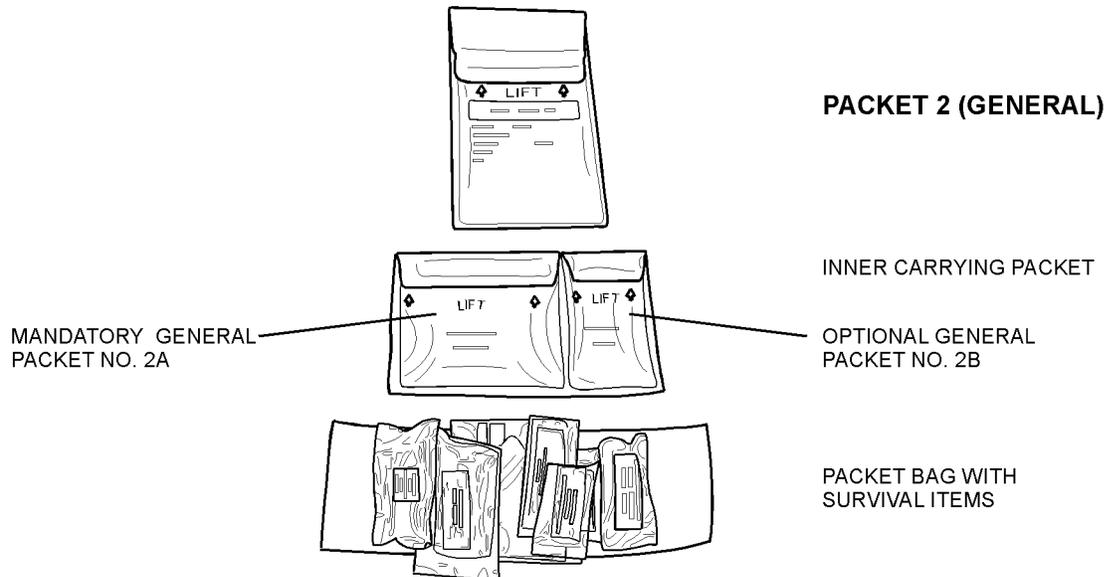
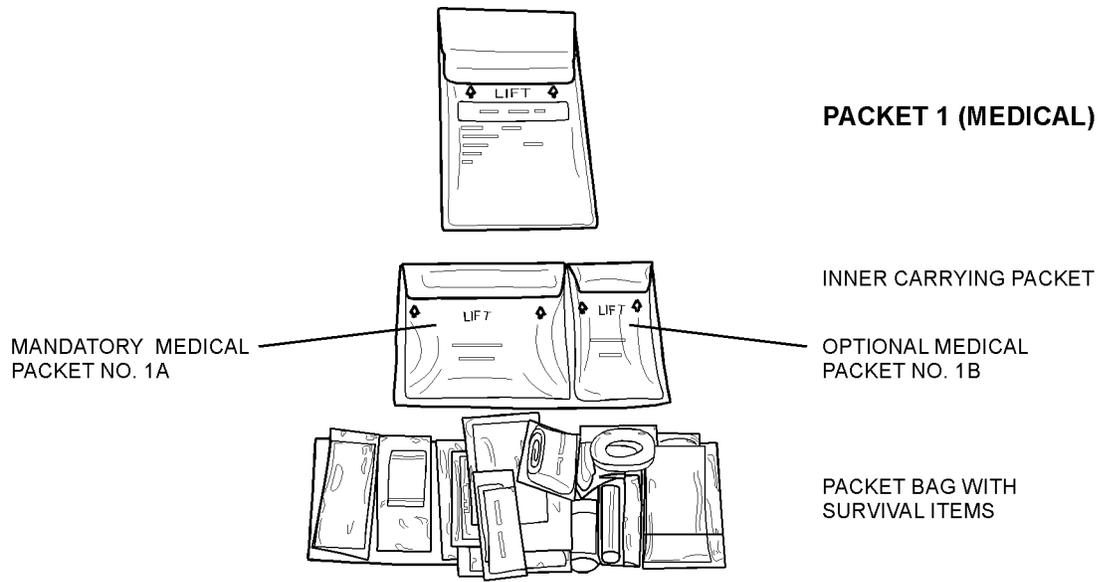


Figure 9-20. Individual Aircrewmember's Survival Kit, SRU-31/P (New Configuration)

009020

9-146. APPLICATION.

9-147. The SRU-31/P with its individual packets is intended for use by injured or downed personnel in emergency situations. With the individual items, aircraft personnel may sustain life and signal for rescue. For SRU-31/P application, refer to NAVAIR 13-1-6.7-1 or NAVAIR 13-1-6.3 Series manuals.

9-148. MODIFICATION.

9-149. There are no current directives affecting the Individual Aircrewmember's Survival Kit (SRU-31/P).

9-150. MAINTENANCE.

9-151. Maintenance shall be performed by organizational or intermediate level maintenance. Inspect the SRU-31/P in accordance with paragraph 9-152. Repair SRU-31/P in accordance with paragraph 9-153. Specific repairs and fabrications are listed in table P-3.

NOTE

Failure of the SRU-31/P kit during place in service inspection renders the item non-RFI and shall be reported in accordance with OP-NAVINST 4790.2 Series. Record all maintenance actions in accordance with OP-NAVINST 4790.2 Series.

9-152. SPECIAL INSPECTION. The contents of the SRU-31/P Survival Kit shall be inspected upon issue and every 90 days thereafter or at intervals to coincide with inspection schedule of the assembly in which it is installed. Inspect the SRU-31/P as follows:

1. Inspect outer and inner carrying packets and packet bags for rips, tears, contamination, security of velcro tape.



Fire Starter (P/N SP-102F) is a suspected source of spontaneous ignition through oxidation. The match should remain in its original sealed container (foil-wrapped) until ready for use. Do not stow after removal from package. Remove opened fire starter from service and discard in a fireproof container.

2. Inspect each component for security of plastic outer bag, contamination, deterioration and leakage.

3. Inspect date on water purification tablets for expiration.

a. Water Purification Tablets, (Iodine). Expiration is 3 years from date of manufacturer, if no date of mfg is available, expiration shall be 3 years from date placed in service, or 1 year from the date the bottle was opened. Instructions for use are located on bottle. Replace as necessary.

b. Water Purification Tablets, (Chlor-Floc), may be used as an alternate to the iodine tablets. They are packaged in individual strips of ten and can be folded for compact stowage. Expiration date is 3 years from date of manufacturer, which is located on either the outside of original container or on the individual strips. Usage instructions shall be duplicated, folded and sealed with the tablets in a plastic bag before attachment to equipment. Inspect packaging for exposed or crushed tablets, replace as necessary.

NOTE

Water purification tablets reaching overage during a repack cycle may remain in service until the next inspection cycle of the equipment in which it is installed.

Water purification tablets will deteriorate rapidly when exposed to air. Perform only a visual inspection for security of packaging.

4. Arrange items on packing bag as compactly as possible using the velcro adhesive discs. Fold and secure velcro on packet bag and place it in the corresponding inner carrying packet and place inner carrying packet in corresponding outer packet. Secure all velcro closures and attach SRU-31/P to survival equipment in accordance with applicable manual.

9-153. REPAIR. Repair the SRU-31/P as follows:

NOTE

All stitches shall be type 301 lockstitch 7 to 10 stitches per inch. Backstitch a minimum of 3/4 inch. Unlimited repairs are authorized on packets until they are no longer repairable or serviceable.

1. Repair loose or missing hook and pile tape and broken stitches.

2. Stitching of all heat sealed seams on packets is authorized. Stitch a minimum of 1/4 inch from edges.

NAVAIR 13-1-6.5

NOTE

The outer and inner carrying packets and packet bags cannot be purchased individually. A complete packet 1 (medical) or packet 2 (general) must be ordered.

3. Replace damage, contaminated and expired items as necessary.

4. Replace ripped, torn, or contaminated plastic bags on individual items as necessary.

9-154. ADDITION OF PROTECTIVE TUBE ON SUNSCREEN OINTMENT/INSECT REPELLENT.

To add protective tubes on sunscreen ointment/insect repellent, proceed as follows:

NOTE

The use of the aluminum tubing is no longer required if using the plastic squeeze tubes or 0.3 oz packets. Aluminum tubing is still required for those SRU-31/P kits that may still

have the older style (soft tube) sunscreen/insect repellent installed.

Materials Required		
Quantity	Description	Reference Number
4 1/2 inches	Aluminum Tubing 2 1/2 x 0.065-Inch	WW-T-700/6 NIIN 00-278-7913
	or	
4 1/2 inches	Aluminum Tubing 1 1/8 x 0.065-Inch	WW-T-700/3 NIIN 00-279-0894

1. Cut one 4 1/2 inch of aluminum tubing.

2. Insert sunscreen ointment/insect repellent tube into 4 1/2-inch length of tubing.

3. Place two tabs of hook fastener tape (obtained from optional packet 1A or 1B) onto aluminum tubing to secure tube to medical packet bag.

Table 9-3. SRU-31/P Repairs and Fabrications

Description of Repairs or Fabrications	Application	Paragraph
Addition of Protective Tube on Sunscreen Ointment/Insect Repellent	All SRU-31/P Kits	9-154

Section 9-18. Individual Aircrewmember's Survival Kit (SRU-31A/P)

9-155. DESCRIPTION.

9-156. Individual Aircrewmember's Survival Kit SRU-31A/P (figure 9-21 and 9-22) contains selected survival items necessary to enhance the survival of downed aircrew personnel. The selection of the SRU-31A/P Individual Aircrewmember's Survival Kit will be at the discretion of the Type Commander depending on mission requirements.

NOTE

Contents of the SRU-31A/P shall be the responsibility of the Organizational and/or Intermediate level maintenance activities.

Dated medical items are no longer required to be part of the Individual Survival Kits.

Iodine shall be removed from all Individual Survival Kits (SRU-31A/P) before placing in service or at the next inspection cycle of the equipment in which the Individual Survival Kit is installed.

Aircrewmembers may obtain medical items through their command Flight Surgeon or Corpsman. Addition of medical items shall be considered optional and will be installed into survival vests in the same manner as other optional items in accordance with NAVAIR 13-1-6.7-2. Replacements for dated medical items are the responsibility of the Aircrewmember or Aviation medical representative.

Components of the SRU-31A/P, which are not available through supply, may be obtained through open purchase.

9-157. CONFIGURATION.

9-158. Individual Aircrewmember's Survival Kit SRU-31A/P shall be locally manufactured. Refer to paragraph 9-169 for manufacturing of SRU-31A/P pouch. Refer to paragraph 9-159 for list of required items. Items shall be packed as compactly as possible.

NOTE

The use of the SRU-31/P medical or general pouch is an optional means for packaging the items. Refer to paragraph 9-168 for details regarding.

9-159. The basic SRU-31A/P shall contain the following items.

NOTE

Soap, tourniquet, water purification tablets (chlorine strip tablets), adhesive tape, sterile pad and the 0.3 oz and 2 oz Sunsect shall be sealed in a re-closeable plastic bag (NIIN 00-837-7753) 4 x 4 inch or equivalent. Bags may be cut and heat-sealed for smaller items.

1. Soap, Toilet (NIIN-00-551-0375 or local purchase), 3/4 oz wrapped. Inspect for contamination and deterioration. Place soap in a re-closeable plastic bag. Replace as necessary.

2. Sunsect (NIIN 01-452-9582) 0.3 oz packet is authorized for use. Inspect for leakage and replace as necessary. There is no expiration date for insect repellent and sunscreen.

NOTE

Rate of replacement is four 0.3 oz packets of Sunsect to either the 2 oz plastic squeeze tube or the two 1 oz plastic bottles of insect repellent and sunscreen.

3. Water Purification Tablets. Water purification tablets shall be added to the SRU-31A/P kit at time of place in service or at the next inspection cycle. The use of either Iodine or Chlorine tablets is authorized. Refer to paragraph 9-152, steps 3 and table 9-2 for inspection and ordering information.

4. Adhesive Tape, Surgical (NIIN 01-221-1495 or local purchase) (1/2 inch x 10 yards). Inspect for contami-

nation and deterioration. Place adhesive tape in a re-closeable plastic bag. Replace as necessary.

5. Sterile Pad, non-adherent, 3 each, (NIIN 00-111-0708 or local purchase) (3 x 4 inch). Inspect for contamination and deterioration. Place sterile pad in a re-closeable plastic bag. Replace as necessary.

WARNING

The tourniquet is intended only for emergency use when the injured person is alone and there is life-threatening arterial bleeding. Unnecessary use of a tourniquet could result in more serious complications of injury.

6. Tourniquet (NIIN 00-383-0565). The 1 1/2 x 42-inch tourniquet is configured so it can be applied with one hand to restrict flow of blood to an injured area. The tourniquet is prepared for one hand application. Inspect for contamination and deterioration. Replace as necessary. Prior to installing in the SRU-31A/P container, perform the following:

- a. Remove tourniquet from package and unfold.
- b. Lay tourniquet on flat surface with buckle facing you.
- c. Carefully remove instruction label by cutting attaching threads.
- d. Sew label on tourniquet with short and long sides parallel to edges, and within 1 inch, of free end of tourniquet.
- e. Insert free end of tourniquet through buckle going from bottom to top.
- f. Refold tourniquet along original fold lines.
- g. Place tourniquet in a re-closeable plastic bag.

7. Pocket Knife (NIIN 00-162-2205). The pocket knife is a stainless steel general purpose survival tool. It has a blade, can opener, bottle opener, screw driver, and leather punch.

8. Fire Starter Aviation Survival Spark-lite (NIIN 01-233-0061) or Fire Starting Tool Magnesium (NIIN 01-160-5618) can be used. Both fire starters come with instructions for use. Inspect Fire Starter for corrosion, broken casing, contamination, deterioration and legibility of instructions. Replace as necessary.

NAVAIR 13-1-6.5

9. Pocket Chain Saw (Optional). There are two styles of stainless steel pocket chain saws. Each measures approximately 16 to 24 inches in length. The stainless steel 3-strand style (P/N 550046) is pre-packaged and can be folded for a more compact fit. Stainless steel pocket chain saw (NIIN 00-296-2529) comes wrapped in cardboard and plastic. Pocket chain saw P/N 550046 can be purchased from the following source:

Exploration Products
3924 Irongate Rd Suite C
Bellingham, WA 98226
800-448-7312
P/N550046

9-160. APPLICATION.

9-161. The SRU-31A/P survival kit is intended for use by injured or downed personnel in emergency situations. With the individual items, aircraft personnel may sustain life.

9-162. MODIFICATION.

9-163. There are no current directives affecting the SRU-31A/P survival kit.

9-164. MAINTENANCE.

9-165. Maintenance or repair of the SRU-31A/P survival kit shall be performed by Organizational Level or above. Maintenance consists of inspection of kit, and repair of torn hook and pile fastener tapes on kit. Repair and fabrication instructions are listed in [table 9-4](#).

9-166. INSPECTION. The contents of the SRU-31A/P Survival Kit shall be inspected upon issue and every 90 days thereafter or at an interval to coincide with inspection schedule of the assembly in which it is stowed. Inspect contents of SRU-31A/P for general condition and replace as necessary, unless otherwise indicated.

9-167. REPAIR OF TORN HOOK AND PILE FASTENER TAPES ON SRU-31A/P KIT. Repair torn, ripped or broken stitches on equipment container by stitching in place, using nylon thread (V-T-295, Type II, Class A, Size E). Torn, ripped or contaminated material is cause for replacement of equipment container.

9-168. RE-DESIGNATION OF SRU-31/P POUCH. To re-designate the SRU-31/P pouch to the SRU-31A/P, proceed as follows:

Materials Required		
Quantity	Description	Reference Number
As Required	Ink Pen, Black Indelible	N/A
1. On the interior pouch, mark out the words, Mandatory Medical or General and Optional Medical or General on both pockets, and re-mark it as SRU-31A/P.		

2. On the exterior pouch, mark out the lines of information located below the words "Survival Kit, Individual Airman's" on either the Medical or General pouch and re-mark it with "SRU-31A/P" and "Date of Assembly".

9-169. FABRICATION OF SRU-31A/P EQUIPMENT CONTAINER. ([Figure 9-21](#) and [9-22](#)). To fabricate the equipment container for the SRU-31A/P Individual Survival Kit, proceed as follows:

Materials Required		
Quantity	Description	Reference Number
15 1/2 x 17 1/2 inches	Cloth, Vinyl Coated Nylon, Type II, Green	MIL-C-43006 NIIN 00-351-8346
16 1/2 inches	Pile, Tape 4 Inch Width Green or Pile, Tape 2 Inch Width Green	MIL-F-21840 NIIN 01-187-7774
5 1/2 inches	Pile Tape, 1 Inch Width, Green	MIL-F-21840 NIIN 00-106-5974
5 1/2 inches	Hook Tape, 1 Inch Width, Green	MIL-F-21840 NIIN 00-106-5973
5 1/2 inches	Hook Tape, 2 Inch Width, Green	MIL-F-21840 NIIN 00-450-9837
12 inches	Tape, Textile Nylon, Type III, Green	MIL-T-5038 NIIN 00-753-6144
1	Grommet, Size 00	MS20230B20 NIIN 00-291-0302
As Required	Thread, Nylon, Size E, Green	V-T-295 NIIN 00-204-3884
As Required	Hook Tape, 1 Inch, Self-adhesive	190959 NIIN 01-445-8812 or Equivalent

Table 9-4. SRU-31A/P Repairs and Fabrications

Description of Repairs or Fabrications	Application	Paragraph
Repair of Torn Hook and Pile Fastener Tapes on SRU-31A/P Kit	All SRU-31A/P Kits	9-167
Re-designation of SRU-31/P Pouch	All applicable SRU-31/P Pouches	9-168
Fabrication of SRU-31A/P equipment container	As required	9-169

NOTE

All stitches shall be Type 301 Lockstitch 7 to 10 stitches per inch. Backstitch a minimum of 3/4 inch.

1. Measure and cut one piece of coated nylon fabric, 15 1/2 x 17 1/2 inches. Place cloth on table with the 17 1/2 inch sides at the top and bottom.

2. From the bottom of fabric, measure and mark 6 1/4 inches up from each corner. Using a straight edge, connect marks making a horizontal line. On the horizontal line measure and mark 5 1/2 inches inboard from each side.

3. From the top corners of fabric, measure and mark 5 1/2 inches inboard. Connect each set of 5 1/2 inch marks, making two parallel vertical lines perpendicular to the horizontal line.

4. Cut fabric on these lines, forming an upside down "T" shaped piece of material (figure 9-21). Trim each outside 90 degree corner 3/8 inch to form an angled corner. Cut a 3/8-inch slit at the two inside 90-degree angles. Turn all edges inboard 3/8 inches and sew in place using 1 row of stitches 1/4 inch from folded edge.

5 INSIDE OF CONTAINER (Figure 9-20)

a. Position fabric with folded hems facing up and the 16 3/4 inch side at bottom forming an upside-down "T".

b. Measure and mark the center position of both the left side 5 1/2 edge and the top 5 1/2 inch edge. Cut two pieces of Type III nylon tape 6 inches long. Sear ends. Fold tape in half forming a "V" loop. Place each loop on the marked centers with ends 1/2 inch in from folded edge. Sew tape in place with three rows of stitching.

c. Position fabric as stated in step 5a. Cut a 16 1/2-inch piece of 4-inch wide pile tape. Lay pile tape on the bottom portion of the upside-down "T" centering it from all edges and sew in place 1/8 inch from pile edges.

NOTE

Two pieces of 2-inch x 16 1/2-inch pile tapes may be used in lieu of the 4-inch pile tape. Sew the two pieces together to form a 4-inch x 16 1/2 inch single piece. Dimensions may be slightly smaller after sewing together.

d. Cut one 5 1/2 inch piece of 1 inch pile tape. Position pile tape along the top 5 1/2 inch folded edge of upside-down "T" and sew in place 1/8 inch from pile edges.

6 OUTSIDE OF CONTAINER (Figure 9-22)

a. Position fabric so hem and pile tape are facing down and the 16 3/4 inch side is at the bottom forming an upside-down "T".

b. Cut one 5 1/2 x 1 inch piece of hook tape. Position hook tape along the left 5 1/2 inch folded edge and sew in place 1/8 inch from hook edge.

c. Cut one 5 1/2 x 2 inch piece of hook tape. Position the 2-inch piece of hook tape horizontally and center it along the bottom edge of the 16 3/4 inch side. Sew hook tape in place 1/8 inch in from hook edge.

d. Measure and mark a point centered and 1/2 inch up from bottom edge of the 2-inch piece of hook tape. Punch cut a 1/8-inch hole and set grommet for tie in point.

e. Measure down approximately 4 inches from the top 5 1/2 inch side. Stencil or mark with indelible black ink the following information. Let ink dry completely before stowing items.

SRU-31A/P
Date of mfg:
Water Purification Exp Date:

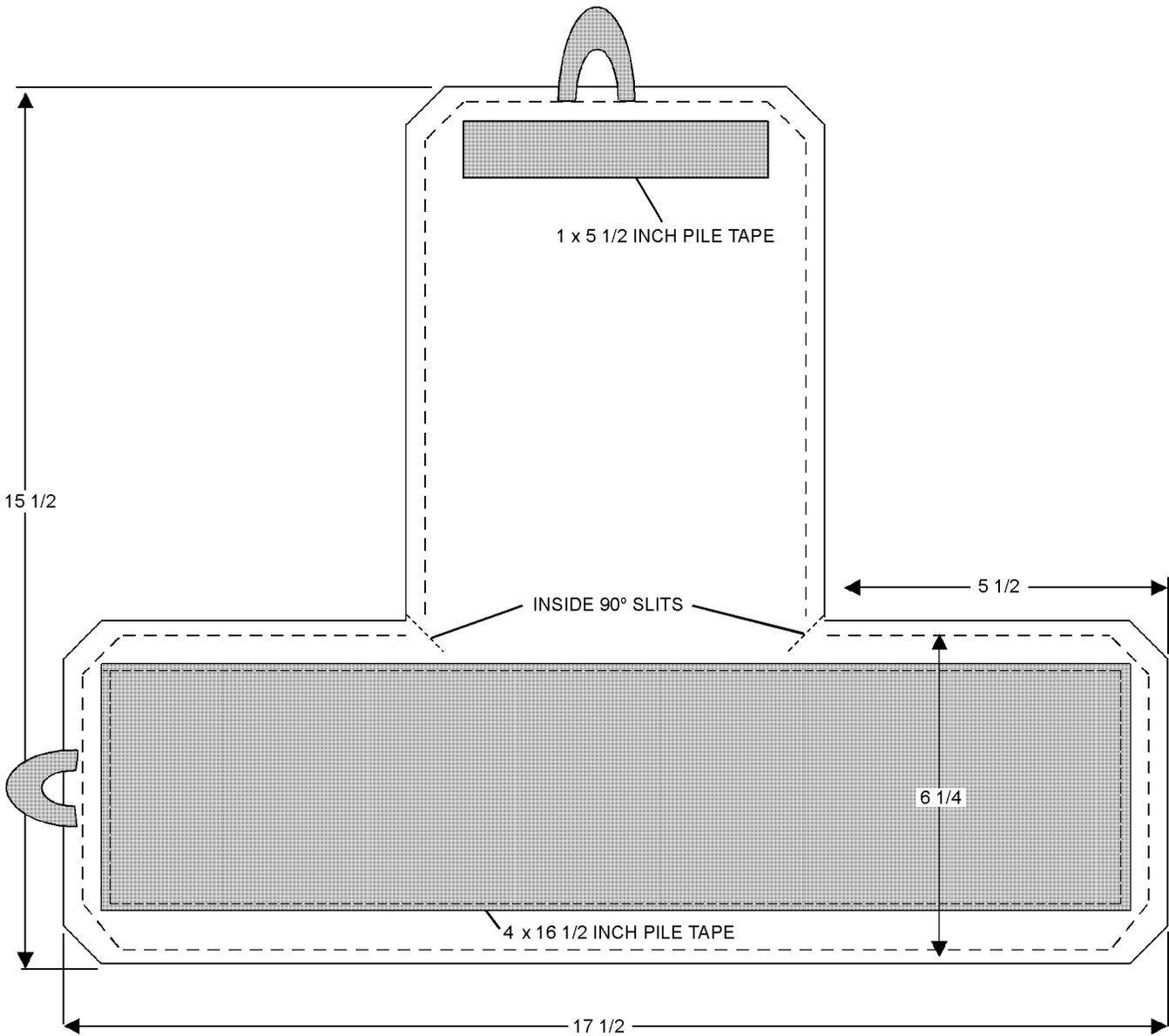


Figure 9-21. Fabrication of SRU-31A/P Equipment Container (Inside of Container)

009021

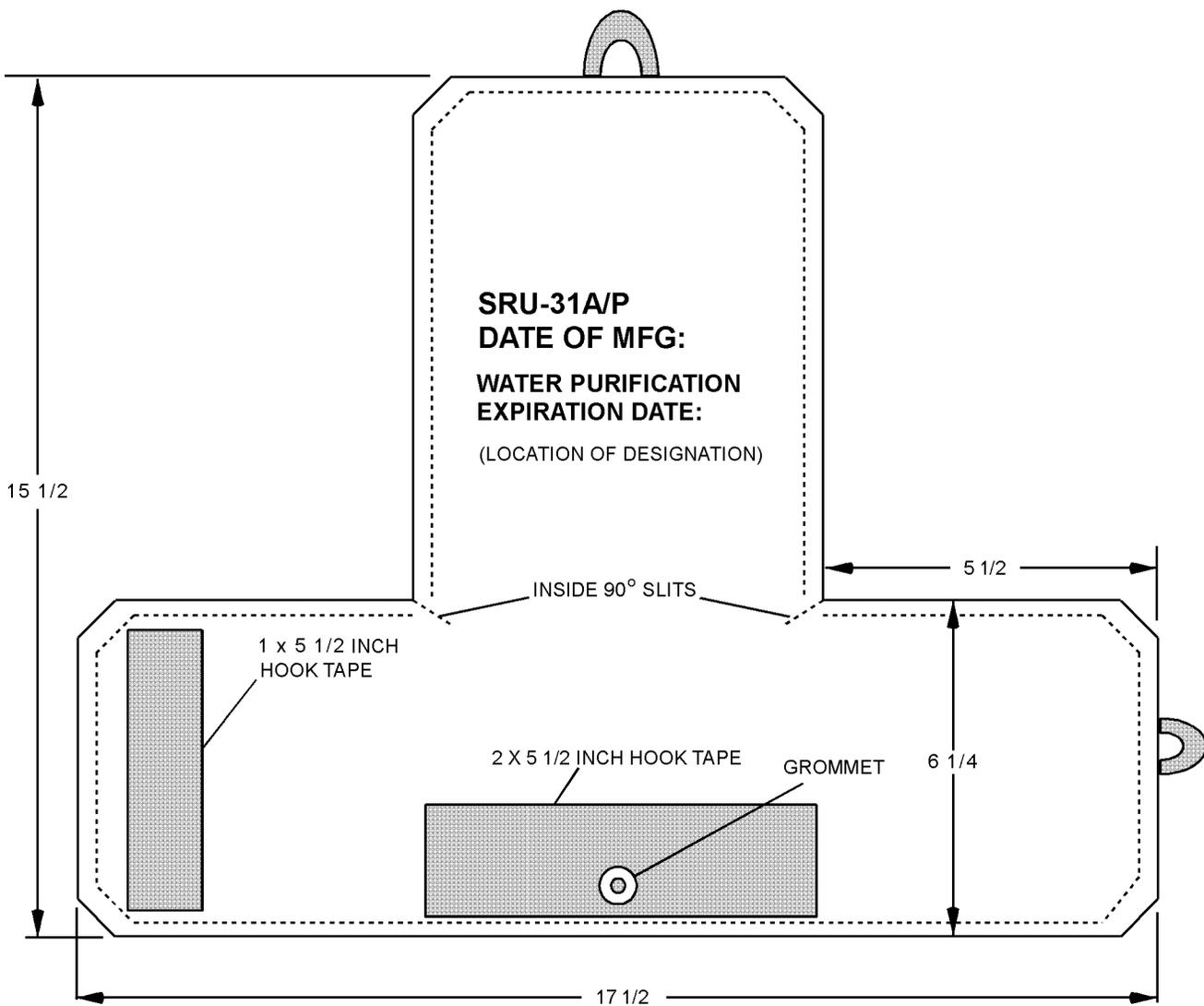


Figure 9-22. Fabrication of SRU-31A/P Equipment Container (Outside of Container)

009022

NAVAIR 13-1-6.5

9-170. PACKING OF SURVIVAL ITEMS.

1. Ensure survival items have been inspected and are packaged in accordance with paragraph 9-159.

2. Using a 6 x 6 inch re-closeable plastic bag (NIIN 00-837-7754), arrange survival items in plastic bag, squeeze bag to remove majority of air and close bag.

3. Cut two pieces of 1-inch self-adhesive hook tape approximately 3 inches in length or one 3-inch piece of 2-inch self-adhesive hook tape. Attach hook tape to one

side of the 6 x 6 plastic bag and secure to the center of the 4-inch pile tape on the container.

4. Cut a 48-inch piece of Type I nylon cord (MIL-C-5040), sear ends and tie an overhand knot at one end and secure to grommet with a bowline knot.

5. Fold the right flap of the container over survival items, fold left flap over right flap and secure velcro. Fold top down and over, secure velcro.

6. Attach SRU-31A/P to survival equipment in accordance with applicable manual.

Section 9-19. Pocket Knife

9-171. DESCRIPTION.

9-172. The Pocket Knife is a general purpose survival tool which has many uses.

9-173. CONFIGURATION.

9-174. The Pocket Knife (MIL-K-818C, NIIN 00-162-2205) is made of stainless steel and consists of one blade, can opener, bottle opener, screwdriver, and leather punch blade (figure 9-23).

9-175. APPLICATION.

9-176. The Pocket Knife is intended to aid aircraft personnel in cutting wood or material and opening cans and bottles to prepare food. It is also used as a screwdriver, an awl, and as a weapon, if necessary.

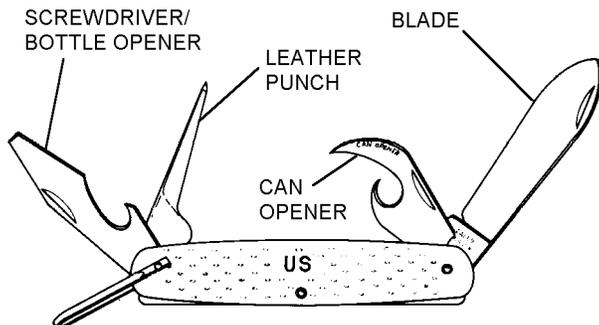


Figure 9-23. Pocket Knife

9-177. MAINTENANCE.

9-178. Maintenance of the Pocket Knife is limited to inspection and sharpening.

WARNING

Use caution when inspecting Pocket Knife to avoid injury and cuts.

9-179. INSPECTION. The Pocket Knife shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which the Pocket Knife is stored.

1. Inspect the Pocket Knife for damage to blades.

2. Inspect blades for sharpness. Sharpen in accordance with paragraph 9-180, if necessary.

9-180. SHARPENING. Sharpen with a whetstone if necessary. Refer to paragraph 9-224.

Section 9-20. Hook Blade Knife

9-181. DESCRIPTION.

9-182. The Hook Blade Knife is used to cut entangled parachute suspension lines. The knife shall be stowed in a protective pocket when not in use.

9-183. CONFIGURATION.

9-184. The Hook Blade Knife (823AS101-1, CAGE 30003) is 6 inches long with the Hook Blade at one end and a plastic grip at the other end (figure 9-24).

9-185. APPLICATION.

9-186. The Hook Blade Knife is intended for cutting parachute suspension lines which may be entangled in trees or other obstacles.

9-187. MAINTENANCE.

9-188. Maintenance to the Hook Blade Knife is limited to inspection and sharpening.

9-189. **INSPECTION.** The Hook Blade Knife shall be inspected upon issue and every 90 days thereafter, or at

intervals to coincide with the inspection schedule of the kit or assembly in which the Hook Blade Knife is stored. To inspect the Hook Blade Knife, proceed as follows:

1. (Original Issue) Remove plastic shipping cover and discard. Inspect blade for sharpness by making two cuts through Type III suspension line. Cuts shall be made by hooking a loop of the suspension line on the blade near the handle and sharply pulling against the line with the blade edge. Cuts shall be clean with a minimum of fraying. Hook Blade Knife failing this test shall be sharpened in accordance with paragraph 9-190.

2. (Routine Inspection Interval) Inspect knife blade for damage and corrosion. Inspect handle and pocket for obvious defects.

9-190. **SHARPENING.** Sharpen Hook Blade Knife blade with a whetstone to a razor edge (if necessary, refer to paragraph 9-224).

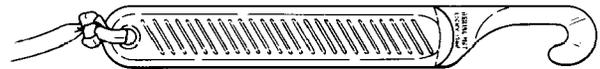


Figure 9-24. Hook Blade Knife

009024

Section 9-21. Double Bladed Shroud Line Cutter

9-191. DESCRIPTION.

9-192. The Double Bladed Shroud Line Cutter (figure 9-25) is used to cut entangled parachute suspension lines. The line

cutter is authorized as an alternative to the hook blade knife. The line cutter requires modification before stowage. It shall be stowed in the same pocket as the hook blade knife.



Figure 9-25. Double Bladed Shroud Line Cutter

009025

NAVAIR 13-1-6.5

NOTE

The double bladed shroud line cutter cannot be used with the HBU-11/P, HBU-23/P or the TRISAR harness assembly.

9-193. CONFIGURATION.

9-194. The double bladed shroud line cutter is approximately 8 inches long as supplied by the manufacturer. It is constructed of a durable yellow plastic and has a hook at one end with two stainless steel blade inserts. It is available from the following sources:

NOTE

SOASI message has authorized the use of a yellow 6 1/2 inch long double bladed hook knife by PARA-GEAR Equipment Co., P/N K15550. Inspection in accordance with paragraph 9-201. This knife does not require modification.

PARA-GEAR Equipment Co.
3839 W. Oakton St.
Skokie, IL 60076-3438
(800) 323-0437

P/N K16909 (Jack The Ripper-Yellow)
P/N K15550 (6 1/2 inch, Yellow/Orange)
P/N K16912 (replacement blades)

Exploration Products
P.O. Box 32090
Bellingham, WA 98228-4090
(800) 448-7312

P/N 5510302 (Raft Knife, Yellow)
P/N 5510302-B (replacement blades)

Square One Parachute Sales and Service
425 W. Rider St., Suite B-7
Perris, CA 92571
(800) 877-7191
P/N 2023 (Yellow)

9-195. APPLICATION.

9-196. The double bladed shroud line cutter is intended for cutting parachute suspension lines that may be entangled in trees or other obstacles.

9-197. MODIFICATION.

9-198. Double bladed shroud line cutter shall be modified by shortening the handle and by the addition of lanyard hole. Shroud line cutter must be modified to fit into existing hook blade knife pockets. Overall finished length shall not exceed 6 7/8 inches.

Materials Required

Quantity	Description	Reference Number
1	Drill	—
1	Hacksaw	—
1	1/16-inch Drill Bit	—
1	11/64-inch Drill Bit	—
1	1/4-inch Drill Bit	—
1	File or Sandpaper	—

WARNING

Knife blades are sharp. Use care when handling and storing.

1. Remove screw at bottom of handle and remove spare blades. Retain blades for future use. Replace bottom screw.

2. Mark handle 1 1/4 inches from bottom of handle.

3. Using a hacksaw or appropriate cutting device, cut off the 1 1/4 inches from bottom of handle. Smooth cut edges with sandpaper or file. Remove and retain the small phillips screw from the removed end for future use.

4. Mark a point 3/4 inches from cut bottom of handle and 3/8 inch in from blade side of knife. Drill completely through handle using 1/16-inch drill bit. Countersink the 1/16-inch hole with an 11/64-inch drill bit. Countersink should be on same side as existing screw heads. Reinstall the small phillips screw.

5. Lanyard Hole. Mark a point 3/8 inch from cut bottom of handle and centered in middle of handle. Drill completely through using 1/4-inch drill bit. Smooth edges with sandpaper or file.

9-199. MAINTENANCE.

9-200. Maintenance shall consist of inspection and replacement of blades and shall be performed at organizational level or above.

9-201. SPECIAL INSPECTION. The double bladed shroud line cutter shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which it is installed. To inspect the double bladed shroud line cutter, proceed as follows:

NOTE

Report any discrepancies in accordance with OPNAVINST 4790.2 series for information purposes only.

1. (Place-In-Service Inspection only) Inspect blades for sharpness by making two cuts through Type III suspension line. Cuts shall be made by hooking a loop of the suspension line on the blade near the handle and sharply pulling against the line with the blade edge. Cuts shall be clean with a minimum of fraying. Double bladed shroud line cutter failing this test shall be returned to original supplier for replacement.

2. Inspect line cutter handle and blades for damage and corrosion. Replace blades as necessary in accordance with paragraph 9-202.

WARNING

Knife blades are sharp. Use care when handling and storing.

9-202. BLADE REPLACEMENT. Remove the 5 Phillips head screws holding together the two halves of the double bladed shroud line cutter. Carefully remove damaged/corroded blades and replace with new blades. Replace the 5 Phillips head screws.

Section 9-22. Hook and Snap Blade Knife Type MC-1

WARNING

This knife may be issued only to Armed Forces and is intended solely for use in emergency survival conditions. Unauthorized possession of this knife may constitute a serious criminal offense against Federal, State, and Local laws.

parachute suspension lines. The snap blade knife may be used to cut wood or material, or as a weapon. The knife is authorized for use in the PCU Series Torso Harness.

9-203. DESCRIPTION.

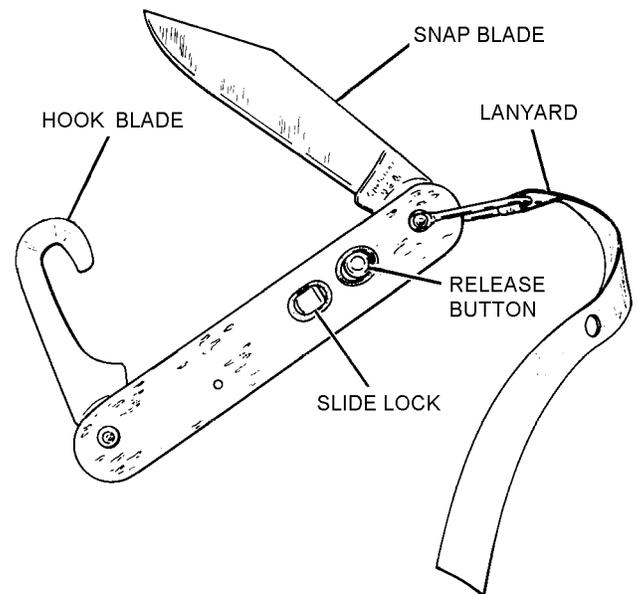
9-204. The Hook and Snap Blade Knife Type MC-1 is used in emergency survival conditions. This includes its application as a hook blade as described in paragraph 9-186.

9-209. MAINTENANCE.

9-210. Maintenance of the Hook and Snap Blade Knife Type MC-1 is limited to inspection and sharpening.

9-205. CONFIGURATION.

9-206. The Hook and Snap Blade Knife Type MC-1 (CAM-2534) consists of a hook blade on one end and a snap blade on the other end. The snap blade is actuated by a release button and held in place with a slide lock (figure 9-26). The knife is available from the following source:



One Stop Knife Shop
 340 Production Ct
 Louisville, KY 40299
 (866) 289-1757
 www.onestopknifeshop.com

9-207. APPLICATION.

9-208. The Hook and Snap Blade Knife Type MC-1 is intended for use as a hook blade for quick cutting of

009026
Figure 9-26. Hook and Snap Blade Knife, Type MC-1

NAVAIR 13-1-6.5

9-211. INSPECTION. The Hook and Snap Blade Knife shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which the Hook and Snap Blade Knife is stored. To inspect the Hook and Snap Blade Knife, proceed as follows:

WARNING

Use extreme care when inspecting knife to avoid injury and cuts. For service use, to avoid accidental opening of knife, wrap knife with a minimum of two turns 3/4-inch wide cloth tape (Ordnance Tape, PPP-T-60). Fold tape at end to form 1-inch tab for easy removal.

1. Visually inspect knife body and blades for damage and corrosion.
2. Upon opening blade, inspect that blade remains in open position.
3. Ensure that slide lock is held in both open and safe position.

4. With the slide lock in open position, operate snap blade. Snap blade shall remain in open position.

5. With the snap blade closed and the slide lock in the safety position, snap blade shall remain closed when release button is pressed or moved.

6. When snap blade is released and slide lock is in safety position, snap blade shall remain open when release button is pressed or moved.

7. Visually inspect webbing lanyard for fraying and security of attachment. If required, replace lanyard IAW ACC 380.

8. Inspect hook blade for sharpness by making two cuts through Type III suspension line. Cuts shall be made by hooking loop of line on blade near handle and giving a sharp pull against line with blade edge. Cuts shall be clean with a minimum of fraying. Hook blade failing test shall be sharpened in accordance with paragraph 9-212.

9. Inspect snap blade for sharpness.

9-212. SHARPENING. Sharpen blades with a whetstone in accordance with paragraph 9-224.

Section 9-23. Survival Knife and Sheath

9-213. DESCRIPTION.

9-214. The Survival Knife is a survival tool with various uses and should be kept clean, sharp, and stowed in its sheath when not in use.

9-215. CONFIGURATION.

9-216. The Survival Knife (MIL-K-8662) is a hunting knife with a 5-inch steel blade. One side of the blade is honed while the other side is serrated. The grip is made of leather washers 1/8-inch thick, layered in a row up to the guard. At the end of the grip there is a steel butt. The sheath is constructed of leather with a pocket to carry the sharpening stone. There is a metal tip on the sheath to protect from injury (figure 9-27).

9-217. APPLICATION.

9-218. The Survival Knife is the most valuable general purpose survival tool. It can be used for cutting wood and material, opening cans, and as a hunting knife or weapon. At all times the survival knife should be kept

clean, sharpened, and returned to the sheath when not in use.

9-219. MODIFICATION.

9-220. There are no current directives affecting the Survival Knife and Sheath. Repair or other actions required shall be performed by Intermediate Level or above.

9-221. MAINTENANCE.

9-222. Maintenance of the Survival Knife and Sheath shall be performed by Organizational Level or above unless otherwise specified. Maintenance of the survival knife and sheath is limited to inspection and sharpening.

9-223. INSPECTION. The Survival Knife and Sheath shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which the Survival Knife and Sheath are stored. To inspect the Survival Knife and Sheath, proceed as follows:

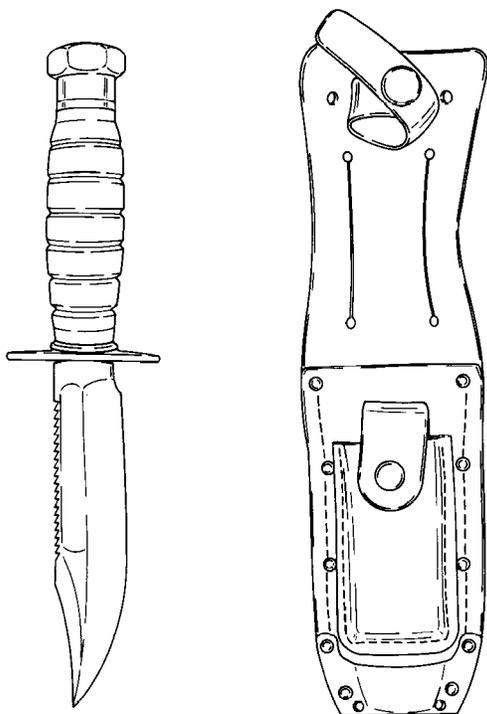


Figure 9-27. Survival Knife and Sheath

009027

1. Visually inspect knife blade for damage and corrosion.
2. Visually inspect sheath for cuts and loose or broken stitching.

9-224. SHARPENING. To sharpen the Survival Knife blade, proceed as follows:

Section 9-24. Leatherman Wave Survival Tool

9-225. DESCRIPTION.

9-226. The Leatherman Wave Survival Tool features a multitude of uses. The design offers two locking blades with one handed access and handle comfort. When not in use, the tool shall be kept in its sheath. Refer to NAVAIR 13-1-6.7-1 for authorized configuration applications and NAVAIR 13-1-6.7-4 for stowage procedures.

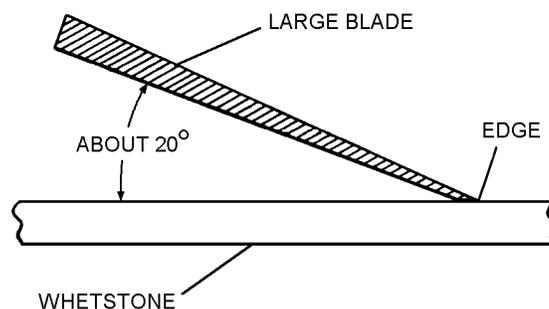
9-227. CONFIGURATION.

9-228. The Leatherman Wave Survival Tool (NIIN 01-456-0578) is a multi-purpose tool and comes with a leather sheath. It is manufactured from high-grade 100% stainless steel and is corrosion resistant. It is 4 inches in length when closed, 6 1/4 inches when open,

Materials Required

Quantity	Description	Reference Number
1	Whetstone, Type I	SS-S-736
As Required	Lubricating Oil, General Purpose	VV-L-800 NIIN 00-273-2389
As Required	Cloth, Cleaning	MIL-C-85043

1. Prepare whetstone by placing a few drops of oil on it.
2. Hold the blade so that the back of the blade is about 20° up from the surface of the stone.



09224002

Step 2 - Para 9-224

3. Use a circular motion and press lightly on the blade.
4. Turn the blade over and repeat step 3.
5. Wipe blade with linen cloth.

and weighs 8 oz. It features needle nose and regular pliers, wire cutters, hard-wire cutters, clip-point knife, diamond-coated file, wood saw, scissors, extra small, small, medium, large screwdrivers and phillips screwdriver, can/bottle opener, wire stripper and lanyard attachment.

9-229. APPLICATION.

9-230. The Survival Tool can be used for repairing, cutting, opening, sawing, hunting and as a weapon. The Survival Tool should be kept clean, blades sharpened, and kept in its sheath when not in use.

9-231. MODIFICATION.

9-232. There are no directives affecting the Survival Tool and sheath.

9-233. MAINTENANCE.

9-234. Maintenance shall be performed at Organizational Level or above. Maintenance is limited to an inspection, oiling and sharpening.

9-235. INSPECTION. The Survival Tool shall be inspected upon issue and every 90 days thereafter or at intervals to coincide with the inspection schedule of the equipment in which the survival tool is stored. To inspect the Survival Tool proceed as follows:

1. Inspect knife blades for damage. If necessary, sharpen in accordance with paragraph 9-224.
2. Visually inspect all individual tools for wear, corrosion and ease of operation at pivoting points.
3. Wipe each tool with cleaning cloth and lightly lubricate each pivoting point.
4. Visually inspect sheath for broken stitches and overall condition.
5. Replace tool and sheath as necessary.

Materials Required

Quantity	Description	Reference Number
As Required	Lubricating Oil, General Purpose	VV-L-800 NIIN 00-273-2389
As Required	Cloth, Cleaning	MIL-C-85043



Blades are sharp. Use caution when inspecting and cleaning.

NOTE

Replacement Leatherman tools and sheaths can be ordered separately by open purchase from the following source:

Leatherman Tool Group, Inc.
P.O. Box 20595
Portland, Oregon 97294-0595
(800) 847-8665
mktg@leatherman.com

Section 9-25. Emergency Signaling Mirror

9-236. DESCRIPTION.

9-237. The Emergency Signaling Mirror is a signaling device used to attract attention of a passing ship or aircraft.

Mirror replacement does not affect mirror contained inside the SRU-31/P individual aircrewmember's survival kit at this time.

9-238. CONFIGURATION.

NOTE

The 3 x 5-inch mirror (USAF41063TYPE B1) shall be used until the supply is expended. The 2 x 3-inch mirror (MIL-M-18371) shall be used thereafter.

9-240. APPLICATION.

9-241. The Emergency Signaling Mirror is intended to reflect sunlight at passing ships, aircraft, or rescue parties. Instructions for using mirrors are printed on the back of the mirror.

9-239. The Emergency Signaling Mirror is either 2 x 3 inches (MIL-M-18371) or 3 x 5 inches (USAF41063 TYPE B1). There is a hole in the corner of the mirror through which a lanyard shall pass for attachment to the individual aircrewmember's survival vest (figure 9-28).

NOTE

Interchangeable use of either the glass 2 x 3 inch (MIL-M-18371) or 3 x 5 inch (USAF41063 TYPE B1) Emergency Signaling Mirror or the acrylic Mark 4 Signaling Mirror (NIIN 00-105-1252) is authorized.

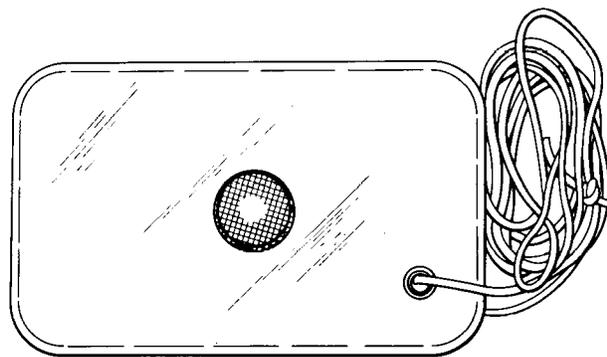


Figure 9-28. Emergency Signaling Mirror

009028

9-242. MAINTENANCE.

9-243. Maintenance of the Emergency Signaling Mirror is limited to inspection.

9-244. INSPECTION. The Emergency Signaling Mirror shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which the signaling mirror is stored. To inspect the Emergency Signaling Mirror, proceed as follows:

1. Ensure mirror is not cracked or broken.
2. Ensure operating instructions are legible.
3. Ensure mirror surface is clean and unmarred.

NOTE

Mirrors failing inspection shall be replaced.

4. Ensure lanyard is not cut, worn, or frayed, and is securely attached to mirror. Replace lanyards as necessary.

Section 9-26. Mark 4 Emergency Signaling Mirror**9-245. DESCRIPTION.**

9-246. The Mark 4 Emergency Signaling Mirror (NIIN 00-105-1252) (figure 9-29) is made of durable acrylic plastic. There is a sighting hole in the center and a hole in one corner for an attached lanyard. The Mark 4 Emergency Signaling Mirror will be used in addition to the mirrors currently in use.

9-247. CONFIGURATION.

9-248. The Mark 4 Emergency Signaling Mirror is available in only one configuration. It measures 2 x 3 inches and weighs 0.75 of an ounce. There is a hole in the corner of the mirror through which a lanyard shall pass for attachment to the individual aircrewmember's survival vest.

9-249. APPLICATION.

9-250 The Mark 4 Emergency Signaling Mirror is intended for use by downed aircrewmembers as an aid to search and rescue operations. Instructions for mirror's use are printed on back of mirror.

NOTE

The plastic material of the mirror, when shaved from its edges, can be used as tinder to help start fire.

9-251. MAINTENANCE.

9-252. Maintenance of the Mark 4 Emergency Signaling Mirror is limited to inspection.

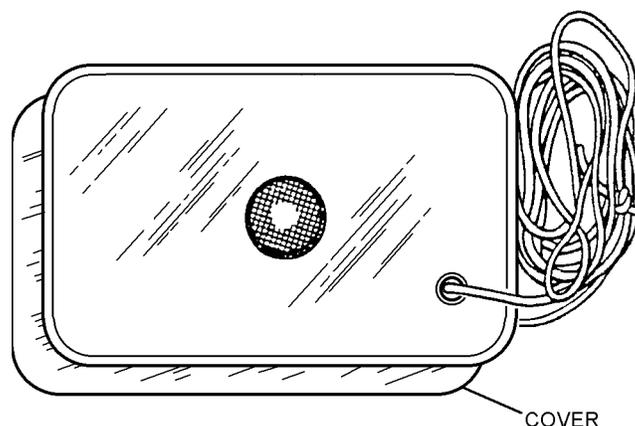
9-253. INSPECTION. The Mark 4 Emergency Signaling Mirror shall be inspected upon issue and every 90 days thereafter or at intervals to coincide with inspection schedule of kit or assembly in which it is stowed. The inspection shall consist of the following:

1. Check mirror for cracks, breaks, and other defects.
2. Ensure instructions on back of mirror are legible.
3. Ensure mirror surface is clean and unmarred.

NOTE

Mirrors failing inspection shall be replaced.

4. Ensure lanyard is not cut, worn, or frayed, and is securely attached to mirror. Replace lanyards as necessary.



009029
Figure 9-29. Mark 4 Emergency Signaling Mirror

Section 9-27. Sunscreen

9-254. DESCRIPTION.

9-255. PreSun 15 Sunscreen (NIIN 01-121-2336) or equivalent 4 oz bottle is used on the bare skin to prevent bad sunburn and drying skin. Sunsect 0.3 oz packets are an authorized substitute for PreSun 15.

NOTE

Rate of replacement is sixteen 0.3 oz Sunsect packets to one 4 oz bottle of PreSun 15. Sunsect does not have an expiration date.

9-256. CONFIGURATION.

9-257. PreSun 15 Sunscreen is a creamy liquid in a plastic, bottle shaped container, wrapped in light clear plastic (figure 9-30). The expiration date is stamped on the container bottom. Sunsect comes in 0.3 oz packets.

9-258. APPLICATION.

9-259. Sunscreen must be applied before exposure to the sun. Instructions are printed on the container.

9-260. MAINTENANCE.

9-261. Maintenance of the sunscreen is limited to a visual inspection.

9-262. INSPECTION. The Sunscreen shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which the sunscreen is stored.

1. Inspect exterior for signs of damage and leaking. When plastic wrap on outside of PreSun 15 is damaged, remove and discard. Seal in a reclosable plastic bag.

2. Inspect expiration date on PreSun 15.

3. Seal Sunsect packets in recloseable plastic bag before storing in liferaft accessory container.

4. Replace sunscreen as necessary.

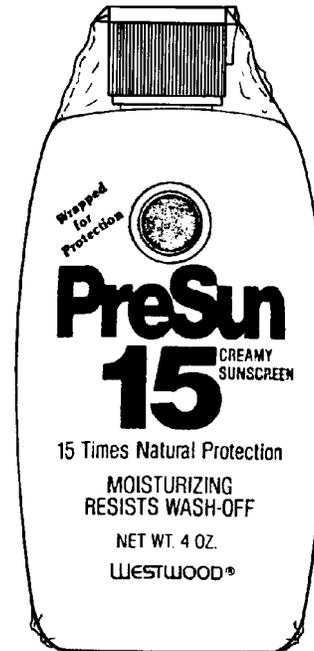


Figure 9-30. PreSun 15 Sunscreen

009030

Section 9-28. Fire Starter

9-263. DESCRIPTION.

9-264. The Fire Starter (NIIN 01-233-0061) (figure 9-31) consists of a friction wheel assembly with flint, and “Tinder-Quick” fire tabs. Those items plus spare flint and “Tinder-Quick” are supplied in a plastic container with a flip top that measures 1 9/16 x 5/8 x 2 1/2 inches.

9-265. APPLICATION.

9-266. Gather tinder (dry wood shavings, paper, grass, leaves, cloth, or bark) and prepare other campfire mate-

rials in the usual manner. Feather the “Tinder-Quick” fire tabs apart before using. Avoid touching or matting the inner fibers as the fluffed fibers ignite faster. Hold friction wheel with the arrow or indentation pointing up, and the index finger on the friction wheel. Spin the friction wheel rapidly over “Tinder-Quick” tabs to ignite with resulting sparks.

9-267. MAINTENANCE.

9-268. Maintenance of Fire Starter is limited to a visual inspection.

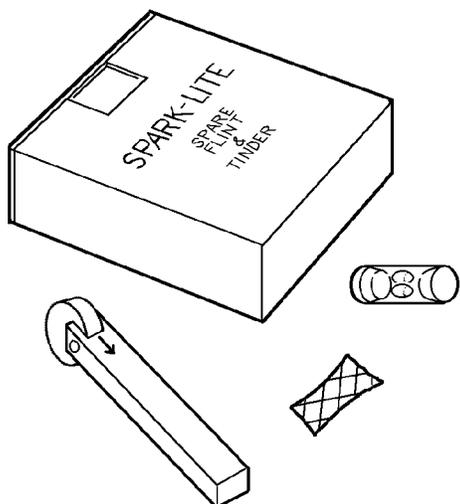


Figure 9-31. Fire Starter

009031

9-269. INSPECTION. The Fire Starter shall be inspected upon issue and every 90 days thereafter or at intervals to coincide with the inspection schedule of the kit in which the Fire Starter is stored. Inspect the Fire Starter container for security and to ensure the contents are encased within.

Section 9-29. Pocket Chain Saw

9-270. DESCRIPTION.

9-271. The Pocket Chain Saw (P/N 550044) (figure 9-32) is constructed of a series of steel links with machined teeth, fastened together to form a 30-inch long flexible hand operated chain saw. It has removable steel ring handles to provide a method of gripping the ends of the chain saw. The chain saw is stored in a metal container which is 5/8 x 2 5/8 inches.

NOTE

The Pocket Chain Saw is available from the following source:

Exploration Products
3924 Irongate Rd. Suite C
Bellingham, WA 98226
800-448-7312

9-272. APPLICATION.

9-273. The Pocket Chain Saw is used to cut wood, plastic, bone, rubber, or soft metal.

9-274. MAINTENANCE.

9-275. Maintenance of the Pocket Chain Saw is limited to inspection.

9-276. INSPECTION. The Pocket Chain Saw shall be inspected every 90 days or at intervals to coincide with the kit in which the Pocket Chain Saw is stored. Inspect the Pocket Chain Saw container for security and to ensure the contents are encased therein.

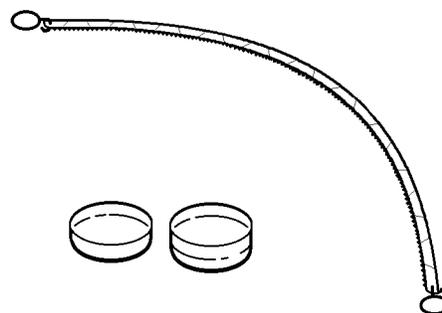


Figure 9-32. Pocket Chain Saw

009032

Section 9-30. Personnel-Lowering Device

9-277. DESCRIPTION.

9-278. The Personnel-Lowering Device (PLD) provides a safe method of descent should an aircrewmember be

caught in a tree or other high obstacle while attempting an emergency parachute descent. The aircrewmember can attach the device to the entangled parachute, disconnect from the parachute, then lower safely to the ground.

9-279. CONFIGURATION.

9-280. The Personnel-Lowering Device (CL213D2-1, NIIN 00-451-3324, CAGE 80206) consists of the lowering device container and 150 feet of 3/4-inch tubular nylon, incorporating appropriate snaphook and a braking device folded within the container (figure 9-33).

9-281. APPLICATION.

9-282. The Personnel-Lowering Device (PLD) enables an aircrewmember who is entangled in a tree after parachuting to descend to the ground. The PLD is normally stored in rigid seat survival kits. Refer to NAVAIR 13-1-6.3-1.

9-283. MODIFICATION.

9-284. There are no current directives affecting the Personnel-Lowering Device.

9-285. MAINTENANCE.

9-286. Maintenance or repair to the Personnel-Lowering Device shall be performed by Intermediate Level or above unless otherwise specified. Maintenance consists of inspection and fabrication of the lowering device. Repair and fabrication instructions to maintain serviceability are listed in table 9-5.

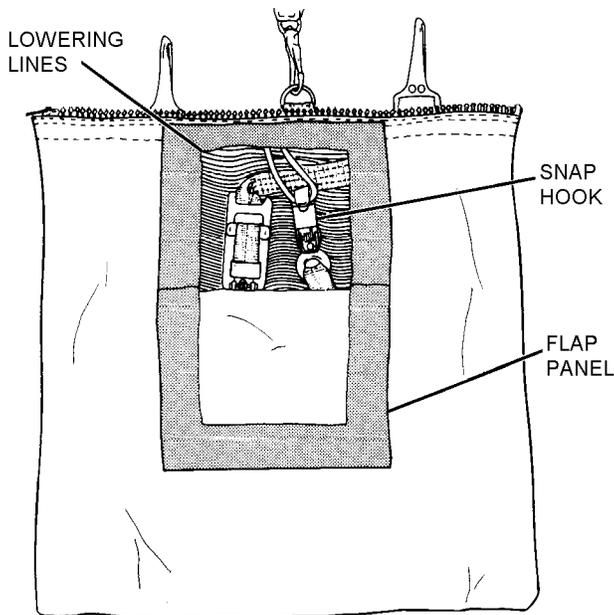


Figure 9-33. Personnel-Lowering Device

9-287. INSPECTION. The Personnel-Lowering Device shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which the PLD is stored. To inspect the Personnel-Lowering Device, proceed as follows:

1. Check lowering line, container, and attachment components for signs of wear, cuts, deterioration, fraying, broken stitches, and improper attachment or installation.

2. Any webbing or fabric which has been in contact with grease, oil, liquid oxygen, strong caustic soaps, acid, or abrasive materials and shows evidence of damage or deterioration shall be removed from service.

3. Ensure that lines are not snagged or tangled in container.

9-288. FABRICATION OF THE PERSONNEL-LOWERING DEVICE. To fabricate the Personnel-Lowering Device, proceed as follows:

Materials Required		
Quantity	Description	Reference Number
1	Kit PLD	V66-1ACC218
14 1/2 x 30 Inches and 8 x 7 Inches	Cloth, Duck, Nylon, Type III	MIL-C-7219 NIIN 00-765-2863
35 Inches Each	Fastener Tape, Hook and Pile, Type II	MIL-F-21840 NIIN 00-106-5974
2	Snaphook, 3/4-Inch	MIL-S-43770-12A MIZEI NIIN 00-264-7672
As Required	Webbing, Nylon, Tubular, 3/4-Inch	MIL-W-5625
10 Inches	Webbing, Textile, Nylon Type II, 1-Inch	MIL-W-4088 NIIN 00-262-1643
60 Inches	Cord, Nylon, Type III	MIL-C-5040 NIIN 00-240-2146
45 Inches	Webbing Textile Elastic Class I, 1-Inch	MIL-W-5664 NIIN 00-270-1869
13 x 13 Inches	Cloth, Duck, Cotton Type I	CCC-C-419, NIIN 00-185-8657
60 Inches	Tape, Textile, Reinforcing Nylon Type III, 3/4-Inch	MIL-T-5038 NIIN 00-176-8083
As Required	Thread, Nylon Type II, Class A, Size E	V-T-295 NIIN 00-244-0609

Table 9-5. Personnel-Lowering Device Repairs and Fabrications

Description of Repairs or Fabrications	Application	Paragraph
Fabrication of Personnel-Lowering Device	All Personnel-Lowering Devices	9-288

1. To make the lowering device container, proceed as follows:

a. Cut and sear from nylon duck the following panels:

- one piece, 14 1/2 x 30 inches
- one piece, 7 x 7 inches

b. Cut and sear the following pieces of 1-inch webbing:

- two pieces, 3 inches long
- one piece, 5 inches long

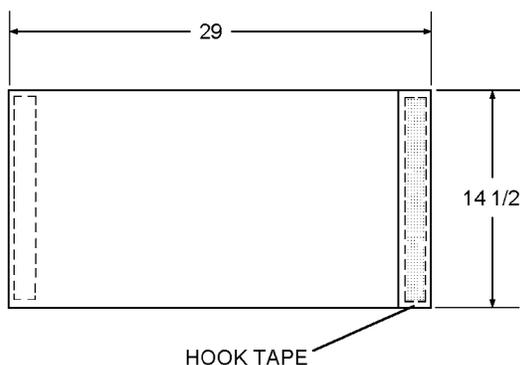
c. Cut the following pieces of hook and pile tape.

- one piece, 14 1/2 inches long
- two pieces, 4 1/2 inches long
- one piece, 6 inches long

d. Cut and sear the following pieces of parachute nylon cord:

- one piece, 5 inches long
- one piece, 72 inches long

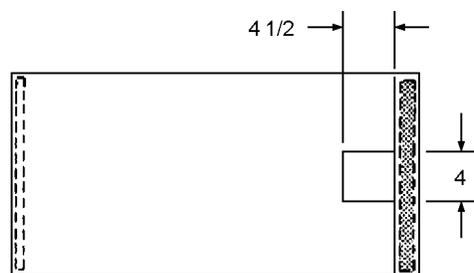
e. With the 30-inch dimension of the container panel running right and left, turn the left edge under 1/2-inch and the right edge over 1/2-inch. Place a 14 1/2-inch length of pile tape beneath the fold under and stitch in place with two rows of stitches 1/8-inch from edge and 3/4-inch apart. Place hook tape over 1/2-inch; fold over and stitch in the same manner.



Step 1e - Para 9-288

0928801e

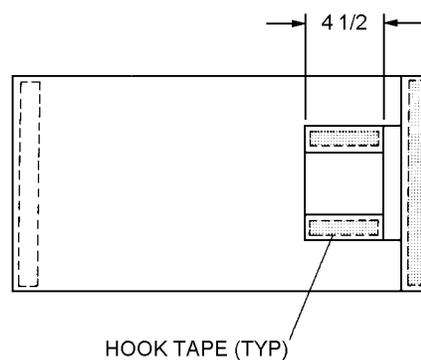
f. Measure 2 inches from the right edge of fabric. Cut out a 4-inch by 4 1/2-inch rectangle, centered along the 14 1/2-inch side of fabric. Sear edges of rectangle.



Step 1f - Para 9-288

0928801f

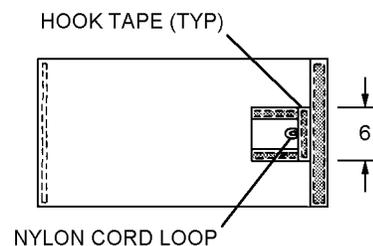
g. Stitch a 4 1/2-inch length of hook tape to each side of rectangle.



Step 1g - Para 9-288

0928801g

h. Place a 6-inch length of hook tape adjacent to 14 1/2-inch side of fabric. Prior to stitching hook tape, form a loop from the 5-inch length of nylon cord and tuck ends under center of hook tape to permit stitching to catch loop ends. Stitch hook tape in place.

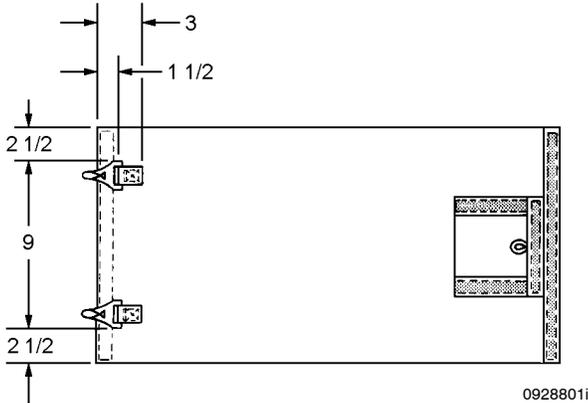


Step 1h - Para 9-288

0928801h

NAVAIR 13-1-6.5

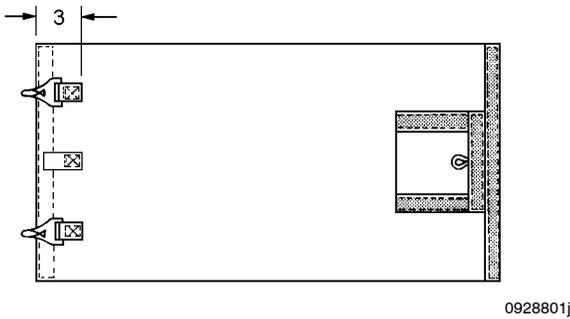
i. Install two 1 3/4-inch snaphooks each with a piece of 3-inch long nylon webbing. The webbing shall be folded over with the snaphook held within the fold. Boxstitch in place.



Step 1i - Para 9-288

0928801i

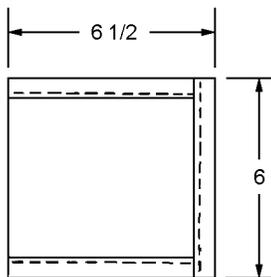
j. Form a retrieving line loop by folding a 5-inch piece of nylon webbing. Place open edge 3 inches from left side of container panel, centered between snaphooks. Stitch in place using boxstitch.



Step 1j - Para 9-288

0928801j

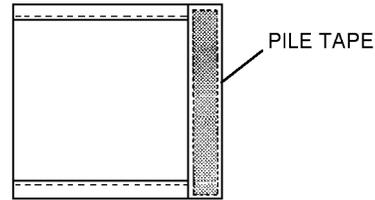
k. Fold three sides of the square container flap panel over 1/2-inch. Baste in place.



Step 1k - Para 9-288

0928801k

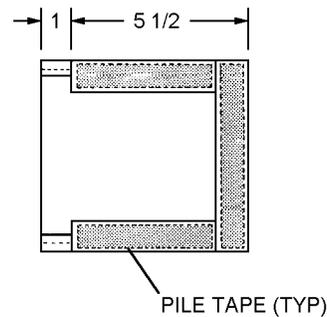
l. Place a 6-inch length of pile tape over the center fold, flush with edge of flap. Stitch in place.



Step 1l - Para 9-288

0928801l

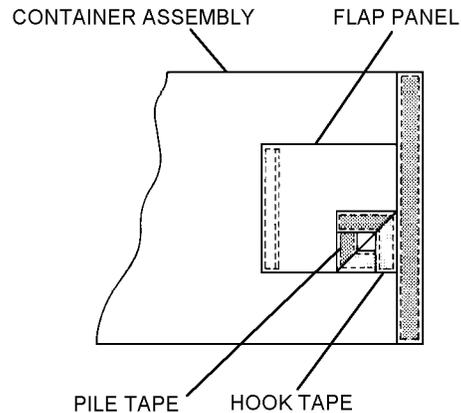
m. Place a 4 1/2-inch length of pile tape along each of the remaining folds. Tape should butt against 6-inch length of pile tape. Stitch in place.



Step 1m - Para 9-288

0928801m

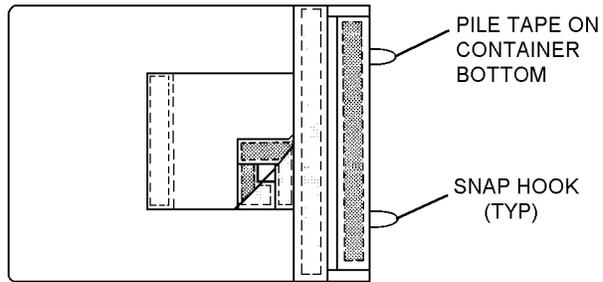
n. Place the assembled flap with the pile tapes directly over the hook tapes on the container panel rectangular opening. Fold under remaining raw edge of flap, 1/2 inch. Stitch through flap fold and container panel to attach flap to container.



Step 1n - Para 9-288

0928801n

o. Fold the container panel over, bringing the hook tape flush with, but not over, the pile tape, thereby keeping right edge 1 inch from coinciding with the left edge. Stitch through raw edges on each side, 1/2 inch from edge, to form container seams. Backstitch the seams on each end for a distance of 3/4 inch. Turn container right side out to complete the assembly.



Step 1o - Para 9-288

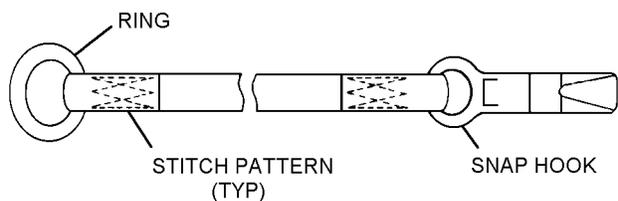
0928801o

2. To make the lowering line assembly, proceed as follows:

a. Cut the following pieces of 3/4-inch tubular nylon textile webbing:

- (1) one piece, 151 feet 1/2 inches long
- (2) one piece, 2 feet 9 inches long

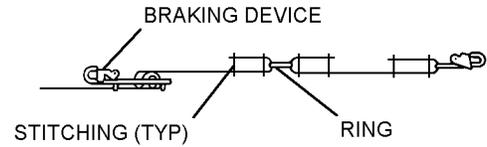
b. Fold over each end of the 2-foot 9-inch length of tubular nylon, a distance of 4 1/2 inches. Place the attachment end of snaphook No. 66C1705 within one fold and the metal ring No. 66B1717 within the other fold. Stitch each fold a distance of 4 inches using nylon 6-cord in stitch pattern illustrated.



Step 2b - Para 9-288

0928802b

c. Reeve the braking device on the white end of the long piece of tubular nylon. Fold 4 1/2 inches over on the white end of the long piece of tubular nylon. Place the metal ring, attached to the 2-foot 9-inch length of tubular nylon, within the fold. Stitch in place.



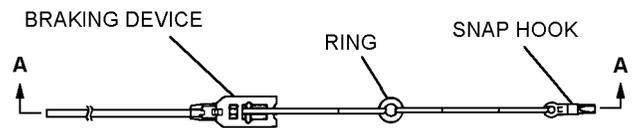
Step 2c - Para 9-288

0928802c

NOTE

The last 20 feet of the opposite end of the longer length of tubular nylon is dyed yellow to indicate the approaching end of the line.

d. At the extreme end of the dyed portion of line, form a 4-inch double foldover. Stitch with a 1/2 x 2-inch boxstitch, using nylon 6-cord, to form a stop.



SECTION A - A

Step 2d - Para 9-288

0928802d

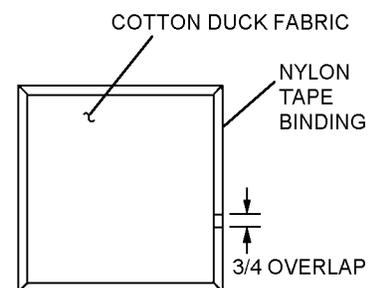
3. To make the line tray, proceed as follows:

a. Cut one piece of cotton duct cloth 13 x 13 inches square.

b. Cut one piece of 3/4-inch nylon textile tape 52 3/4 inches long.

c. Cut two pieces of 1-inch wide elastic textile webbing 20 1/2 inches long.

d. Bind the edges of the 13-inch square cotton duck fabric with nylon tape. Starting at midpoint of one side, fold tape around edge of fabric and stitch with two rows of stitching. Sew tape completely around the cloth, and form a 3/4-inch overlap when ends meet.



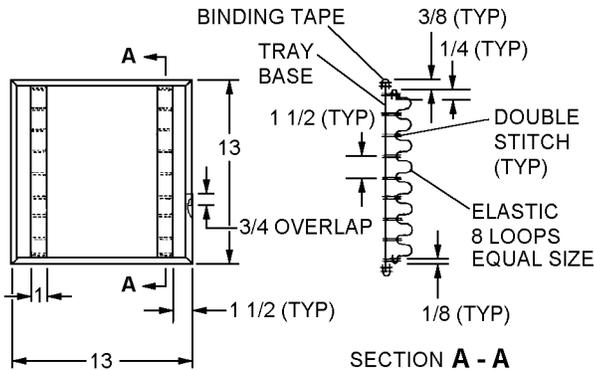
Step 3d - Para 9-288

0928803d

NAVAIR 13-1-6.5

e. Place the two pieces of elastic webbing 1 1/2 inches from edge on opposite edges of tray. Fold the end under 1/4-inch and double stitch across the elastic webbing, 1/8-inch from edge of tray.

f. Double stitch every 1 1/2 inches, forming a 2 1/2-inch loop in webbing between double stitched rows. Fold the remaining end of the tape under 1/4 inch and double stitch 1/8 inch from edge of tray.



Step 3f - Para 9-288

0928803f

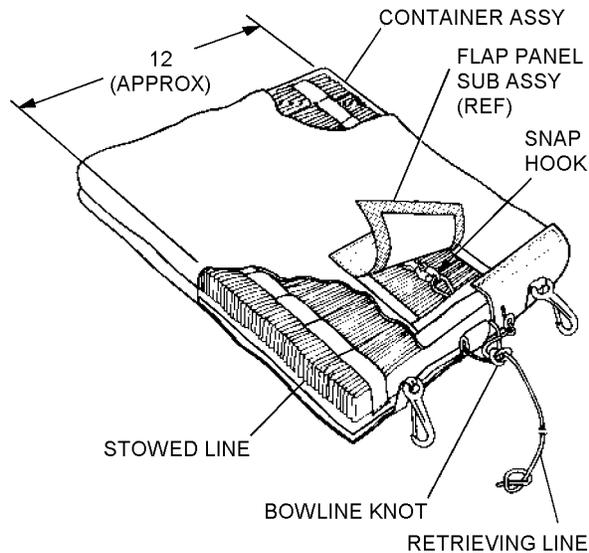
4. To complete the fabrication of the lowering device assembly, proceed as follows:

a. Stow line, making twelve, 12 1/2-inch bights, placing nine folds into each elastic loop.

b. Place the completed line tray with line, into the completed container with the STOP end of the dyed portion of line entering first.

c. Open the flap and secure the lowering line snap to the nylon cord loop. Close the flap.

d. Attach the retrieving line to the center 1-inch webbing loop with a bowline knot.



Step 4d - Para 9-288

0928804d

Section 9-31. Hand Pump

9-289. DESCRIPTION.

9-290. The Hand Pump and its hose is used as a unit to aid aircrew personnel, forced to take to liferafts, to pump up various portions of the liferaft.

9-291. CONFIGURATION.

9-292. The Hand Pump unit (MIL-P-8258, NIIN 00-097-4580) consists of a barrel, plunger, check valve and hose (figure 9-34).

9-293. APPLICATION.

9-294. The Hand Pump is used to inflate liferaft seats, inflatable floors, and other compartments not inflated by the liferaft inflation assembly. The pump is also used to top-off an inflated liferaft or maintain inflation of a leaky liferaft.

9-295. MAINTENANCE.

9-296. Maintenance of the Hand Pump is limited to inspection.

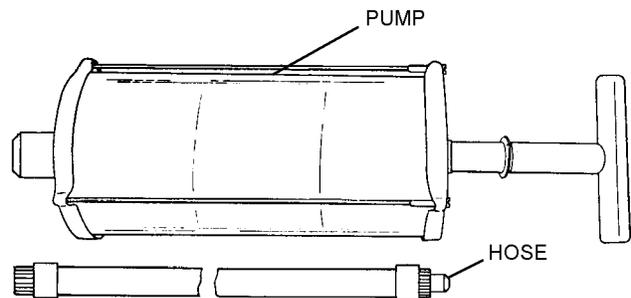


Figure 9-34. Hand Pump

009034

9-297. INSPECTION. The Hand Pump shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which the Hand Pump is stored. To inspect the Hand Pump, proceed as follows:

1. Operate pump to ensure pump delivers air.

2. Ensure that hose can be attached to Hand Pump and to liferaft topping-off valves.

3. Ensure hose is secured to Hand Pump with a short line to prevent loss.

Section 9-32. Rations

9-298. DESCRIPTION.

9-299. The Ration Packets are used in emergency situations for purposes of quick energy when no other food is available.

9-300. CONFIGURATION.

9-301. The Ration Packets (NIIN 01-028-9406) consist of two packets of candy and gum, twine, and an instruction sheet. These items are in a polyethylene bag or metal can (figure 9-35).

9-302. Datrex 2400Kcal food rations pack is an authorized substitute for the can or bagged food packets. The Datrex food rations can be purchased from the following source or other sources that carry the 2400Kcal packs:

Datrex Industries
(800) 828-1131
www.datrex.com
P/N DX2400F

NOTE

The rate of replacement is one 2400Kcal pack for every three persons. Example: four 2400Kcal packs = 12 persons.

9-303. APPLICATION.

9-304. The Ration Packet is intended to provide quick energy to the downed aircrewmembers when no other food is available.

9-305. MAINTENANCE.

9-306. Maintenance of Ration Packets is limited to a visual inspection.

9-307. INSPECTION. The Ration Packet shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which it is stored.

1. Inspect packaging for holes, tears, corrosion, legibility of wording and security of vacuum pack as required.

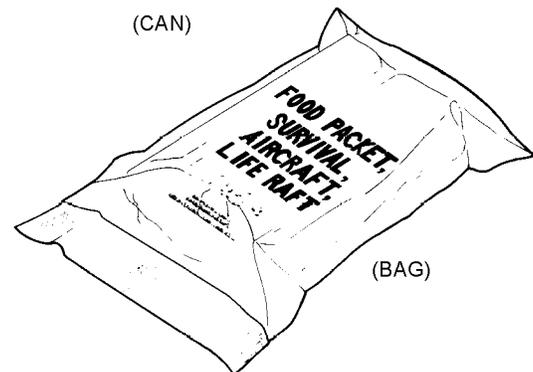
2. Inspect Datrex product for shelf life date. Shelf life is 5 years from the date of manufacture. Annotate expiration date on history card.

3. Can and bag food rations have no shelf/service life.

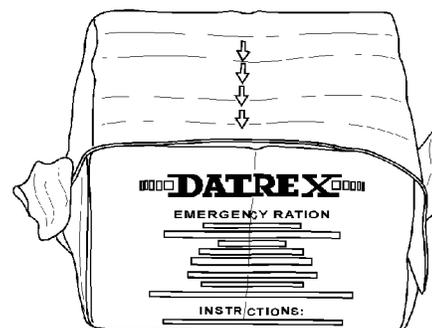
4. Replace food rations as necessary.



(CAN)



(BAG)



(DATREX)

Figure 9-35. Rations

009035

Section 9-33. MK-79 MOD 0 and MK-79 MOD 2 Personnel Distress Signal Kit

9-308. DESCRIPTION.

9-309. The MK-79 MOD 0 and MK-79 MOD 2 Personnel Distress Signal Kits consist of a pencil-type launcher and cartridge flare used to attract attention of rescue parties or aircraft. Each cartridge flare has a duration of 4 1/2 seconds minimum and is propelled upward to a height of 250 to 650 feet.

WARNING

Pyrotechnics must not be taken to the barracks and, when removed from bandolier, should be returned to original container.

9-310. CONFIGURATION.

NOTE

The MK-79 MOD 2 (NIIN 01-230-3974) is an alternate to the MK-79 MOD 0 (NIIN 00-866-9788) Personnel Distress Signal Kit.

9-311. The MK-79 MOD 0 (NIIN 00-866-9788) and MK-79 MOD 2 (NIIN 01-230-3974) Personnel Distress Signal Kits consist of one signal projector MK-31 MOD 0 (NIIN 01-123-4745) and a plastic bandolier holding seven screw-in signal cartridges MK-80 MOD 0 (NIIN 00-930-7746) or MK-80 MOD 2 (NIIN 01-216-3243). The plastic bandolier, which stores the signals until use, has plastic tabs over the signal end to protect the signal percussion primers from being struck accidentally. If the plastic bandolier is not used to store the signals, protective caps (MS90376-8Y) shall be used to protect the signal percussion primers (figure 9-36).

9-312. APPLICATION.

9-313. The MK-79 MOD 0 and MK-79 MOD 2 are intended to attract attention of SAR aircraft or ground rescue parties by launching cartridge flares into the air.

9-314. MAINTENANCE.

9-315. Maintenance of the MK-79 is limited to inspection.

NOTE

Inspection procedures apply to both the MK-79 MOD 0 and MK-79 MOD 2.

9-316. INSPECTION. The MK-79 shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which the MK-79 is stored. To inspect the MK-79, proceed as follows:

WARNING

Dispose of any signals found to have corrosion or dented cases. Signals with even slight corrosion at the cap/body interface (output end of signal) may have more severe internal corrosion. This may result in violent action of the flare when fired causing severe or fatal injuries.

NOTE

Flare lots which have been reclassified by a Notice of Ammunition Reclassification (NAR) will only be removed and replaced when directed by an Aircrew System Bulletin (ACB).

If a bandolier is not used, protective plastic caps shall be installed on flares or flares shall be removed from service and stored.

1. Inspect for damaged primers.
2. Inspect flares for dents or other damage.
3. Inspect bandolier (if used) for plastic tabs protecting signal percussion primer.
4. Inspect for loose end caps. If loose, discard loose end cap.

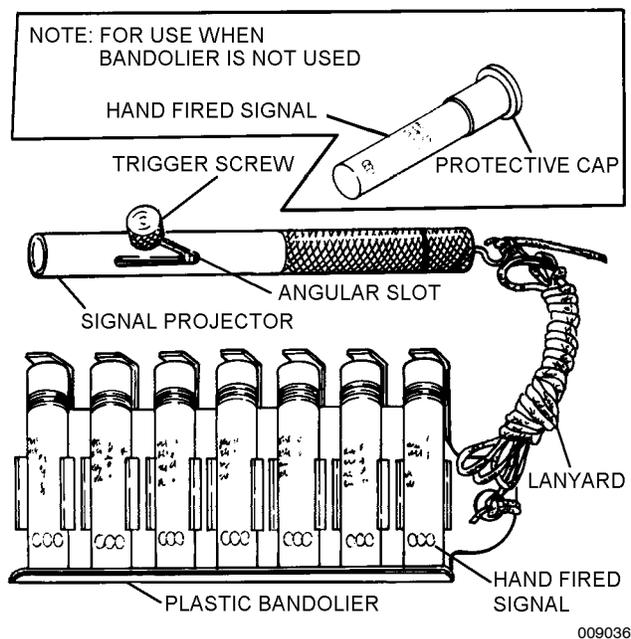


Figure 9-36. MK-79 MOD 0 and MK-79 MOD 2 Personnel Distress Signal Kit

5. Inspect flares for overflush or protruding primers. Replace if necessary.

6. Inspect for dents on launcher.

WARNING

Flare should not be threaded into launcher under any circumstance during inspection.

7. Inspect for loose or missing parts on launcher.

8. Ensure launcher is stored in the cocked position (knurled knob back) and is empty while in the survival vest pocket.

9. Prior to issue, the knob and handle of the launcher should be checked for security.

10. Ensure only screw-in type cartridges are issued with MK-79 MOD 0 and MK-79 MOD 2 Kits.

Section 9-34. MK-124 MOD 0 Marine Smoke and Illumination Signal

9-317. DESCRIPTION.

9-318. The MK-124 MOD 0 Marine Smoke and Illumination Signal is intended for either day or night signaling by aircraft personnel downed at sea or land. The signal is a one hand operable device, intended for rescue use. Its small size and weight permits it to be carried in life vest or flight suit pockets and on liferafts. The signal is listed under DL 3139734, Specification WS 13697, NIIN 01-030-8330, and DOD Code No. L283 (figure 9-37).

9-319. CONFIGURATION.

9-320. The MK-124 MOD 0 signal consists of an aluminum case slightly over 5 inches long and 1 1/2 inches in diameter. Each end of the signal is provided with a protective cap. The case has two raised bead circles around its circumference on the flare (night) end to facilitate identification in darkness. On the outside of the MK-124 MOD 0 are operating instructions and further identification of smoke (day) and flare (night) ends. The case contains four subassemblies; smoke candle, smoke igniter, flare candle and flare igniter. The igniter is one-hand operable. It consists of an arming lever that must

be extended to the armed position and then depressed to cock and release the firing pin. The signal emits an orange smoke or red flare for approximately 20 seconds.

9-321. APPLICATION.

9-322. The MK-124 MOD 0 signal is intended to attract the attention of SAR aircraft and to give wind drift direction. The ignited MK-124 MOD 0 signal must be held at arms length at a 45° angle from the horizontal. If the signal is being used at sea, hold it over the side of the liferaft to prevent damage to the liferaft from hot residue.

9-323. MAINTENANCE.

9-324. Maintenance of the MK-124 MOD 0 signal is limited to inspection.

9-325. INSPECTION. The MK-124 MOD 0 shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which it is stored. To inspect the MK-124 MOD 0, proceed as follows:

WARNING

Dents or other imperfections might result in violent action of the flare when fired. Damaged flares shall be discarded in accordance with applicable instructions.

NOTE

Flare lots which have been reclassified by a Notice of Ammunition Reclassification (NAR) will only be removed and replaced when directed by an Aircrew System Bulletin (ACB).

1. Inspect signal for dents as follows:

a. If signal appears to have been crushed to the point where either candle would be distorted enough to adversely affect its burn time, it shall be rejected.

b. A dent of 1/8 inch or less in any area other than those identified in items c and d below is acceptable.

c. Any dent located along or adjacent to the seam or either canded end of the outer container of the signal which could compromise the water tightness of the container and subject the signal to leakage when exposed to moisture shall be rejected.

WARNING

Due to the possibility of ignition, pull strips shall not be moved from the stowed position for any reason during inspection procedures.

d. A dent of any size located on or close to the pull strip under the protective caps on either end of the signal which could permit the entrance of moisture and cause signal to malfunction shall be rejected.

2. Ensure Lot Number is on flare and readable.
3. Inspect for external corrosion.

NOTE

New end caps will be introduced by attrition. The new end caps will be color-coded the same as the firing levers.

4. Ensure that protective caps are securely in place. Signal shall not be packed without end caps.

5. Replace flare as required.

9-326. SHIPPING CONTAINERS. The MK-124 MOD 0 signals are packaged 12 per MK 3 MOD 0 Aluminum containers (DL 3139738) with 9 such containers (108 signals) per wooden box (DL 2128332).

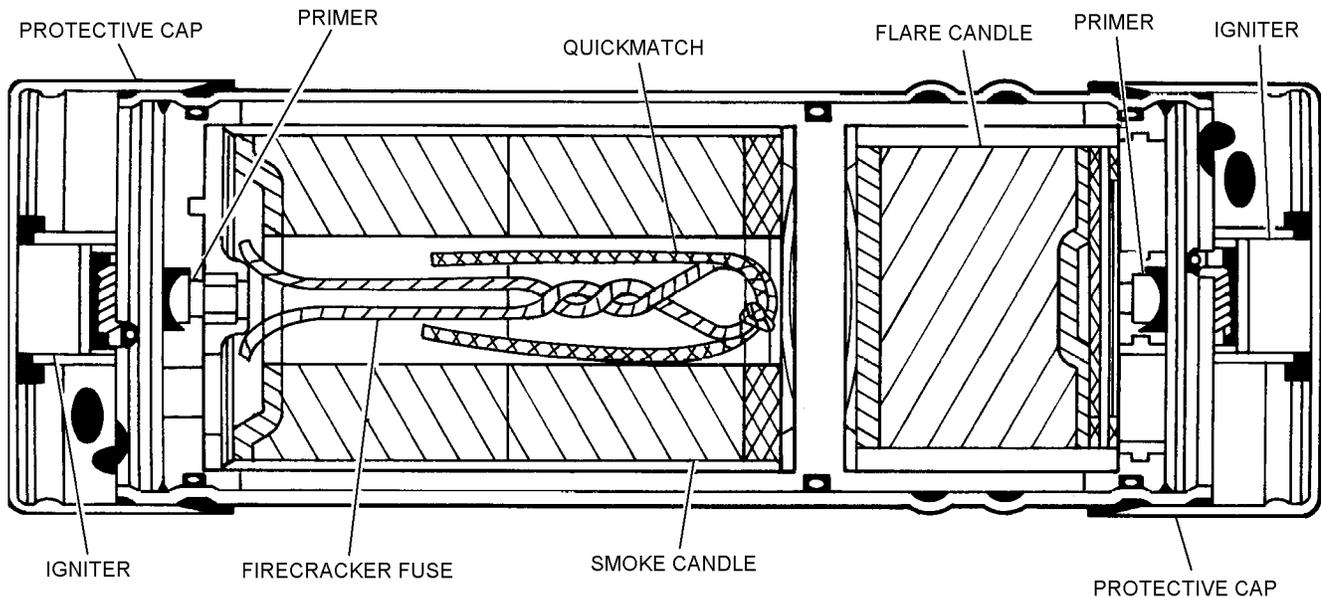


Figure 9-37. MK-124 MOD 0 Marine Smoke and Illumination Signal

009037

Section 9-35. Bailing Sponge

9-327. DESCRIPTION.

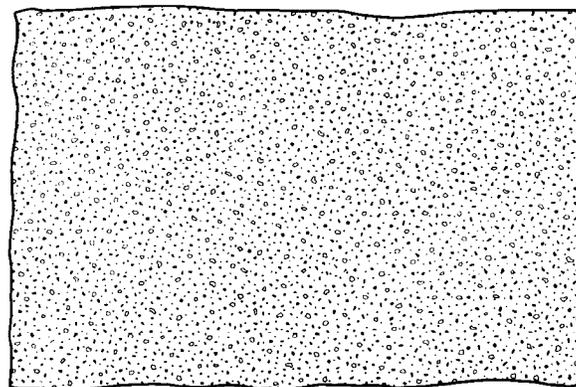
9-328. The Bailing Sponge (L-S-626) is contained in the survival kit to catch rain water, bail a liferaft, for personnel hygiene, and as a fishing lure (a small piece soaked in animal blood). The sponge is made from cellulose and comes in various sizes (figure 9-38).

9-329. MAINTENANCE.

9-330. Maintenance of the Bailing Sponge is limited to inspection.

9-331. INSPECTION. The Bailing Sponge shall be inspected upon issue and every 90 days thereafter or at intervals to coincide with the inspection schedule of the kit or assembly in which the Bailing Sponge

is stored. Inspect the Bailing Sponge for rips, tears and contamination.



009038

Figure 9-38. Bailing Sponge

Section 9-36. Signaling Whistle

9-332. DESCRIPTION.

9-333. The Signaling Whistle is used for attracting attention of rescue ships or personnel in foggy weather or at night.

9-334. CONFIGURATION.

9-335. The Signaling Whistle (MIL-W-1053, NIIN 00-254-8803) is made of plastic with a lanyard attached for easy access and to prevent loss (figure 9-39).

9-336. APPLICATION.

9-337. The Signaling Whistle is intended for use when an aircrewmember is downed and a signal is needed to attract attention of the rescue party or to gather members of the aircrew together.

NOTE

When current supplies are exhausted, Signaling Whistle MIL-W-1053 (NIIN 00-254-8803) will be replaced by Signaling Whistle, Classic Fox 40, (NIIN 01-447-8766).

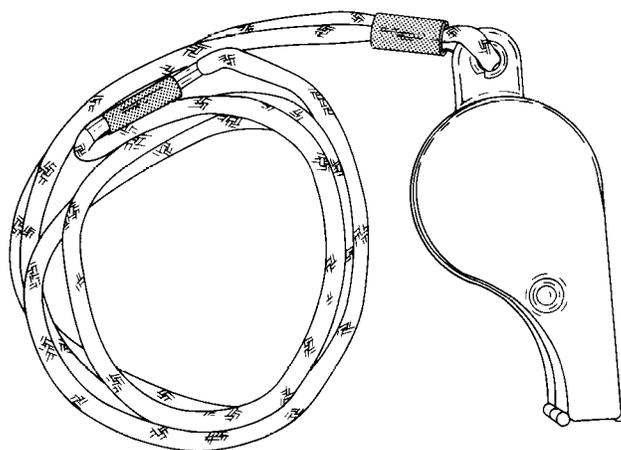
9-338. MAINTENANCE.

9-339. Maintenance of the Signaling Whistle is limited to inspection.

9-340. INSPECTION. The Signaling Whistle shall be inspected upon issue and every 90 days thereafter, or at

intervals to coincide with the inspection schedule of the kit or assembly in which the signaling whistle is stored. To inspect the Signaling Whistle, proceed as follows:

1. Ensure whistle side discs are not loose or missing. Inspect whistle for cracks and damaged ball. Damaged or defective whistles shall be replaced.
2. The whistle shall be blown with a normal blow (regular exhalation); it shall also be blown with an over-blow (forced exhalation). If the whistle fails to emit a highly audible sound, it shall be replaced.



009039

Figure 9-39. Signaling Whistle

Section 9-37. Signaling Whistle, Classic Fox 40 (Black, No-Moving Parts)

9-341. DESCRIPTION.

9-342. The Classic Fox 40 Signaling Whistle, (NIIN 01-447-8766) is an all plastic whistle with no moving parts. It produces a variable high frequency sound which is more readily heard over background noise. The primary purpose of the Classic Fox 40 Signaling Whistle is to attract attention and provide a focal point for search and rescue personnel during low visibility conditions at sea or on land.

9-343. CONFIGURATION.

9-344. The Classic Fox 40 Signaling Whistle comes in one configuration; all plastic with no moving parts. A lanyard shall pass through eyelet of whistle for attachment to the individual aircrewmember's survival vest (figure 9-40).

NOTE

The Classic Fox 40 Signaling Whistle shall replace current Signaling Whistle (NIIN 00-254-8803) through attrition.

9-345. APPLICATION.

9-346. The Classic Fox 40 Signaling Whistle is intended for use by downed aircrewmembers to attract attention of search and rescue personnel and/or to provide assembly point for other members of downed aircrew.

9-347. MAINTENANCE.

9-348. Maintenance of the Classic Fox 40 Signaling Whistle shall be limited to inspection and simple purg-

ing to clean dirt or excess moisture from interior of whistle.

9-349. CLEANING. Clean excess moisture and dirt from interior of whistle by forcefully blowing whistle. Clean exterior using clean damp cloth.

9-350. INSPECTION. The Classic Fox 40 Signaling Whistle shall be inspected upon issue and every 90 days thereafter or at intervals to coincide with inspection schedule of kit or assembly in which whistle is stowed. To inspect the Signaling Whistle, proceed as follows:

1. Thoroughly check for cracks or other defects. Cracked and/or defective whistles shall be replaced.
2. Test whistle using normal breath pressure and again using forceful breath pressure. If whistle fails to emit highly audible sound, it shall be replaced.
3. Inspect lanyard for cuts, fraying, and security of attachment to whistle. Replace lanyard as necessary.

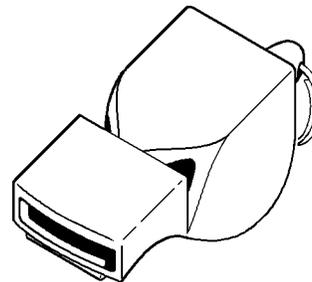


Figure 9-40. Classic Fox 40 Signaling Whistle

009040

Section 9-38. Aircrewmember's Survival Tool Kit

9-351. DESCRIPTION.

9-352. The Aircrewmember's Survival Tool Kit aids a downed aircrewmember to sustain life in adverse environments.

9-353. CONFIGURATION.

9-354. The Aircrewmember's Survival Tool Kit (depending on the type) contains various tools such as an axe, saw, lens, sharpening stone and fire starter (figure 9-41). The saw and axe all have covers to protect the aircrewmember from injury during travel. Applicable reference document is MIL-S-8642.

9-355. APPLICATION.

9-356. The Aircrewmember's Survival Tool Kit is intended to aid in constructing shelter, animal traps, cutting firewood and starting fires. Items in the kit can also be used to skin animals, clean fish, or as weapons.

9-357. MAINTENANCE.

9-358. Maintenance of the Aircrewmember's Survival Tool Kit is limited to inspection.

9-359. INSPECTION. The Aircrewmember's Survival Tool Kit shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which the survival tool kit is stored. To inspect the Aircrewmember's Survival Tool Kit, proceed as follows:

WARNING

Metal matches are a suspected source of spontaneous ignition through oxidation. The metal match should remain in its original sealed container (foil-wrapped) until ready for use. **DO NOT STOW AFTER REMOVAL FROM PACKAGE.** All metal matches in polyethylene and open packets shall be removed from service and discarded in a fireproof container.

NOTE

The Aircrewmember's Survival Tool Kit may be considered RFI without the presence of metal matches and/or tinder.

1. Ensure completeness of kit.
2. Ensure that kit is free of deterioration, rust, and broken components.

Section 9-39. Aircrewmember's Lighted Clipboard (MXU-163/P)**9-360. DESCRIPTION.**

9-361. The Aircrewmember's Lighted Clipboard is designed to be held in place on the aircrewmember's thigh with a quick-release adjustable leg strap.

9-362. CONFIGURATION.

9-363. The Aircrewmember's Lighted Clipboard (MIL-C-23157) is made of aluminum and consists of a lighted assembly, two spring clips (to hold flight plan cards and other pertinent data), pencil sharpener, two tube pencil holders, coil spring pencil holder, two polyurethane friction strips, and hook and pile tape (provides a protective cover for quick-release button). The light assembly consists of three 1.5-volt AA batteries, two 352 replaceable type lamps, and a rotary action switch with rheostat for varying the light intensity. The battery holder tube is made of aluminum with a knurled end cap. The end cap is placed with a bayonet type lock (figure 9-42).

NOTE

Use of alkaline batteries (NIIN 00-985-7845) is preferred. Carbon-zinc batteries may be

used only when alkaline batteries are unavailable.

9-364. APPLICATION.

9-365. The Aircrewmember's Lighted Clipboard is intended to provide a pilot with a place to keep his flight plan and enroute charts and to provide a surface for making notations while in flight.

9-366. MODIFICATION.

9-367. There are no current directives affecting the Aircrewmember's Lighted Clipboard.

9-368. MAINTENANCE.

9-369. Maintenance or repair of the Aircrewmember's Lighted Clipboard shall be performed at the lowest capable level. Maintenance consists of inspection and installation of safety wire on battery cap. Repair, fabrication, and installation instructions are listed in [table 9-6](#).

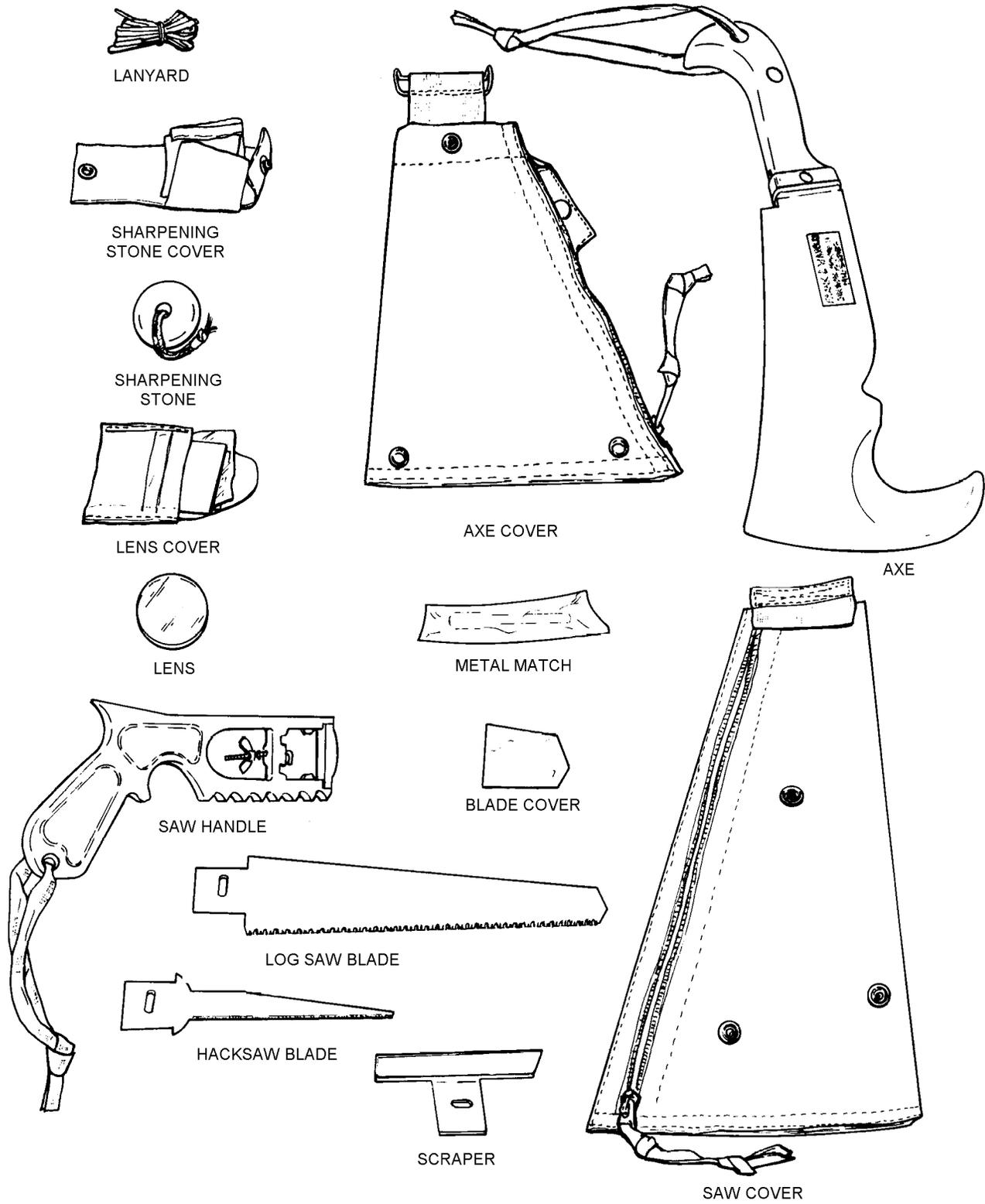


Figure 9-41. Aircrewmember's Survival Tool Kit (Typical)

009041

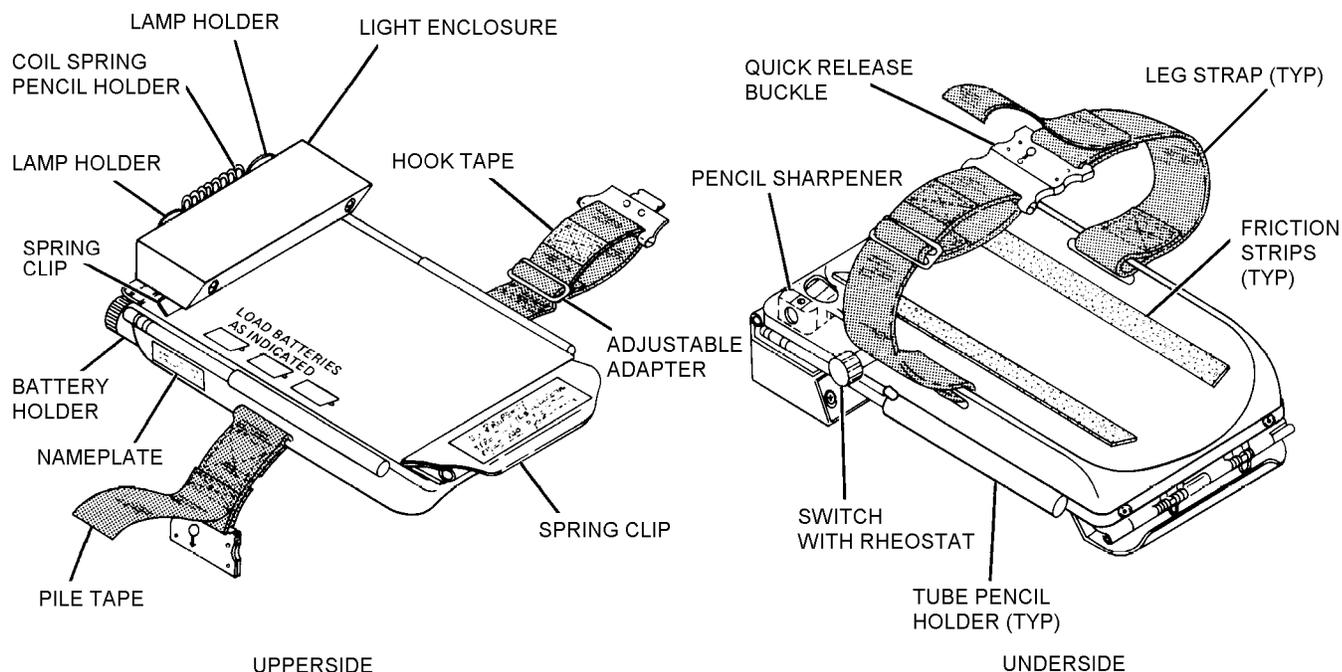


Figure 9-42. Aircrewmember's Lighted Clipboard (MXU-163/P)

009042

Table 9-6. Aircrewmember's Lighted Clipboard Repairs and Fabrications

Description of Repairs or Fabrications	Application	Paragraph
Installation of Safety Wire to Battery Cap	All Aircrewmembers	9-371

9-370. INSPECTION. The Aircrewmember's Lighted Clipboard shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or assembly in which the Aircrewmember's Clipboard is stored. To inspect the Aircrewmember's Clipboard, proceed as follows:

1. Ensure clipboard is not broken, cracked, or bent, or otherwise damaged.
2. Ensure spring clips, light assembly, battery holder cap, leg strap buckle, and other functioning accessories operate properly.
3. Inspect battery and battery compartment for corrosion.

9-371. INSTALLATION OF SAFETY WIRE TO BATTERY CAP (IF REQUIRED). To safety-wire the

battery cap to preclude unintentional separation from battery holder, proceed as follows:

NOTE

Safety-wiring of cap is applicable only if cap appears loose when attached to battery holder.

Materials Required

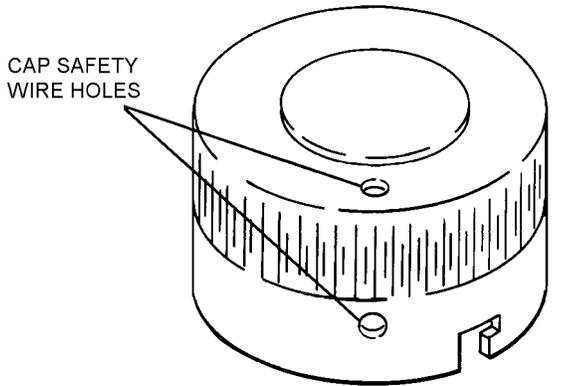
Quantity	Description	Reference Number
1	Drill, No. 52	—
As Required	Aluminum Alloy Wire 0.032-Inch Diameter Temper 0	QQ-A-225/1 NIIN 00-508-2549

1. Remove cap (turn counterclockwise to unlock) and remove batteries (if installed) from battery holder.



Avoid drilling holes close to cap retention pin. Ensure spring attached to cap is not damaged.

2. Using a No. 52 drill, drill two holes in cap as shown.



Step 2 - Para 9-371

09371002

3. Place drilled cap on battery holder and turn clockwise to lock.

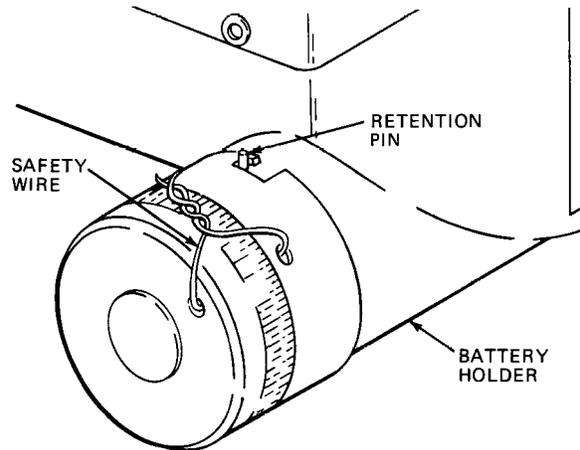
4. Mark location of drilled (side) hole of cap on battery holder.

5. Remove cap from battery holder and center punch battery holder on mark (step 4).

6. Place a No. 52 drill on punch mark (step 5), and drill hole in battery holder.

7. Install batteries, place cap on battery holder, and turn clockwise to lock.

8. Route safety wire through matching side holes of cap and battery holder and through top hole of cap. Twist end of wire a minimum of four times and trim excess.



Step 8 - Para 9-371

09371008

9. To avoid possible injury during handling/use, fold trimmed wire down against cap. Wrap two to three turns of pressure sensitive tape around cap covering wire ends.

Section 9-40. Pilot's Mapstrap Kneeboard, Clipboard

9-372. DESCRIPTION.

9-373. The Pilot's Mapstrap Kneeboard, Clipboard, NIIN 01-012-9174, (figure 9-43) (hereinafter referred to as board) is 5 x 8 inches, made of flexible plastic. The board is designed to be used in position around the thigh, and held in place and adjusted by use of hook and pile tape. An extension piece is provided in the kit for use with bulkier winter clothing or larger aircrew persons. An additional strap is provided to secure larger items such as Approach Plates or pocket NATOPS to the board.

9-374. APPLICATION.

9-375. The Pilot's Mapstrap Kneeboard, Clipboard is an optional item which provides a readily accessible place to hold notes or other information.

9-376. MAINTENANCE.

9-377. The aircrewmember is responsible for maintenance of the Pilot's Mapstrap Kneeboard, Clipboard. Maintenance is limited to Visual Inspection to determine integrity of straps and fasteners. There are no authorized repairs. Boards with worn parts shall be replaced.

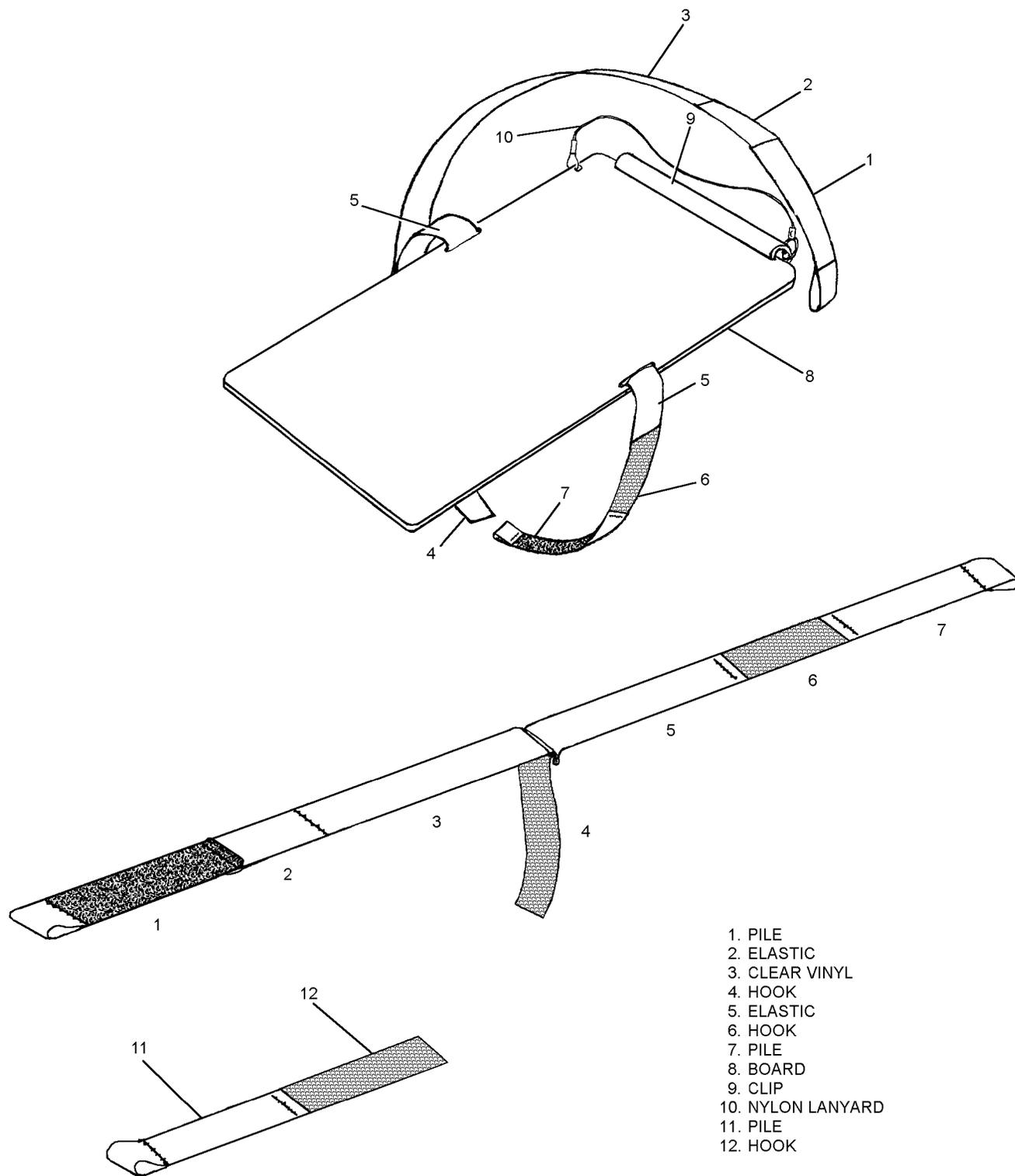


Figure 9-43. Pilot's Mapstrap Kneeboard, Clipboard

009043

Section 9-41. Mechanical Patch

9-378. DESCRIPTION.

9-379. The Mechanical Patch is a device for temporarily sealing a hole in the LRU-15/A liferaft. Two Mechanical Patches are packed in the droppable accessory container of the LRU-15/A liferaft assembly.

9-380. CONFIGURATION.

9-381. The Mechanical Patch (13202E2870-1, CAGE 81336, NIIN 00-720-8864) consists of two alloy plates. The bottom plate is fitted with a hinge and a rubber gasket which seals between the liferaft fabric and cover plate. A wing nut holds the patch in place. A handle, which facilitates positioning the patch and a nylon cord which prevents loss, are also attached. Applicable reference document is MS27826 (figure 9-44).

9-382. APPLICATION.

9-383. The Mechanical Patch is used to make emergency repairs to the LRU-15/A liferaft.

9-384. MAINTENANCE.

9-385. Maintenance of the Mechanical Patch is limited to inspection.

9-386. INSPECTION. The Mechanical Patch shall be inspected upon issue and every 90 days thereafter, or at intervals to coincide with the inspection schedule of the kit or liferaft assembly in which the Mechanical Patch is installed. To inspect the Mechanical Patch, proceed as follows:

1. Inspect for completeness of assembly.
2. Inspect for corrosion.

3. Inspect for deteriorated or cracked gasket.
4. Inspect for security of weld.
5. Inspect for severely bent or dented cover.

9-387. OPERATION. To temporarily repair a hole in a liferaft, proceed as follows:

1. Loop cord around wrist to prevent loss of Mechanical Patch.
2. Dip Mechanical Patch in water to facilitate insertion.
3. Push base through hole in fabric. If hole is too small, carefully enlarge so base can be forced through.
4. Pull base back against inner fabric surface and slide cover over screw and against outer fabric surface.
5. Adjust Mechanical Patch to cover hole completely and hold it in place.
6. Screw down wing nut firmly.

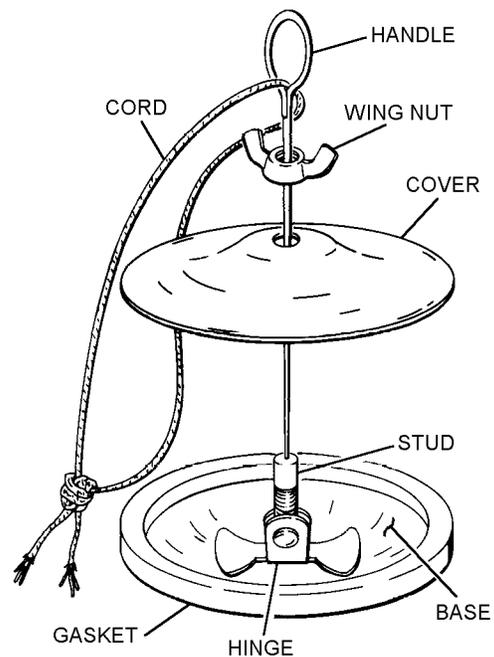


Figure 9-44. Mechanical Patch

009044

Section 9-42. Relief Systems

9-388. DESCRIPTION.

9-389. The following personal issue Relief Systems may be carried as optional items.

1. Relief Bag. This relief system is a polyethylene bag (MIL-B-83665, NIIN 00-922-9469) with absorbent sponge. It is intended for full bladder voiding. Use of the bag is explained on the yellow card that is included with the bag (figure 9-45).

2. Field Commode. This plastic pouch (NIIN 01-382-4327) with V-shaped contoured edge and zipper seal contains absorbent powder which gels urine upon contact. It is intended for full bladder voiding. Use of the field commode is explained on pouch.

3. Solid Waste Relief System. This relief system (NIIN 01-379-1341) includes a plastic bag with sealer, tissue paper, towelette, and enzyme packet. It is intended for full voiding of liquid and solid waste. Use of the solid waste relief system is explained on system container.

4. Quilted Absorbent Pad. The Quilted Absorbent Pad is a light to moderate capacity bladder relief garment which draws liquid away from the skin, disperses liquid throughout pad and locks liquid in gel to prevent leakage. The pad's foam backing provides containment and a deodorant neutralizes odor. The pad is 8 1/2 x 4 x 3/8 inches. Use of the Quilted Absorbent Pad is explained on the packaging.

NOTE

The quilted absorbent pad is available through the following open-purchase source:

CONFAB
601 Allendale Rd.
King of Prussia, PA 19406

1-800-326-6322, ext 2497
ATTN: Karen Fischer

UPC 037867-23218 "Surety Guard"
Case = 4 pkgs of 24 units = \$28.00
Min order 10 cases

5. Absorbent Undergarment. This moderate to high capacity undergarment has a non-woven fabric against the skin, moisture-proof packaging and elastic leg gathers which provide a snug fit for leakage protection. The absorbent material within the core locks in liquid and neutralizes odor-causing acids. Reusable elastic waist straps, which are adjustable up to 54 inches, secure undergarment to body. The undergarment is 22 x 6 x 1/8 inches. Use of the undergarment is explained on the packaging.

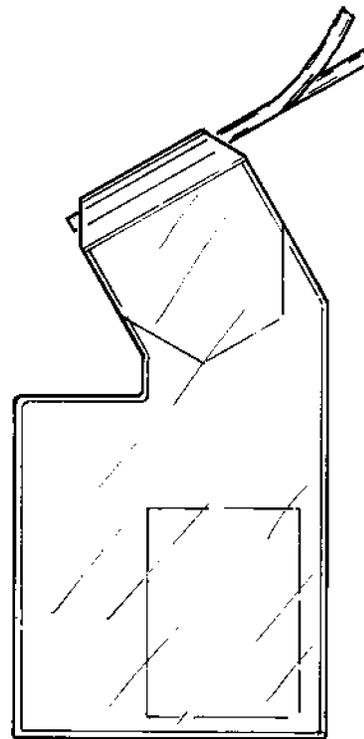


Figure 9-45. Relief Bag

009045

NOTE

Contact the distribution center closest to your location to find local carriers of the absorbent undergarment. The Absorbent Undergarment is available through the following open-purchase source:

McKesson Distribution Center
Customer Service

Arizona:
2323 N. 27th Ave
Phoenix, AZ 85009
602-272-7916

California:
1931 "G" St
Fresno, CA 93706
209-233-3251

California (Northern):
3775 Seaport Blvd W
Sacramento, CA 95691
916-372-4600

NAVAIR 13-1-6.5

California (Southern):
2121 E. Winston Rd
Anaheim, CA 92806
714-772-6060

Carolinas:
2120 Commerce Dr
Cayce, SC 29033
803-796-7965

Florida (Northern):
8226 Phillips Hwy.
Jacksonville, FL 32266
904-733-7750

Florida (Southern):
915 Chad Lane
Tampa, FL 33619
813-620-0621

Georgia:
2975 Evergreen Dr
Duluth, GA 30136
408-813-8145

Massachusetts:
9 Aegean Dr
Melhuen, MA 01844
508-685-3730

Mississippi:
2125 TV Rd
Jackson, MS 39204-7877
601-373-2622

Tennessee:
4836 Southridge Blvd
Memphis, TN 38115
901-362-1803

Texas:
1110 Hoelgen Ave
San Antonio, TX 78210
210-533-5131

Washington DC Area:
7721 Polk St
Landover, MD 20785
301-322-1100

Washington State:
710 132nd St, S.W.
Everett, WA 98204
206-743-3100

UPC 038703-03625
Case = 4 pkgs of 30 units
or
UPC 038703-03624
Case = 1 pkg of 60 units

6. Absorbent Pad. The Absorbent Pad absorbs wetness quickly and keeps liquid away from skin. Its soft, elastic gathers help provide a snug fit in the crotch area which prevents leakage. The pad is 10 x 3 x and 1/2 inch. Use of the Absorbent Pad is explained on the packaging.

NOTE

The absorbent pad is available through the following open-purchase source:

Proctor and Gamble Distribution Center
Military Customer Service Center
GH2Y-203
Cincinnati, OH 45202-3314

513-938-1080
Attn: Don Paddock

UPC 37000-68460
Case = 4 pkgs of 28 units

7. Belted Undergarment. The Belted Undergarment has flexible leg-gathers and a cupped shape design. The contoured pad provides a close comfortable fit with a thin core for moisture absorption. The undergarment is 16 1/2 x 4 1/2 x 1/4 inches. Use of the Belted Undergarment is explained on the packaging.

NOTE

The absorbent pad is available through the following open-purchase source:

Proctor and Gamble Distribution Center
Military Customer Service Center
GH2Y-203
Cincinnati, OH 45202-3314

513-983-1080
Attn: Don Paddock

UPC 37000-68456
1 pkg = 30 units
or
UPC 37000-06620
Case = 4 pkgs of 30 units

8. Freshette (figure 9-46). This reusable plastic funnel is intended for female use only. The Freshette is contoured to the female anatomy to provide a snug fit when urinating. A 5/16 inch hole is connected to the end of the funnel to transfer liquid into a containment device. In its closed configuration, the Freshette is approximately 5 3/4 x 2 1/2 x 1 1/4 inches. Use of the Freshette is explained on the packaging.

NOTE

The Freshette is available through the following open-purchase source:

Sani-Fem Company
 ATTN: Marvin Ivie
 P.O. Box 4117
 Downey, CA 90241

800-542-5580
 562-928-3435
 FAX 562-862-4373

(UPC) 745338-00001

9. Lady J Adapter. This reusable plastic funnel is intended for female use. It is contoured to the female anatomy. The other end can be placed in an approved containment device such as the Relief Bag (MIL-B-83665) (figure 9-45) or Field Combat Device for Urine Collection. Use of the Lady J Adapter is explained on the packaging.

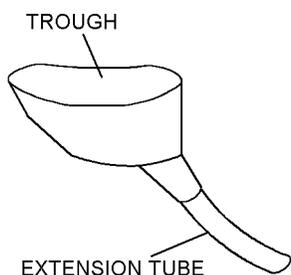


Figure 9-46. Freshette

009046

NOTE

The Lady J Adapter is available through the following open-purchase source:

Sporty's Pilot Shop
 Clermont County Airport
 Batavia, OH 45103-9747

800-543-8633
 FAX 513-735-9200

6471A

9-390. MAINTENANCE.

9-391. Maintenance of the Relief Systems is limited to Place-In-Service Inspection. Individual aircrew is responsible for maintenance after place-in-service. Maintenance shall be in accordance with manufacturers' instructions. Disposal of Relief Systems shall be in accordance with plastic waste disposal instructions. Treat used Relief Systems in the same manner as food contaminated plastic waste.

9-392. PLACE-IN-SERVICE INSPECTION. Place-In-Service inspection shall be a visual inspection for the following:

1. Holes
2. Tears/rips
3. Deterioration in item packaging

NOTE

If any discrepancies are found, dispose of item in accordance with paragraph 9-390 and replace the package.

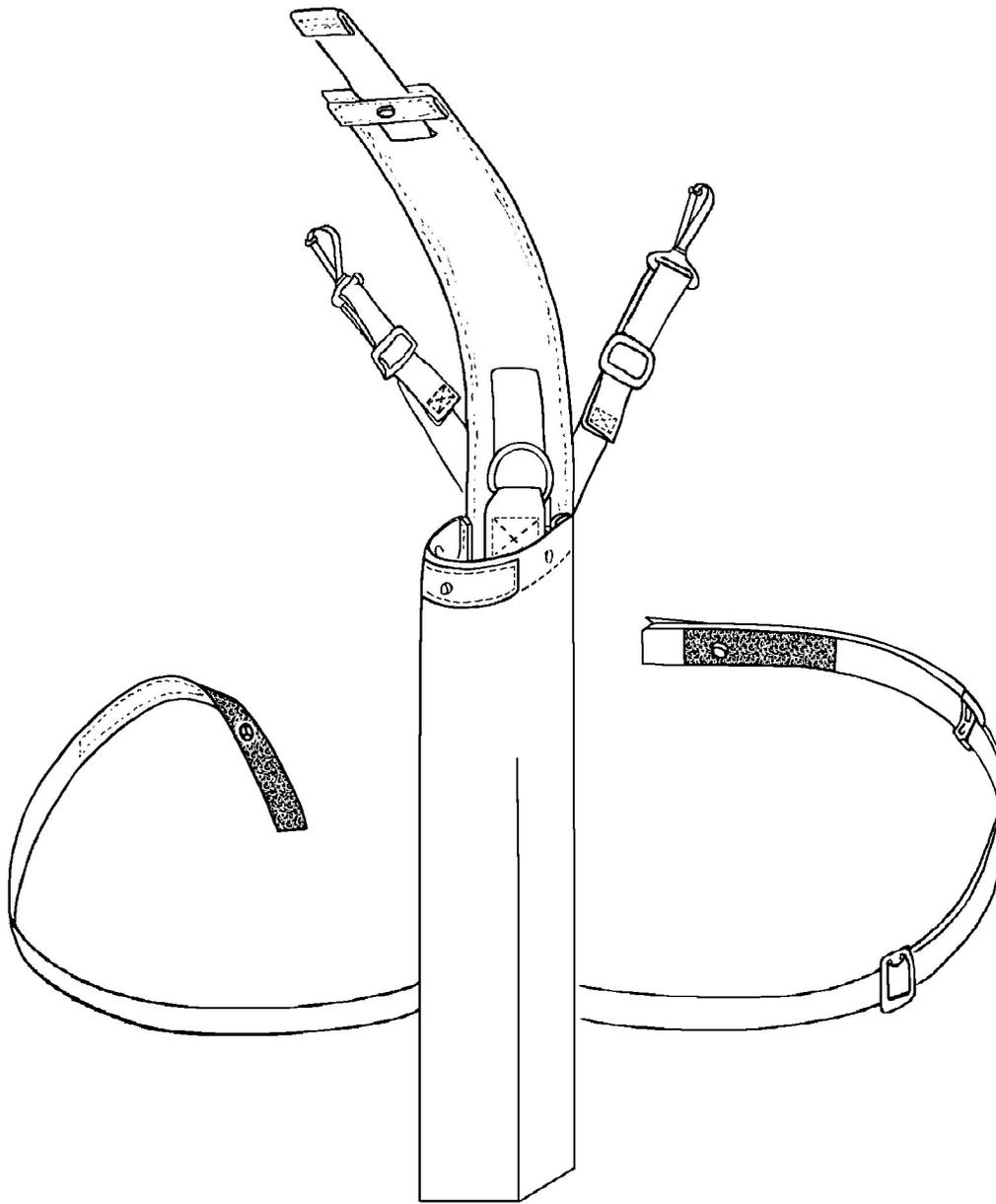
9-393. SHELF LIFE. The shelf life of the Relief Systems is indefinite as long as the packaging passes Visual Inspection and there are no signs of exterior damage or deterioration.

Section 9-43. HEED Holster

9-394. FABRICATION OF HELICOPTER EMERGENCY EGRESS DEVICE HOLSTER.

9-395. Instructions to fabricate a holster (figure 9-47, sheet 1) for using the Helicopter Emergency Egress Device

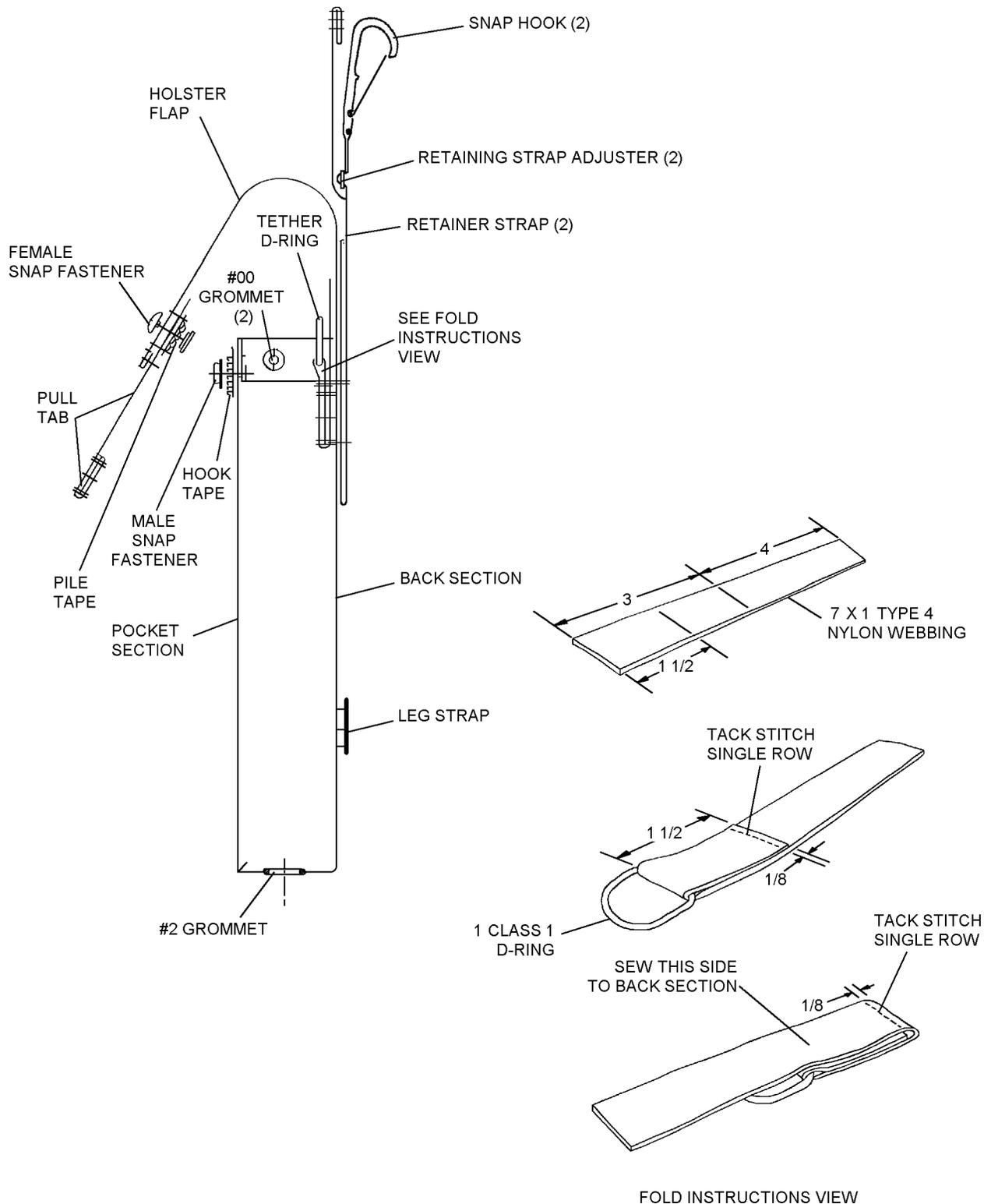
(HEED) with the LPU-21/P Life Preserver are given here. In addition, optional instructions to fabricate a HEED Holster Belt (figure 9-51) for use by Search and Rescue (SAR) swimmers are also provided. Proceed as follows:



FRONT VIEW

Figure 9-47. HEED Holster Assembly (Sheet 1 of 3)

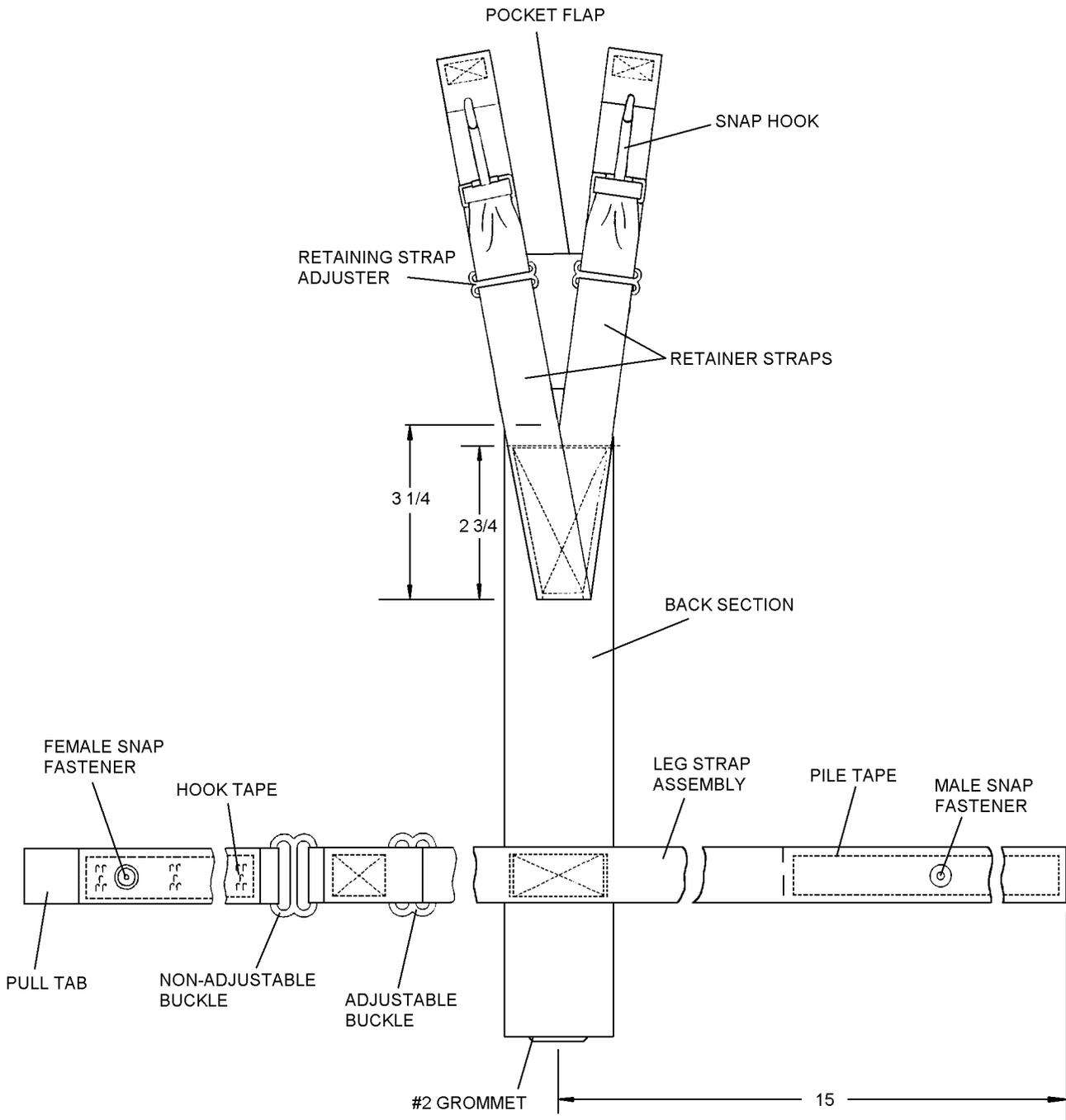
00904701



ASSEMBLED HOLSTER - SIDE SECTION VIEW

Figure 9-47. HEED Holster Assembly (Sheet 2 of 3)

00904702



ASSEMBLED HOLSTER - BACK VIEW

Figure 9-47. HEED Holster Assembly (Sheet 3 of 3)

00904703

Materials Required		
Quantity	Description	Reference Number
AR	Thread, Size E Type I, Class A	V-T-295 NIIN 00-616-0079
12 x 24 inches	Cloth, Coated, Type II, Class 2 Green	MIL-C-20696 NIIN 00-616-0022
1	Grommet, #2	MS20230-B2 NIIN 00-231-6590
2	Grommet, #00	MS20230-B20 NIIN 00-291-8579
AR	Nylon Webbing, Type IV	MIL-T-5038 NIIN 00-261-8579
AR	Fastener Tape Pile, 1-inch Class 1	MIL-F-21840 NIIN 00-106-5974 CAGE 81349
AR	Fastener Tape Hook, 1-inch Class 1 Type II	MIL-F-21840 NIIN 00-106-5973 CAGE 81349
4	Buckle, Slide Adjustment	MS51940-95 NIIN 00-664-6395 CAGE 96906
3	Snap Hook	341 NIIN 00-798-4842 CAGE 74786
39 inches	Nylon Cord, Type 1A	MIL-C-5040 NIIN 00-292-9920
2	Pull-The-Dot Snap Fastener Assembly (Black, 3-Way Lock)	MS27983
	Cap	MS27983-1 NIIN 00-891-9073
	Socket	MS27983-2 NIIN 00-893-6243
	Stud	MS27983-3 NIIN 00-276-4908
	Post	MS27983-4 NIIN 00-276-4978
1	D-ring 1-inch Class 1	MIL-R-3390F NIIN 00-260-1415
AR	Thread, Size E Type I, Class A	V-T-295 NIIN 00-616-0079
AR	Nylon Webbing 1 3/4-inch, Class 1 Type VIII	MIL-W-4088 NIIN 00-261-8585

Materials Required (Cont)		
Quantity	Description	Reference Number
9 inches	Nylon Webbing Type IV	MIL-T-5038 NIIN 00-261-8579
4 inches	Fastener Tape Pile, 2-inch Class 1	MIL-F-21840 NIIN 00-926-4930 CAGE 81349
4 inches	Fastener Tape Hook, 2-inch Class 1 Type II	MIL-F-21840 NIIN 00-926-4931 CAGE 81349
1	Adapter, Special	MS70101 NIIN 01-050-7680
2	D-ring, 1-inch Class 1	MIL-R-3390F NIIN 00-260-1415

1. Sear all cut nylon webbing and cord ends to prevent fraying. Do not form sharp edges. Unless otherwise specified, all machine stitching shall be in accordance with ASTM-D-6193, Type 301 lockstitch, 7 to 9 stitches per inch, back stitch 1/2 inch minimum.

9-396. BACK SECTION ASSEMBLY. To fabricate the Back Section, proceed as follows:

1. Cut laminated cloth to form 22 3/4 inch x 2 3/4 inch back section of the holster (figure 9-48). Note 3/8 inch allowance on all four sides. Lay out with dull side up. Mark position of the #2 grommet by starting at center of bottom of back section and measuring up 1 3/8 inches along centerline. Center and set #2 grommet.

2. Cut a 7-inch piece of Type IV webbing for tether D-ring assembly (figure 9-47, sheet 2). Measure and mark in 1 1/2 inches and 3 inches from one end. Reeve D-ring bar 1/2-inch mark, fold short end over the 3-inch mark. Tack with single row of stitches 1/8 inch in from short end. Fold long end of webbing over on top of short end, tack with single row of stitches 1/8 inch in from fold. Turn assembly over.

3. Position folded tether D-ring assembly on long centerline of back section, with long free end of webbing flat against the back section and facing away from #2 grommet. Center of D-ring bar shall be approximately 1 1/2 inches from center of #2 grommet (figure 9-48). Sew in position starting 1/8 inch in from fold with 1 x 3/4-inch cross box stitch and backstitch.

4. Cut 30 inches of 1-inch Type IV webbing for retaining straps. Fold in half forming two 15-inch legs and mark fold. Lay folded webbing flat on table. Spread webbing apart to form the two legs of a "V". Inside of webbing "V" to fold should measure 3 1/4 inches (figure 9-47, sheet 3).

NAVAIR 13-1-6.5

5. Turn back section over so tether D-ring is underneath. Position marked fold of retaining straps 9 inches from center of #2 grommet with the legs facing away from grommet. Ensure legs of "V" are equally spaced on long centerline of back section (figure 9-47, sheet 3). Sew in position 1/8 inch in all around with 7/8 x 3/4 x 1 3/4-inch cross boxstitch and backstitch. Add extra row of stitches along 1 3/4 inch dimension and backstitch.

6. Cut 28 inches of 1-inch Type IV webbing for adjustable webbing part of leg strap assembly (figure 9-49). Fold webbing 2 inches in from one end and make fold. Reeve webbing end around middle adjuster of first buckle and position middle adjuster on mark. Sew 1/8 inch in a 3/4 x 1 1/4-inch cross box stitch and backstitch.

7. Reeve free end of adjustable webbing through one end of second adjustment buckle (the other side is left open), then reeve approximately 12 inches of free end back through both openings of first buckle.

8. Cut 13 inches of 1-inch Type IV webbing for non-adjustable part of leg strap (figure 9-49). Reeve through open end of second adjustment buckle and fold in half. Turn leg strap assembly over so the bars on the first adjustment buckle are under webbing facing down. Position 5 x 1-inch hook tape 1 inch in from ends of doubled webbing. Sew in position 1/8 inch in all around using 3/4 x 5 3/4-inch box stitch and backstitch. Neatly trim excess. A security snap fastener will be added through the webbing and hook tape at aircrewmember's fitting.

9. Turn leg strap assembly over so bars on first adjustment buckle are now facing up. On end of leg strap assembly opposite the hook tape end, position 8 x 1-inch pile tape even with end of webbing. Sew in position 1/8 inch in all around using 3/4 x 7 3/4-inch box stitch and backstitch. A security snap fastener will be added through the webbing and pile tape at aircrewmember's fitting.

10. Mark a perpendicular line 15 inches in from end of pile tape and webbing. Position leg strap assembly on same side of back section assembly as the retaining straps (figure 9-47, sheet 3). Center the 1.5 inch perpendicular mark along long centerline of back section assembly with hook tape on leg strap on left side facing up. Center leg strap 4 inches up from center of #2 grommet (figure 9-48). Ensure leg strap is perpendicular to holster. Sew in position 1/8 inch in with a 3/4 x 1 3/4-inch cross box stitch and backstitch.

9-397. POCKET SECTION ASSEMBLY. To fabricate the Pocket Section Assembly, proceed as follows:

1. Cut laminated cloth to form 12 3/8 x 6 3/4 inch pocket section of holster (figure 9-50). Not 3/8 inch hem allowance on all four sides. Lay out with dull side up. Fold top 1 inch down (cloth will now be 11 3/8 inches high) and stitch 1 row 1/8 inch in from fold and a second row 7/8 inch from fold to form hem.

2. Turn pocket section over to have smooth side up. Position top edge of 1 x 2-inch hook tape 1/4 inch down from hemmed edge at center of width. Sew 1/8 inch in all around from edge to form 3/4 x 1 3/4-inch box stitch and backstitch.

3. Punch hole for snap fastener in center of hook tape. Push eyelet through hole from hemmed side. Position stud against hook tape side. Set male snap fastener.

4. Mark two positions for two #00 grommets, 1/2 inch down from top of hemmed edge and 1 1/2 inch in from each side of cut cloth. Punch holes and set #00 grommets.

9-398. FINAL HOLSTER ASSEMBLY. To fabricate the Final Holster Assembly, proceed as follows:

NOTE

Use care in sewing back and pocket sections together. Back and pocket sections will be sewn together inside-out with retaining straps and leg strap inside.

1. Lay out back section with tether D-ring facing down. Center pocket section on top of back section, with pocket section hook tape away from #2 grommet and facing down towards back section. Match the bottom cut edges of back and pocket sections. The bottom three edges and two sides of back and pocket sections will be sewn together forming a 3/8-inch hem. Ensuring leg and retaining straps are inside hem away from stitches. Sew the 3/8-inch hem 1/4 inch in and again 1/16 inch in from cut edges of back and pocket sections. Backstitch each stitch.

2. Turn holster right-side out so webbing is on outside (figure 9-47, sheet 3).

3. Lay out holster with straps on table. Sew 3/8-inch hem 3/16 inch in on both sides of free end of back section, forming holster flap. Continue stitching flap hems for 3/4 inch onto side seams of back and pocket sections for reinforcement, and backstitch. After sewing both sides, sew 3/8-inch hem across width of free end of holster flap.

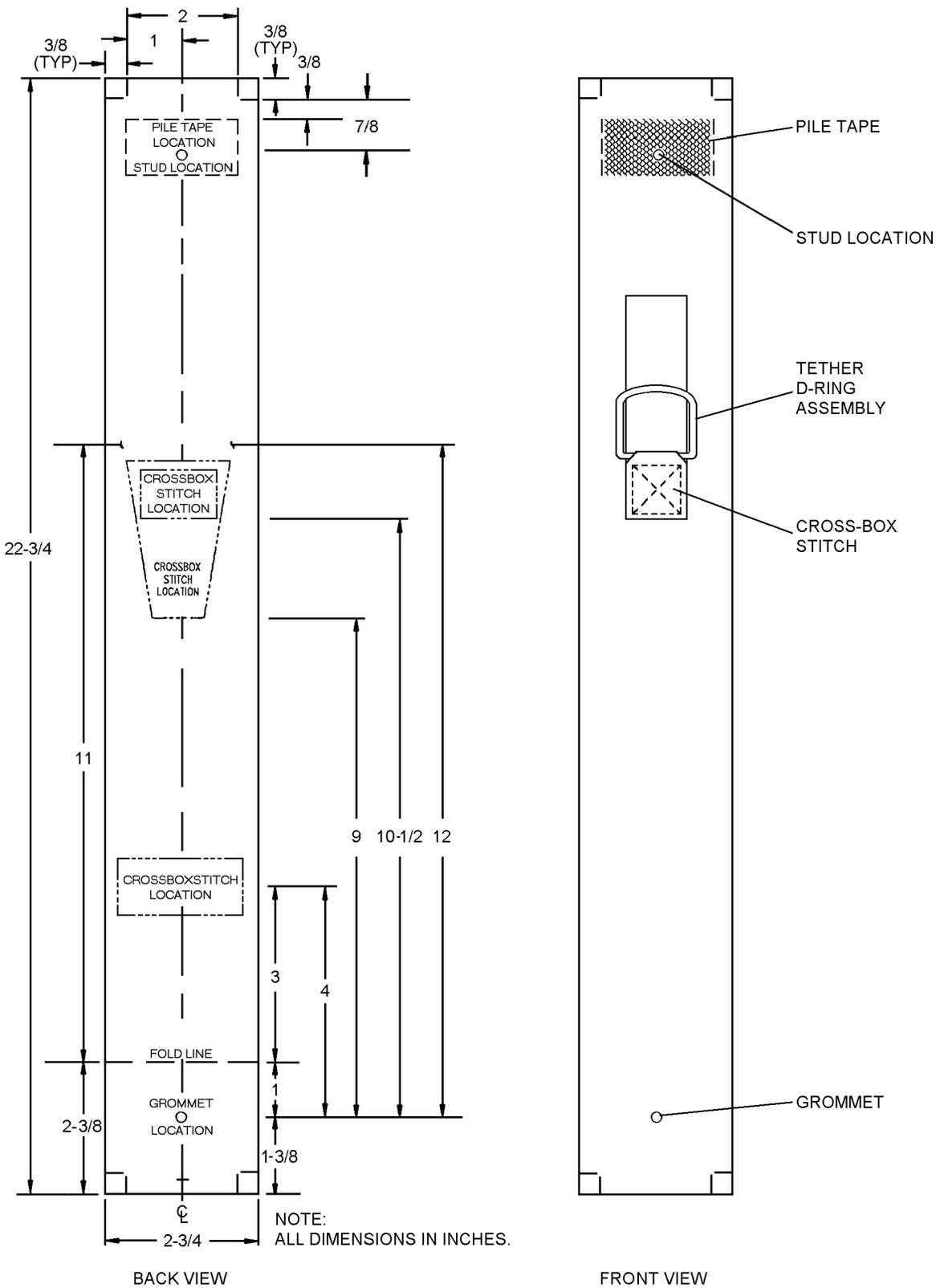
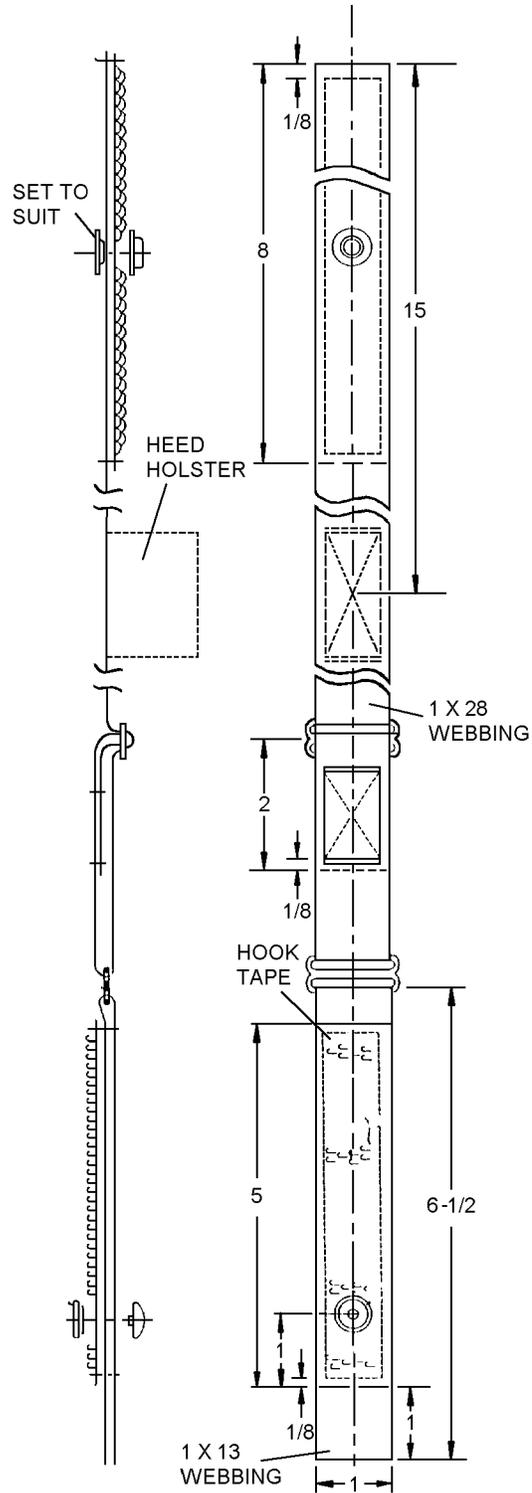


Figure 9-48. Back Section Assembly Plan View

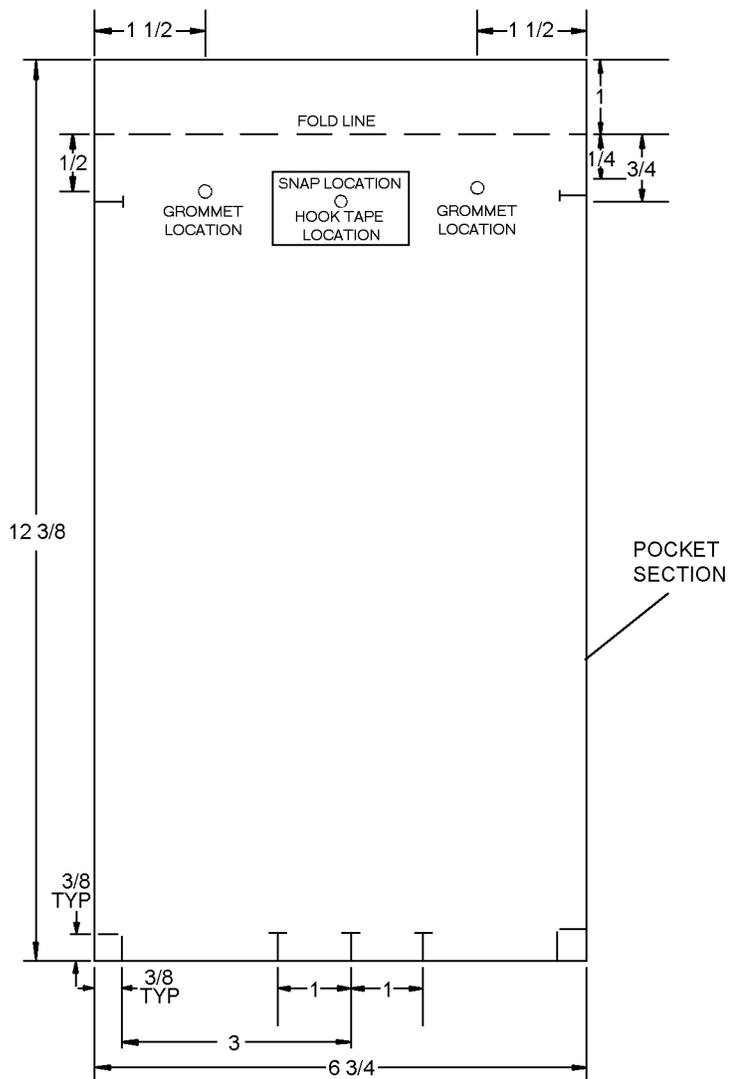
009048



NOTE ALL DIMENSIONS IN INCHES

Figure 9-49. Leg Strap Assembly – Flat and Edge View

009049



NOTE: ALL DIMENSIONS IN INCHES.

Figure 9-50. Pocket Section – Assembly Plan View

009050

NAVAIR 13-1-6.5

4. Cut 6 inches of 1-inch Type IV webbing for pocket flap pull tab. Fold over end of webbing 1 inch two times, to form a triple thick pull tab (figure 9-47, sheet 2) with a free end. Sew 1/8 inch in all around a 3/4 x 1 3/4-inch box stitch through the triple thickness. Position the free end of the pull tab so it lays 1 inch over the inside (the dull side) of the pocket flap along the centerline. Sew pull tab on during next step.

5. Cut a 1 x 2 inch length of pile tape. Position pile tape to cover free end of pull tab webbing. Pile tape should cross the full width of the pocket flap. Edge of pile tape shall be 3/8 inch from hemmed edge of pocket flap (figure 9-47, sheet 1). With pull tab under pile tape, sew 1/8 inch in all around pile tape using 3/4 x 1 3/4-inch box stitch and backstitch.

6. Punch hole for snap fastener through center of flap pile tape/pull tab webbing. Position snap fastener cap through fabric so button protrudes through pile tape. Position socket on pile tape side. Set female snap fastener.

7. Reeve retaining strap through both sides of adjustment buckle. Reeve one snap hook onto each retaining strap, making sure hooks face away from holster. Reeve each strap back through adjustment buckle. Webbing loops on buckles should face front of holster.

8. Fold each retaining strap end back 1 inch two times and sew 1/8 inch in from fold 3/4 x 1 1/2-inch crossbox stitch and backstitch.

9-399. HOLSTER FITTING. To fit the HEED Holster to the aircrewmember, proceed as follows:

1. Have aircrewmember don SV-2B/LPU-21/P. Remove HEED from SV-2B. Searcut as a tether 39-inch \pm 1-inch type 1A cord. Secure HEED to holster with tether by tying a bowline knot around the bottle neck at one end and a second bowline knot to the snap-hook eyelet at the other. Secure the snap-hook to the D-ring at the base of the holster flap. Install HEED in holster.

NOTE

Refer to NAVAIR 13-1-6.7 for fabrication of HEED tether line Quick Disconnect Assembly. Subject assembly is designed for quick disconnect breakaway from SV-2B Survival Vest in case of entanglement during emergency egress.

2. Fake cord in approximately 3 inch bights. Secure with a rubber band and tuck inside the holster. Secure pocket flap.

3. Mount holster snap hooks onto life preserver waist lobe D-rings. Adjust retaining strap and leg strap adjust-

ment buckles for aircrewmember comfort and access to HEED. Mark the position of the end of the pull tab end on leg strap for locating and setting a security snap fastener.

4. Have aircrewmember doff holster. Set a snap fastener 2 inches from the pull tab end centered in the hook/webbing, with the socket against the hook tape. Set cap/socket. Position pull tab end at the mark made during adjustment and mark position of cap/socket on the pile/webbing. Center and set the eyelet/stud at the new mark with the stud against the pile tape.

5. Mark holster assembly identification with indelible black ink and record issuance of holster.

9-400. SAR BELT FABRICATION. The following procedure is for fabricating the SAR swimmer's belt to carry the HEED Holster.

1. Cut 50 inch of 1 3/4-inch webbing for SAR belt for HEED Holster (figure 9-51). Remove end of webbing through free end of adjustable buckle. Fold back 3 inches and sew with 2 1/4 x 1 1/2-inch crossbox stitch.

2. Lay belt horizontal with stitched fold facing up and buckle to the right. From folded edge of webbing, measure and mark webbing at 6 1/2 inches and 11 1/2 inches.

3. Cut 4 1/2 inches of 1-inch webbing. Reeve D-ring onto webbing and fold webbing in half. Position webbing on top of belt, with the cut ends of webbing even with top edge of belt and the D-ring at the bottom. Position right hand edge of folded webbing at the 6 1/2 inch mark (figure 9-51). Ensure webbing and the D-ring are perpendicular. Sew 1/8 inch in all around with 3/4 x 1 1/2-inch crossbox stitch and backstitch.

4. Repeat previous step, sewing second webbing and D-ring at the 11 1/2-inch mark.

5. Have SAR aircrewmember don belt with D-rings on bottom. Adjust for best fit of belt and hold belt.

6. Mark free end of belt 6 inches past end of buckle. Have aircrewmember doff belt. Sear cutoff excess at mark.

7. Position 1 3/4 x 4-inch pile tape even with free end, on same side of belt as the D-rings. Sew in position 1/8 inch in all around a 1 1/2 x 3 3/4-inch box stitch and backstitch. Neatly trim excess.

8. Measure 12 inches from free end and mark, on same side of belt as the D-rings and pile tape. Position 1 3/4 x 4-inch hook tape, starting from mark, towards buckle. Sew in position 1/8 inch in all around a 1 1/2 x 3 3/4-inch box stitch and backstitch. Neatly trim excess.

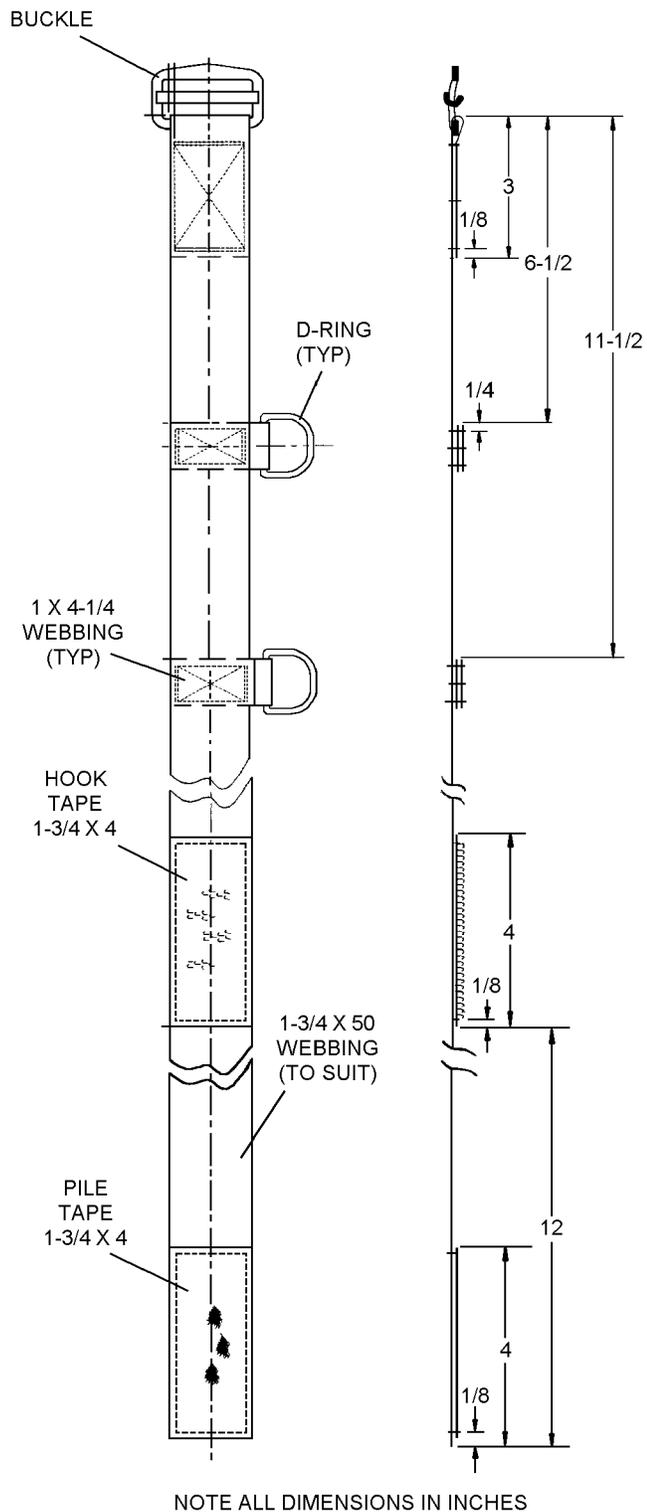


Figure 9-51. SAR Belt Assembly – Flat and Edge View

009051

NAVAIR 13-1-6.5

9. Obtain HEED and HEED Holster. Searcut as a tether 39 inches \pm 1 inch type 1A cord. Secure HEED to holster with tether by tying a bowline knot around the bottle neck at one end and a second bowline knot to the snap-hook eyelet at the other. Secure the snap-hook to the D-ring at the base of the holster flap. Install HEED in holster.

10. Fake cord in approximately 3 inches bights. Secure with a rubber band and tuck inside the holster. Secure pocket flap.

11. Have SAR aircrewmember don belt. Mount holster snap hooks onto belt D-rings. Adjust retaining strap and leg strap adjustment buckles for aircrewmember comfort and access to HEED.

12. Mark the position of the end of the HEED holster leg strap pull tab end for locating and setting a security snap fastener.

13. Have aircrewmember doff holster. Set a snap fastener 2 inches from the pull tab end centered in the hook/webbing, with the socket against the hook tape. Set cap/socket. Position pull tab end at the mark made during adjustment and mark position of cap/socket on the pile/webbing. Center and set the eyelet/stud at the new mark with the stud against the pile tape.

14. Mark belt and/or holster assembly identification with indelible black ink and record issuance of belt and/or holster.

Section 9-44. Pistol Holster, Leather (Optional Equipment)

9-401. DESCRIPTION.

9-402. The Pistol Holster, Leather (P/N 7791527, NIIN 00-973-2353) is optional equipment. The pistol holster is designed to carry the standard issue 9mm pistol. The holster has an attached adjustable shoulder and chest strap. It is designed to be worn under the left arm for a right handed release. It comes in black leather with black hardware.

9-403. CONFIGURATION.

9-404. The pistol holster (figure 9-52) has a built-in adjustable shoulder and chest strap. The holster pocket which houses the pistol has a strap to secure the pistol and a strap to secure it to survival equipment.

9-405. APPLICATION.

9-406. The holster provides an optional means of carrying a 9mm pistol. The holster is authorized for use in all aircrew flight equipment configurations for rotary, fixed wing non-ejection and TACAIR communities. Procedures for donning the pistol holster are identified in the applicable maintenance manual for the specific aircrewmembers flight equipment configuration.

9-407. MAINTENANCE.

9-408. Maintenance shall be performed at organizational level and is limited to preflight and special inspections and repair of the leather tie.

NOTE

Failure of the pistol holster during Place-In-Service Inspection renders the item non-RFI and shall be reported in accordance with OPNAVINST 4790.2 Series. Record all maintenance actions in accordance with OPNAVINST 4790.2 Series.

9-409. PREFLIGHT INSPECTION. The Preflight Inspection is limited to a visual inspection of the assembly for security of straps, snaps, hardware and cracks in leather. Discrepancies shall be reported to maintenance personnel.

9-410. SPECIAL INSPECTION. A Special Inspection shall be performed at time of place-in-service and at intervals not to exceed 80 days. Refer to paragraph 9-413 for extended storage of pistol holster. To perform the Special Inspection, proceed as follows:



Do not treat the leather with oil based products. These products will cause damage to flight gear and are hazardous around oxygen equipment.

1. Perform a visual inspection of assembly. Check for security of snaps and hardware.

2. Inspect for deterioration, contamination and cracks in leather.

3. Inspect leather adjusting ties, if necessary replace in accordance with paragraph 9-411.

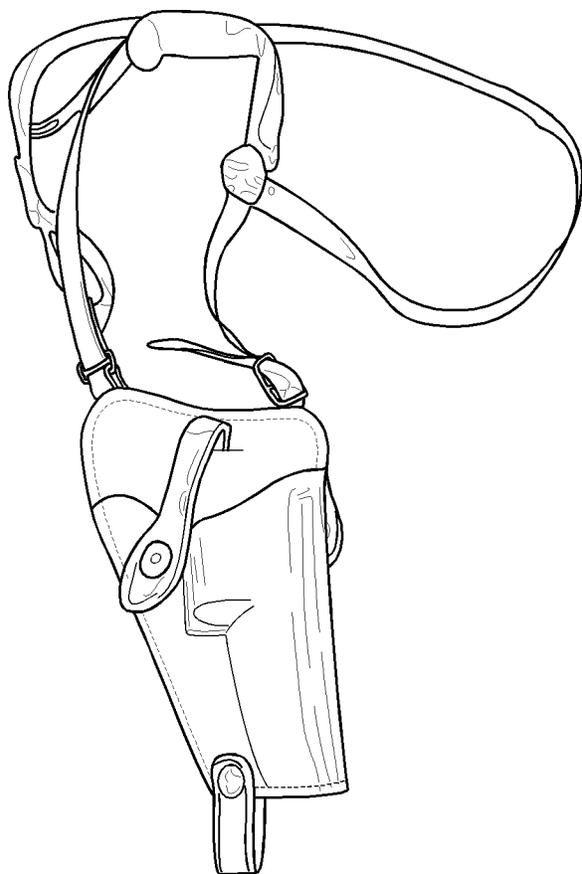


Figure 9-52. Pistol Holster, Leather

009052

9-411. REPAIR. Repairs are limited to the replacement of leather ties. All other discrepancies require replacement of pistol holster. To repair the leather ties, proceed as follows:

Materials Required		
Quantity	Description	Reference Number
7 Inches	Nylon Cord, Type III	NIIN 00-240-2146

1. Remove broken leather tie.
2. Remove core strands from Type III nylon cord and sear ends.
3. Route the Type III in the same manner as the leather tie and tie off using a square knot. Secure ends together with an overhand knot.

9-412. STOWAGE.

9-413. When holster is no longer being used, it may be taken out of service and stored in a cool dry place away from direct sunlight. Do not store in extreme hot or cold environments for long periods of time. This will cause deterioration of leather.

Section 9-45. Manual Reverse Osmosis Desalinators

9-414. DESCRIPTION.

9-415. The Manual Reverse Osmosis Desalinator (MROD) is a hand-operated apparatus designed to convert seawater or brackish water into potable (drinkable) water. The non-potable water is drawn into the device and forced under high pressure through a semi-permeable membrane, which does not allow salt molecules, viruses or bacteria to pass through.

NOTE

The amount of bagged water currently stored in life raft accessory containers will be reduced from 10 oz to 4 oz per person, with the addition of the MROD device.

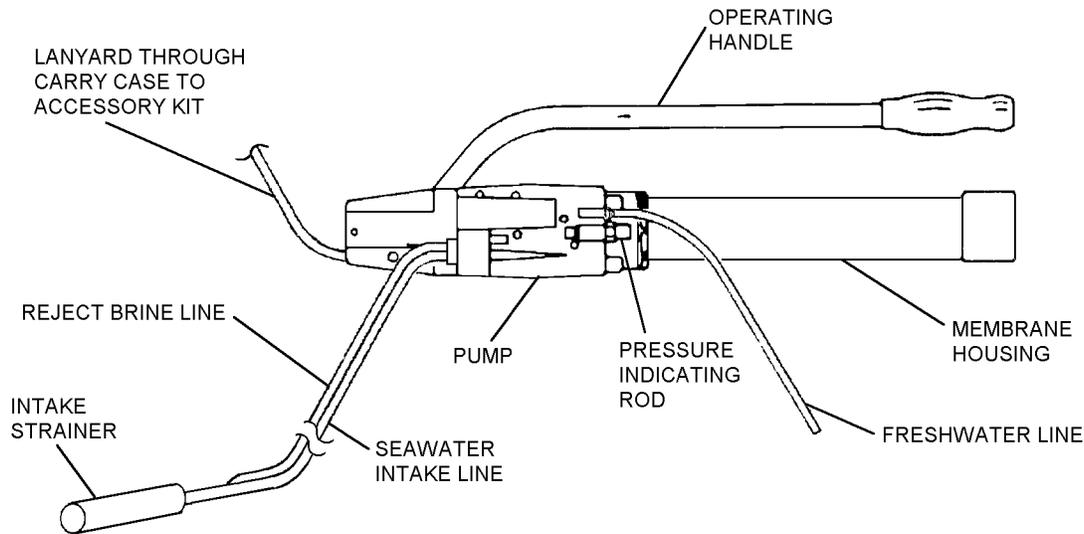
9-416. CONFIGURATION.

9-417. The Manual Reverse Osmosis Desalinator (CAGE OBJ61, NIIN 01-313-6086) consists of a cylin-

dricl tube containing the semi-permeable membrane, an energy recovery pump, an operating handle, lanyard, and intake, reject and freshwater output hoses (figure 9-53). The MROD includes a nylon carry case with handle so the unit is portable in the event of a land based emergency.

9-418. APPLICATION.

9-419. The MROD is intended to provide downed air-crewmembers with drinkable water from a non-potable water source such as seawater or brackish water. The MROD is designed for one man operation and is capable of delivering 1.4 gallons/hr. of fresh water. The primary application is aviation liferafts. The MROD is stored in the accessory kit of all U.S. Navy multi-place liferafts and is tethered to the accessory kit case through the dual slider opening in its carry case.



009053

Figure 9-53. Manual Reverse Osmosis Desalinator

9-420. MAINTENANCE.

9-421. Maintenance shall be accomplished at Intermediate Level or above. The MROD shall be forwarded to the manufacturer for the scheduled 4 year and 8 year overhaul inspection. Costs shall be the responsibility of the local command. Refer to paragraph 9-424.

9-422. INSPECTION. The MROD shall be inspected at time of Place-In-Service, at intervals to coincide with the inspection cycle of the liferaft in which it is installed, and every four and eight years at the manufacturer for rework and overhaul. The four-year and eight-year expiration dates begin from the Date of Manufacture or Rework date. To inspect the MROD, proceed as follows:

NOTE

If the four-year or eight-year cycle comes due during a repack cycle, the MROD may remain in service until the next life raft inspection.

Refer to NAVAIR 13-1-6.1-1 for quantity of water required to be packed in addition to the MROD.

1. Inspect all hoses for holes, cracks, kinks, and obstructions.
2. Ensure all hoses are securely attached to the membrane housing and intake strainer.
3. Exercise operating handle two full cycles to ensure it is secure and moves freely.

4. Inspect membrane housing for major dents or cracks.

5. Inspect lanyard for cuts and frays. Remove snap hook and tie an overhand knot in end of lanyard. If lanyard is damaged, replace with a 48-inch length of Type III nylon cord.

6. Inspect carry case for damage.

7. Remove Air Force T. O. manual and warranty label. Discard or retain for local reference.

9-423. PACKING PROCEDURES. Place MROD in carrying case and fake hoses. Run lanyard out the corner of the carrying case and close dual slide fastener around lanyard. Attach the other end of the lanyard to the accessory container as directed by NAVAIR 13-1-6.1-1.

9-424. REPAIR.

NOTE

Local repairs are not authorized on the MROD. Unit must be replaced or forwarded to manufacturer for repair. Shipping and repair costs shall be the responsibility of local command.

Katadyn North America Inc.
9850 N 51st Ave
Plymouth, MN 55442
(800) 755-6701

9-425. Repairs on the carrying case are limited to the patching of minor tears, and the stitching of broken or frayed stitches. Broken plastic fasteners can be removed provided slide fastener is operable. Unlimited repairs are authorized. There is currently no replacement for the carrying case.

Section 9-46. Passenger Helicopter Aircrew Breathing Device System

9-426. GENERAL.

9-427. The Passenger Helicopter Aircrew Breathing Device (PHABD) System is authorized for use on the LPU-32/P, LPP-1/1A and Pouch Type Preserver (PTP) for Marine troop passengers during flights over water. The Passenger Helicopter Aircrew Breathing Device System consists of a holster (figure 9-54) and a SRU-40A/P or SRU-40B/P Helicopter Aircrew Breathing Device (HABD). The system provides breathable air to assist a passenger in the event of a mishap over water. The holster consists of a sleeve that securely holds the HABD. The sleeve includes snaps which allow the holster to be easily fastened to the life preserver.



Training in the function and use of the Helicopter Aircrew Breathing Device (HABD) shall be accomplished and documented prior to use.

9-428. FABRICATION OF PHABD HOLSTER.

NOTE

The quantity of holsters for initial outfitting will be manufactured under contract and delivered to predesignated MEUs. All future holsters will be locally manufactured in accordance with paragraph 9-430.

9-429. PHABD holsters shall be fabricated at intermediate level maintenance facilities. To fabricate the PHABD holster, proceed as follows:

Materials Required		
Quantity	Description	Reference Number
AR	Thread, Nylon, Size E	V-T-295 NIIN 00-616-0079
AR	Nylon, Vinyl Coated	MIL-C-20696 NIIN 00-616-0022
6 inches	Fastener Tape, Hook, 1 inch	MIL-F-21840 NIIN 00-106-5973
6 inches	Fastener Tape, Pile, 1 inch	MIL-F-21840 NIIN 00-106-5974

Materials Required (Cont)

Quantity	Description	Reference Number
2 inches	Fastener Tape, Hook, 2 inch	MIL-F-21840 NIIN 00-450-9837
2 inches	Fastener Tape, Pile, 2 inch	MIL-F-21840 NIIN 00-405-2265
18 inches	Webbing, Textile, 1 inch, Type 17	MIL-W-4088 NIIN 00-260-6906
3	Caps	MS27983-1 NIIN 00-891-9073
3	Sockets	MS27983-2 NIIN 00-945-2577
3	Studs	MS27983-3 NIIN 00-276-4908
3	Eyelets	MS27983-4 NIIN 00-276-4978
1	Strap, Tie Down	MIL-S-23190 NIIN 00-111-3208
1	Grommets, Size 00	MS20230B20 NIIN 00-291-0302
1	Helicopter Aircrew Breathing Device (HABD) SRU-40A/P or SRU-40B/P	1586AS301-2 or 1586AS301-3

9-430. FABRICATION OF THE HOLSTER BACK PANEL. To fabricate the holster back panel (figure 9-55), proceed as follows:

NOTE

Seal all cut edges of nylon webbing to prevent fraying. Do not form sharp edges. Unless otherwise specified, all machine stitching shall be in accordance with ASTM-D-6193, type 301 lockstitch, 8 to 10 stitches per inch, back stitch 3/4 inch minimum. All hems will be single fold unless otherwise specified. All stitching shall be 1/8 inch from edge unless otherwise specified.

1. Measure and cut a 2 1/2 x 11-inch piece of vinyl coated nylon.

2. On both of the 11-inch sides and on one of the 2 1/2-inch sides, single fold the edges by 3/8 inch and sew in place with a single row of stitches.

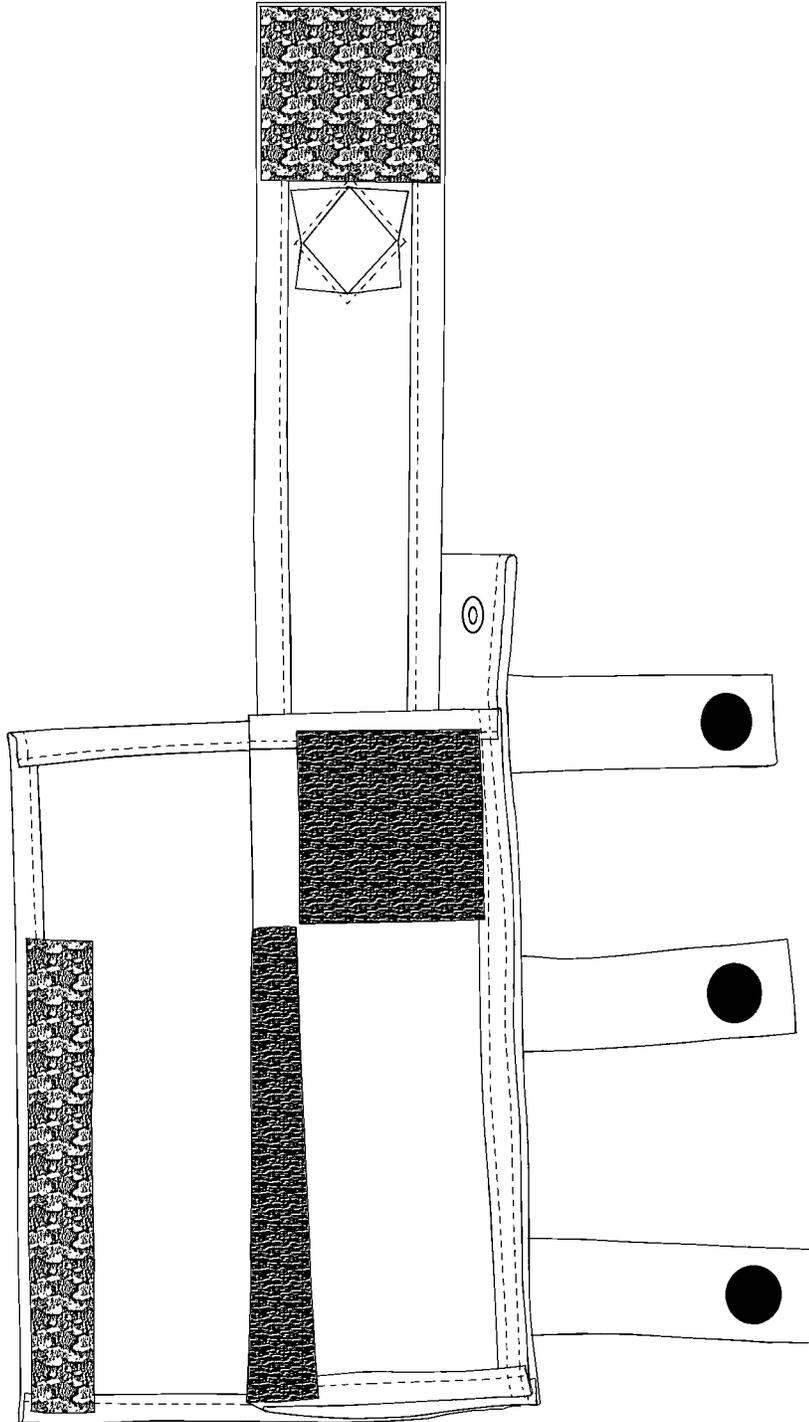
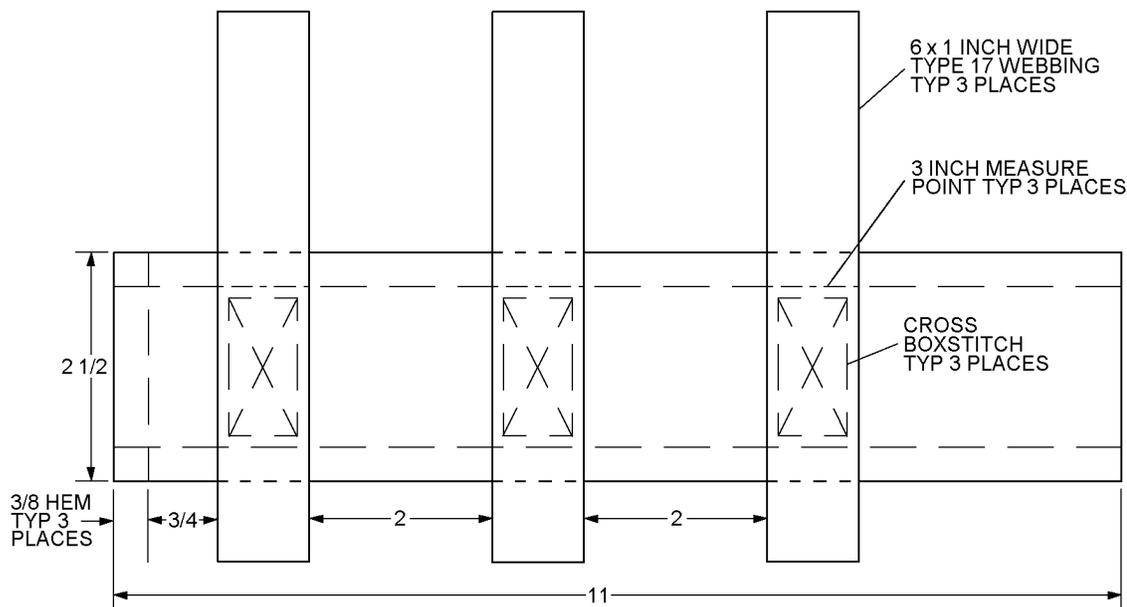


Figure 9-54. Passenger Helicopter Aircrew Breathing Device (PHABD) Holster

009054



009055

Figure 9-55. Holster Back Panel

3. Turn back panel over so that the hem edges are face down and the unsewn side is on the right. Starting from the left side, measure and mark the back panel along the top and bottom sides at 3/4 inch, 1 3/4 inches, 3 3/4 inches, 4 3/4 inches, 6 3/4 inches, and 7 3/4 inches. Draw vertical placement lines by connecting each corresponding top and bottom mark.

4. Measure and cut three, 6-inch lengths of 1-inch wide Type 17 webbing.

5. Mark the 3-inch middle of each length of webbing with a line.

6. Keeping the unsewn side of the back panel to the right, place the 6-inch lengths of webbing on the back panel between the 3/4 inch and 1 3/4 inch, the 3 3/4 inch and 4 3/4 inch, and the 6 3/4 inch and 7 3/4 inch vertical placement lines so that the 3 inch center line on the webbing is even with the top edge of the back panel. Sew the webbings in place with a centered 3/4 x 1 1/4-inch cross boxstitch.

9-431. FABRICATION OF THE BOTTLE/HOSE PANEL To fabricate the bottle/hose panel (figure 9-56), proceed as follows:

1. Cut an 8 x 13-inch piece of vinyl coated nylon fabric.

2. Single fold the edges by 3/8 inch and sew a hem on all four sides of the fabric.

3. Turn fabric over so that the hemmed edges are facing down and the shorter sides are on the left and right. Measure and mark the top and bottom sides at their 6 1/8-inch centers. Draw a line connecting the 6 1/8-inch marks to create a fold line.

4. Measure and mark regulator flap placement marks at 1/2 inch and 2 5/8 inches to the left of the center fold line along the topside of the fabric.

5. Turn fabric over so that the side with the fold line and regulator flap placement marks are face down, and the edge with the regulator flap placement marks is now the top right edge. Measure and mark 5 inches up from the bottom left-hand corner along the left side of the fabric.

6. Cut a 5-inch length of 1-inch wide pile tape.

7. Place the length of pile tape along the left-hand side of the fabric from the bottom left-hand corner to the 5 inch mark. Sew pile tape in place with a boxstitch.

8. From the bottom right-hand corner, measure and mark 2 3/8 inches and 3 3/8 inches to the left along the bottom edge of the fabric.

9. Measure and mark 5 inches up from the bottom right-hand corner along the right side.

10. At the 5-inch mark, measure and mark 2 3/8 inches and 3 3/8 inches to the left.

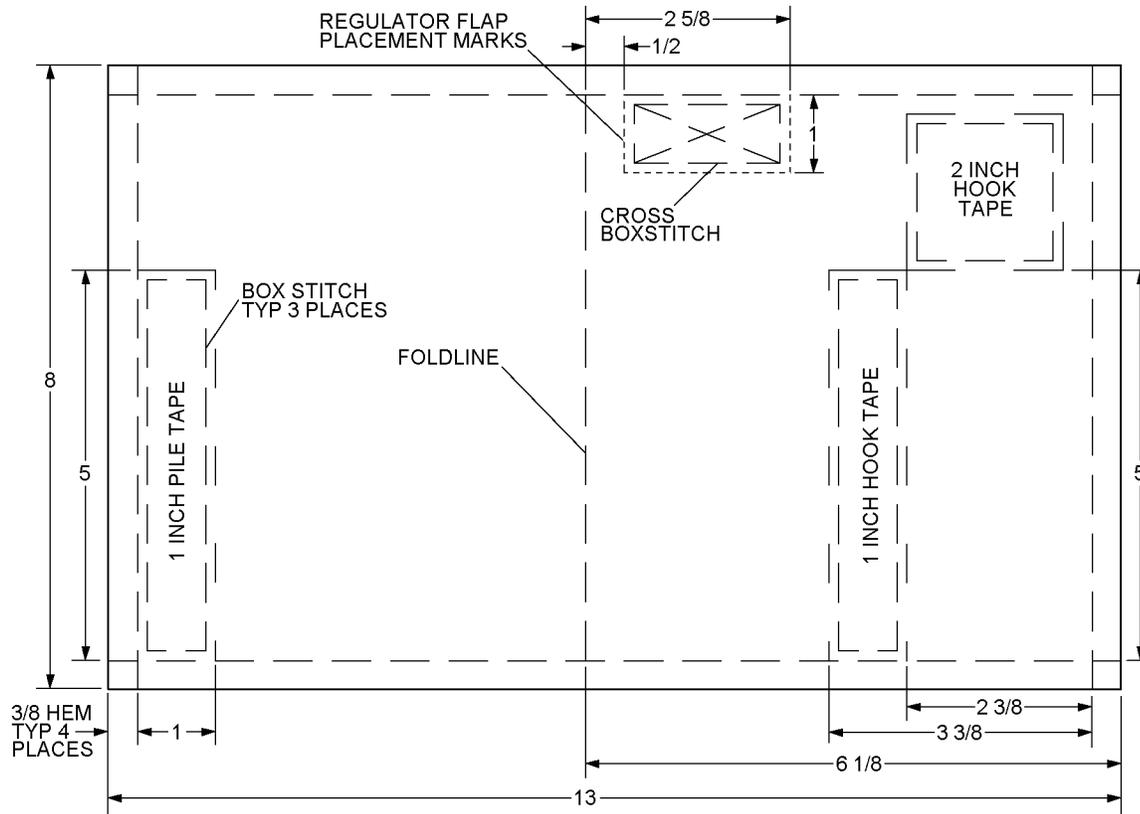


Figure 9-56. Bottle/Hose Panel

009056

11. Cut a 5-inch length of 1-inch wide hook tape.
12. Place the hook tape between the two 2 3/8-inch and the two 3 3/8-inch marks. Sew hook tape in place with a boxstitch.
13. Starting from the top right-hand corner, measure and mark 1/4 inches and 2 1/4 inches down along the right side of the fabric.
14. Cut a 2-inch length of 2-inch wide hook tape.
15. Place the hook tape on the fabric between the 1/4-inch and 2 1/4-inch marks and 3/8 inches to the left of the right-hand finished edge of the fabric so that the bottom left-hand corner of the 2-inch hook tape approximately meets the top right-hand corner of the 1-inch hook tape. Sew the hook tape in place with a boxstitch.

9-432. FABRICATION OF THE REGULATOR FLAP. To fabricate the Regulator Flap (figure 9-57), proceed as follows:

1. Cut a 9 1/2 x 2 7/8-inch piece of vinyl coated nylon fabric.

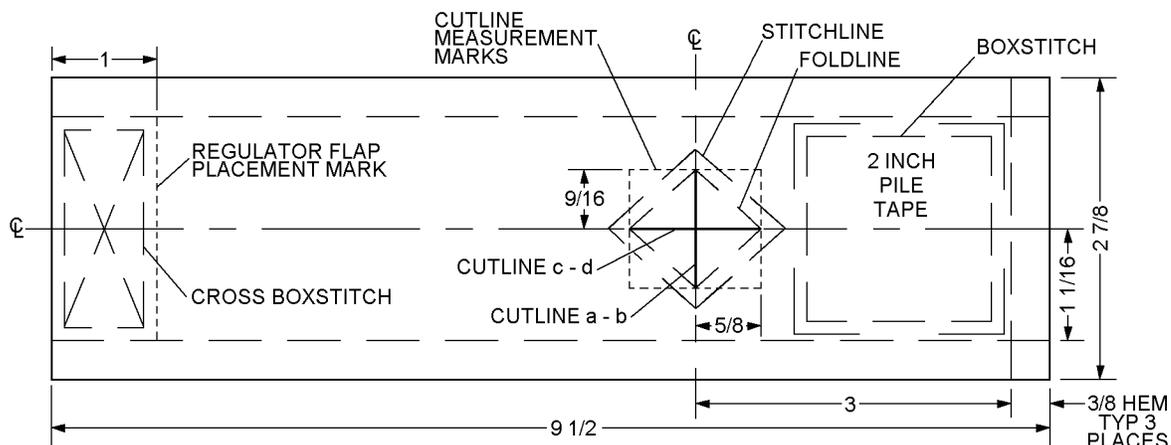
2. Single fold the edges by 3/8 inch and sew a hem on the 9 1/2-inch sides of the fabric and on one of the 2 7/8-inch sides.

3. Place the fabric so that the unhemmed side is on the left and the hemmed edges are face up. From the top right-hand corner, measure and mark 3 inches to the left on the topside of the fabric. From the bottom right-hand corner, measure 3 inches and mark to the left on the bottom side of the fabric. Draw a vertical line across the width of the fabric to connect the two 3-inch marks.

4. Along each 2 1/8-inch side of the fabric, measure and mark the middle of each side at 1 1/16 inches. Draw a line to connect the 1 1/16-inch marks.

5. From the point where the two lines intersect on the 2 1/8-inch line, measure and mark cut point (a) at 9/16 inches up from the intersection and cut point (b) at 9/16 inches down from the intersection. On the 9 1/8-inch line, measure and mark cut point (c) at 5/8 inches to the left of the intersection and cut point (d) at 5/8 inches to the right of the intersection.

6. Make a 1 1/8-inch cut in the fabric by cutting from cut point (a) to cut point (b). Make a 1 1/4-inch cut in the fabric by cutting from cut point (c) to cut point (d).



009057

Figure 9-57. Regulator Flap

7. With the fabric positioned so that the hemmed edges are facing up, fold back the four triangular cuts and sew them in place 1/8 inches from folded edge, forming a diamond shaped opening.

8. Cut a 2-inch length of 2-inch wide pile tape.

9. With the hemmed edges facing up and the unsewn edge to the left, place the pile tape on the fabric so that it is even with the right side of the fabric. Sew pile tape in place with a boxstitch.

10. From the unhemmed side, measure and mark 1 inch along the topside and 1 inch along the bottom side.

9-433. ASSEMBLY OF HOLSTER. To assemble the holster, proceed as follows:

1. Place bottle/hose panel with hook and pile tapes facing down. With the pile tape side of the regulator flap facing up, place the regulator flap between the regulator flap placement marks on the bottle/hose panel, aligning the 1-inch marks so that they are even with the finished edge of the bottle/hose panel and the 1-inch unhemmed edge of the regulator flap overlaps the bottle/hose panel. Sew flap in place with a 3/4 x 1 3/4-inch cross boxstitch.

2. Position the back panel so that the long sides are at the top and bottom, the unhemmed side is on the right, the hemmed edges are facing up and the webbing straps are flat.

3. Fold bottle/hose panel at fold line so that the line is visible on the outside. Place folded bottle/hose panel on the left edge of the back panel so that the fold line aligns with the top edge of the back panel and the side with the hook tape is facing up.

4. Fold the unhemmed side of the back panel to meet the right hand folded corner of the bottle/hose panel. Sew the folded edge of the bottle/hose panel to the back panel and the folded back panel portion in place with two rows of stitches side by side that run from the top left hand corner to the top right hand corner of the back panel.

5. Mate the 5-inch hook tape with the 5-inch pile tape. Position the assembly so that the regulator flap is on the right side and the webbing straps are flat. Align the bottom flap of the bottle/hose panel with the bottom edge of the back panel so that the bottom left corners meet. Sew the bottom edge of the bottle/hose panel to the back panel with two rows of stitches side by side that run from the bottom left hand corner of the bottle/hose panel to the bottom right hand corner of the back panel.

6. Position the assembly so that the side with the webbing is facing up, the webbing straps are vertical and the regulator flap is on the right. From the bottom right corner of the back panel, measure 1/2 inch to the left along the bottom edge and 1/2 inch up and mark. Cut hole at mark and set a 00 grommet in the hole.

7. To set snaps, position assembly as in the last step. Measure and mark on center of webbing weave line 3/4 inch in on all (6) ends of the webbing straps. Cut holes at each of the six marks.

8. Set studs and eyelets in the short end facing away from the bottle/hose panel.

9. Set caps and sockets on the long end of the webbing straps so the lock tabs are centered on the webbing weave line and on the side closest to the back panel, and set caps underneath with dots opposite the lock tabs.

NAVAIR 13-1-6.5

9-434. ATTACHMENT OF HABD MOUTHPIECE COVER TO PHABD HOLSTER. To attach the HABD mouthpiece cover, proceed as follows:

1. Pass the tie down strap through the center of the mouthpiece cover and through the 00 grommet on the holster.
2. Tighten the tie down strap until the mouthpiece cover touches the back panel of the holster.
3. Cut off excess strap.

9-435. ATTACHMENT OF PHABD HOLSTER TO LIFE PRESERVER.

9-436. ATTACHMENT OF PHABD HOLSTER TO THE LPU-32/P LIFE PRESERVER. To attach the PHABD holster to the LPU-32/P Life Preserver, proceed as follows:

1. Place the LPU-32/P on a flat clean surface so that the collar is on the top, the survival items pouch is on the bottom and the nylon buckle is on the left. Place the regulator flap end of the PHABD holster on the left and the open end on the right. Place the PHABD holster assembly over the waist belt assembly of the LPU-32/P so that the leftmost snap strap is between the right side of the nylon buckle and the left side of the webbing loop that runs from the bottom of the zipper to the loop around the survival items pouch.
2. Loop the leftmost snap strap around the waist belt assembly and snap in place.
3. Position the middle snap strap of the PHABD holster so that it is between the right side of the webbing loop below the zipper and the nylon slide. Loop the middle strap around the waist belt assembly and snap in place.
4. Loop the rightmost snap strap of the PHABD holster around the waist belt assembly and snap in place.

9-437. ATTACHMENT OF PHABD HOLSTER TO THE LPP-1 (36H1336-1), OR LPP-1A (68A94D2-1). To attach the PHABD holster to the LPP-1 (36H1336-1), or LPP-1A (68A94D2-1), proceed as follows:

1. Remove dye marker, MIL-S-17980, and pouch assembly, P/N 68A94D5-1, and store for future use.
2. Place the preserver on a flat clean surface so that the collar is on the top, the belt assembly is on the bottom and the side with the oral inflation tube is facing up. Position the preserver's belt assembly flat so that

the hook end of the buckle is on the right and the clasp end is on the left.

NOTE

The middle snap strap of the PHABD holster assembly is not used on the LPP-1 or LPP-1A.

3. Snap the middle strap together to eliminate loose ends.

4. Place the regulator flap end of the PHABD holster on the left and the open end on the right. Place the PHABD holster assembly over the belt assembly of the preserver so that the leftmost snap strap of the PHABD holster assembly is to the left of the belt loop of the preserver and the rightmost snap strap is to the right of the belt loop.

5. Snap leftmost and rightmost straps in place around the belt assembly.

9-438. ATTACHMENT OF PHABD HOLSTER TO THE POUCH TYPE PRESERVER (PTP). To attach the PHABD holster to the PTP, proceed as follows:

1. Remove hoisting strap.
2. Remove the signaling whistle lanyard from the belt assembly and reattach signaling whistle lanyard to the oral inflation tube loop using a bowline knot. Accordion fold whistle lanyard. Secure whistle and lanyard to the oral inflation tube between the oral inflation tube loop and the base of the oral inflation tube by looping a rubber band around the oral inflation tube, the folded lanyard and the mouthpiece end of the whistle.
3. Remove dye marker, MIL-S-17980, and pouch assembly, P/N 68A94D5-1, and store for future use.
4. Reinstall hoisting strap in accordance with NAVAIR 13-1-6.1-2.
5. Place the preserver on a flat clean surface so that the collar is on the top, the belt assembly is on the bottom and the side with the oral inflation tube is facing up. Position the preserver's belt assembly flat so that the hook end of the buckle is on the right and the clasp end is on the left.

6. Open inflation assembly protective flap. Accordion fold the lifeline and toggle in lengths equal to length of CO₂ bottle. Secure folded lanyard with a rubber band. Place folded lanyard on the preserver above the CO₂ bottle. Ensure that no part of the lanyard is near the CO₂ inflation valve. Close inflation assembly protective flap and secure snaps.

NOTE

The middle snap strap of the PHABD holster assembly is not used on the PTP.

7. Snap the middle strap together to eliminate loose ends.

8. Place the regulator flap end of the PHABD holster on the left and the open end on the right. Place the PHABD holster assembly over the belt assembly of the preserver so that the leftmost snap strap of the PHABD holster assembly is to the left of the belt loop of the preserver and the rightmost snap strap is to the right of the belt loop.

9. Snap leftmost and rightmost straps in place around the belt assembly.

9-439. STOWING OF HABD IN THE PHABD HOLSTER.**WARNING**

The SRU-40A/P or B/P Helicopter Aircrew Breathing Device (HABD) must be pre-flight inspected in accordance with paragraph 9-446 prior to use.

9-440. Ensure the SRU-40A/P or -40B/P HABD has been pre-flight inspected in accordance with paragraph 9-446. Place the HABD cylinder in the holster sleeve and secure top flap over first stage regulator. Ensure pressure gage is positioned through the opening on flap and secure hook and pile fastener. Route the regulator hose down alongside the cylinder sleeve of the holster in a single U shaped loop. Fold the hose panel over the hose and secure the hook and pile fastener. Place regulator mouthpiece inside mouthpiece cover and position the mouthpiece so that the mouthpiece faces towards the belt assembly and the regulator purge cover faces outwards away from the belt assembly.

9-441. MAINTENANCE.

9-442. Maintenance procedures shall be performed by Organizational level maintenance unless otherwise specified. All maintenance actions and inspections shall be documented in accordance with OPNAVINST 4790.2 Series. Maintenance of the PHABD holster is limited to inspection and minor repairs. All maintenance of the HABD shall be accomplished in accordance with Chapter 16 of this manual.

9-443. INSPECTION. The inspection of the PHABD system shall consist of a Place-In-Service Inspection,

90-Day/360-Day Special Inspections and Pre-Flight, Post-Flight Inspections.

9-444. Place-In-Service Inspection, PHABD Holster. To perform the Place-In-Service Inspection, proceed as follows:

NOTE

Failure of a commercially procured holster during the Place-In-Service Inspection renders the holster non-RFI and must be reported in accordance with OPNAVINST 4790.2 series.

1. Visually inspect the holster for loose stitching, fastener tape, cuts or tears.

2. Perform a fit check to verify the HABD cylinder fits inside the holster's sleeve.

3. Perform a functional check of the attaching snaps.

9-445. Place-In-Service Inspection, SRU-40A/P and B/P. The Place-In-Service Inspection for the HABD shall be accomplished at Intermediate level maintenance in accordance with Chapter 16 of this manual.

9-446. Pre-Flight Inspection, PHABD System. The Pre-Flight Inspection shall be accomplished on both the HABD and holster by the Crew Chief prior to the first flight of the day. To perform the Pre-Flight Inspection, proceed as follows:

WARNING

Proper handling of the HABD should be adhered to at all times to prevent damage to the unit. Mishandling of HABD may cause rupture of cylinder, or separation or breakage of components resulting in the cylinder becoming a projectile, which could cause serious injury or death.

1. Perform the Pre-Flight Inspection on the HABD as follows:

a. Visually inspect the HABD for evidence of malfunction, external damage, and corrosion.

b. Inspect mouthpiece for cuts, cracks, cleanliness and overall integrity.

c. Carefully inspect the hose to ensure it is securely connected to both the first and second-stage regulators. Inspect the hose for cuts, cracks, blisters, abrasions, or other damage and inspect the fittings for corrosion.

WARNING

If cylinder rotates more than one complete turn while turning to the ON position, STOP TURNING CYLINDER and immediately report malfunction to maintenance personnel. Continuing to rotate cylinder may cause separation of the cylinder from the first-stage regulator subassembly resulting in the cylinder becoming a projectile, which could cause serious injury or death.

d. While holding the first-stage regulator securely, slowly turn the HABD cylinder counter-clockwise until the ON/OFF indicator pin can be sighted through the small aperture marked ON.

e. Examine the pressure gage to determine if the cylinder is ready-for-issue. The pressure gage should read in the green zone (2700 to 3000 psi). After ensuring that the system is full, listen for any obvious signs of leakage from the system, including free flow from the second-stage regulator. Report any discrepancies to maintenance personnel immediately.

f. Quickly press and release the purge button on the second-stage regulator. A short burst of air should escape when the button is depressed and stop when it is released. Listen to ensure airflow has stopped.

g. Inspect purge cover to ensure that torque sealant is present. If not, have maintenance personnel check purge cover for tightness and re-apply torque sealant.

h. Report any discrepancies to maintenance personnel.

i. If no discrepancies have been noted, the HABD shall remain in the ON position for the duration of the day's flights.

2. Perform the Pre-Flight Inspection on the PHABD holster as follows:

a. Inspect holster material for wear and contamination.

b. Inspect holster for loose or broken stitches.

WARNING

Missing snaps shall be considered a FOD hazard and a thorough FOD inspection should be conducted prior to the flight.

c. Inspect hook and pile fastener tape and snaps for security.

d. Inspect snaps for corrosion.

e. Report any discrepancies to maintenance personnel.

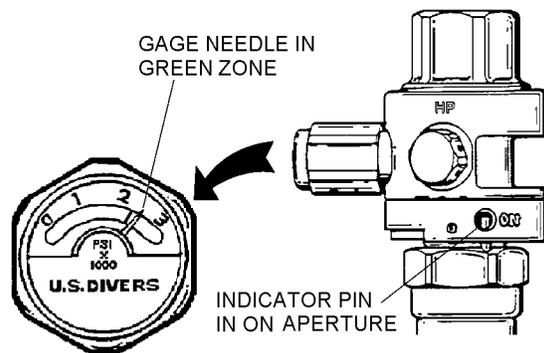
9-447. Passenger Pre-Flight Inspection. Each passenger shall accomplish the Passenger Pre-Flight Inspection prior to each flight as follows:

WARNING

Any discrepancies noted shall be reported immediately to the Crew Chief. Failure to ensure PHABD system is securely attached or pressure gage is not in the green zone could result in loss of life or failure of the PHABD system.

1. Ensure PHABD system is securely attached to the life preserver by checking snaps for security. Missing snaps shall be reported immediately to the Crew Chief.

2. Ensure HABD is on and pressurized by visually identifying that the indicator pin is in the ON aperture and the gage needle is reading in the green zone (2700 to 3000 psi).



09447002

Step 2 - Para 9-447

9-448. Post-Flight Inspection, PHABD System. The Post-Flight Inspection shall be accomplished on both the HABD and the holster at the end of the last flight of the day by the Crew Chief. To perform the Post-Flight Inspection, proceed as follows:

1. Perform the Post-Flight Inspection on the HABD as follows:



When turning the HABD off, do not over-tighten. Over-tightening may damage regulator or indicator pin.

- a. Ensure pressure gage reads in the green zone (2700 to 3000 psi) before turning off HABD.

NOTE

Temperature changes affect the pressure in the HABD. If gage needle reads to the lower end of the green zone (2700 psi), the HABD may be topped-off to ensure enough pressure will be available for the next day's flights. Top-off HABD in accordance with Chapter 16 of this manual.

- b. Turn the HABD off by securely holding the first-stage regulator and slowly rotating the unit's cylinder clockwise until the indicator pin is in the OFF position. Do not over-tighten. Depress the purge button on the second-stage regulator to completely depressurize the hose and second-stage regulator. Wait at least five minutes and depress the purge button again to determine if pressure has built up inside the hose and second-stage regulator. If build up of air pressure occurs the HABD must be routed to the Intermediate level maintenance for repair.

- c. Inspect HABD components for signs of damage.

- d. Report any discrepancies to maintenance personnel.

2. Perform the Post-Flight Inspection on the PHABD holster as follows:

- a. Inspect holster material for wear and contamination.

- b. Inspect holster for loose or broken stitches.

- c. Inspect snaps for security.

- d. Report any discrepancies to maintenance personnel.

9-449. Special Inspection (90-Day and 360-Day). The 90-Day and 360-Day Special Inspections shall be

performed on the PHABD system by qualified Aircrew Survival Equipmentmen (PR/6060). Perform inspections as follows:

NOTE

The 90-Day and 360-Day Special Inspections on the HABD shall be performed in accordance with Chapter 6 of this manual. Inspection of the life preserver shall be in accordance with the NAVAIR 13-1-6.1-2.

The complete PHABD system shall be forwarded to AIMD for the 360-Day Special Inspection. Perform the 360-Day Special Inspection on holster in accordance with steps 4 thru 9.

1. Remove PHABD system from life preserver. If required, forward the life preserver to Intermediate level maintenance for inspection.

2. Remove the HABD from the holster.

3. Perform 90-Day or 360-Day Special Inspection on HABD in accordance with Chapter 6.

4. Inspect holster material and webbing for wear and contamination.

5. Inspect holster for cuts, tears, and loose or broken stitches. Broken or loose stitching shall be repaired by restitching using the same type stitch and stitches per inch as the original stitching.

NOTE

No more than three stitching repairs on any one area on the holster are authorized.

6. Inspect snaps for security of attachment, corrosion and ease of operation. Defective or missing snap fasteners may be replaced as necessary.

7. Inspect hook and pile fastener tape for attachment, wear and ease of operation. Repair or replace hook and pile fastener tape as necessary.

8. Deficient holsters shall be removed from service and replaced with a new holster.

9. Record inspection date and data on appropriate forms in accordance with OPNAVINST 4790.2 series.

Section 9-47. Theater Specific (Hot and Cold Weather) Survival Kits

9-450. DESCRIPTION.

9-451. Theater Specific (Hot and Cold Weather) Survival Kits are designed to supplement the current Individual Aircrewmember's Survival Kit SRU-31/P and SRU-31A/P in extreme hot and cold weather environments. The kits will be authorized for use at the discretion of the Type Commander depending on mission requirements.

9-452. CONFIGURATION.

9-453. Theater Specific (Hot and Cold Weather) Survival Kits will be locally manufactured and consist of a single pouch with the items listed in tables 9-7 and 9-8.

9-454. APPLICATION.

9-455. Theater Specific (Hot and Cold Weather) Survival Kits are configured for survival vest application only.

NOTE

Theater Specific Kits shall not be considered part of the authorized 5 lbs of optional equipment as stated in NAVAIR 13-1-6.7-2.

9-456. MAINTENANCE.

9-457. Maintenance shall be performed by Organizational Level maintenance or above. Kits are subjected to Preflight and Special 90-Day inspections to coincide with the inspection cycle of the survival vest.

9-458. SPECIAL INSPECTION. The Special Preflight inspection shall consist of a visual inspection performed by the aircrewmember prior to each flight. Aircrewmember shall report any discrepancies to maintenance personnel. The 90-Day inspection shall consist of a visual inspection with the repair or replacement of contents as listed in tables 9-7 and 9-8.

Table 9-7. Theater Specific (Cold Weather) Survival Kit

Item	Quantity	Source/NIIN	Inspection
Pouch	1 ea	Local Manufacture refer to paragraph 9-459	<ol style="list-style-type: none"> 1. Repair rips, tears or broken stitches. 2. Replace velcro as necessary. 3. Replace pouch as necessary.
4 x 4 Plastic Bag (for use with candles)	1 ea	NIIN 00-837-7753	<ol style="list-style-type: none"> 1. Replace as necessary.
Fire Starting Tool, Magnesium	1 ea	NIIN 01-160-5618 or Campmor 28 Parkway, Box 700 Upper Saddle River, NJ 07458 (800) 525-4784 P/N 23131	<ol style="list-style-type: none"> 1. Replace as necessary.
Hand Warmers	3 pr	NIIN 01-395-3018 or Grabber 4600 Danvers Dr SE Grand Rapids, MI 49512 (800) 423-1233 P/N G-28	<ol style="list-style-type: none"> 1. Inspect outer package for holes. 2. Inspect validity date (expiration date) on package. 3. Replace as necessary.
Blanket, Cocoon, Olive Drab/Silver	1 ea	Survivor Industries, Inc. 2585 Azurite Circle Newbury Park, CA 91320 (800) 263-6818 www.survivorind.com P/N CC-02	<ol style="list-style-type: none"> 1. Inspect outer packaging for tears and holes. 2. Replace as necessary.

Table 9-7. Theater Specific (Cold Weather) Survival Kit (Cont)

Item	Quantity	Source/NIIN	Inspection
Candles (tea light), Non-scintillating (Note 1)	2 ea	Campmor 28 Parkway, Box 700 Upper Saddle River, NJ 07458 (800) 525-4784 P/N 80355 or locally purchase	1. Inspect for leaking or melting. 2. Replace as necessary.
Protective Spectacles	1 pr	Bernell 4016 N. Home St Mishawaka, IN 46545-4308 (800) 348-2225 P/N NOPMS	1. Inspect for tearing, scratches. 2. Replace as necessary.
Notes: 1. Store candles in 4 x 4 plastic bag to prevent leakage.			

Table 9-8. Theater Specific (Hot Weather) Survival Kit

Item	Quantity	Source/NIIN	Inspection
Pouch	1 ea	Local Manufacturer Reference paragraph 9-459	1. Repair rips, tears or broken stitches. 2. Replace velcro as necessary. 3. Replace pouch as necessary.
4 x 4 Plastic Bag (for use with Sunsect)	1 ea	NIIN 00-837-7753	1. Replace as necessary.
6 x 6 Plastic Bag (for use with mosquito headnet and mittens)	1 ea	NIIN 00-837-7754	1. Replace as necessary.
Sunsect Sunscreen 0.3 oz packets (Note 1)	3 ea	NIIN 01-452-9582	1. Inspect for leaking. 2. Replace as necessary. 3. No expiration date.
Mosquito Headnet/ mittens (Note 2)	1 ea	NIIN 01-192-2357	1. Inspect for rips and tears. 2. Replace as necessary.
Protective Spectacles	1 pr	Bernell 4016 N. Home St Mishawaka, IN 46545-4308 (800) 348-2225 P/N NOPMS	1. Inspect for tearing and scratches on lens. 2. Replace as necessary
Bagged Water (125 ml pouch)	2 ea	NIIN 01-124-4543 or Survivor Industries, Inc 2585 Azurite Circle Newbury Park, CA 91320 (800) 263-6818 www.survivorind.com	1. Inspect for leaking. 2. Check expiration date. 3. Replace as necessary.
Notes: 1. Place packets of Sunsect in 4 x 4 plastic bag to prevent leakage. 2. Repackage mosquito headnet/mittens into flat configuration and store in 6 x 6 plastic bag.			

NAVAIR 13-1-6.5

9-459. FABRICATION OF EQUIPMENT POUCH.

To make the equipment pouch, proceed as follows:

Materials Required		
Quantity	Description	Reference Number
As Required	Cloth, Coated Herculite, Green	MIL-C-20696 NIIN 00-616-0022
As Required	Thread, Nylon Size E	V-T-295 NIIN 00-616-0079
As Required	Fastener, Tape, Hook, 1 inch	MIL-F-21840 NIIN 00-106-5973
As Required	Fastener, Tape, Pile, 1 inch	MIL-F-21840 NIIN 00-106-5974
1	Grommet, Metallic, Size 00	MS20230B20 NIIN 00-291-0302

NOTE

All stitching shall be Type 301 lockstitch, 8 to 10 stitches per inch. Backstitch minimum 1/2 inch.

1. Cut a 6 1/2-inch x 15-inch piece of material.
2. Turn each 6 1/2-inch end down 1/4 inch and sew.
3. Cut a 6 1/2-inch strip of 1-inch hook tape and a 6 1/2 inch strip of 1-inch pile tape.
4. With 1/4-inch seams facing up, place the hook tape 1/4 inch down from folded sewn end and sew the hook tape in place. This will become the top flap of pouch.

5. Turn material over. On opposite end from hook tape, place the pile tape 1/4 inch down from folded sewn end and sew pile tape in place.

6. Turn materials back over so hook tape is on top and facing up, mark a line 3 inches down from the 1/4-inch fold. Fold bottom of material up to the 3-inch line and sew completely around the perimeter of the material forming a pouch with flap.

7. With pouch opening facing up and flap open, make a mark on the inside of pouch, 2 1/2 inches down from top of flap and 3/4 inch in from right side of flap. Cut hole at mark and set "00" grommet.

8. Mark the front of the pouch identifying which type of Theater Specific Kit (Hot or Cold) the kit is. Use black permanent marker and 1/2-inch letters.

9-460. STOWAGE OF EQUIPMENT. Stow equipment in pouch as follows:

- a. Stow equipment as compact as possible and close velcro flap.
- b. Using a 48-inch piece of Type I nylon cord, secure one end to the grommet on pouch using a bowline knot and the other to the survival vest.
- c. Record all maintenance actions on appropriate form in accordance with OPNAVINST 4790.2 series.

NOTE

Theater Specific Survival Kit location will vary according to survival vest configuration.