

CHAPTER 6

VENTILATED SEAT PAN

Section 6-1. Description

6-1. GENERAL.

6-2. The ventilated seat pan is designed for use with non-ejection seats. The ventilated seat pan functions as a seat for the aircrewmember as well as a container for an emergency oxygen system (figure 6-1).

6-3. The ventilated seat pan is attached to a standard soft pack survival kit. The standard soft pack contains a liferaft and survival equipment (figure 6-2).

6-4. CONFIGURATION.

6-5. The ventilated seat pan is constructed of a rigid base covered with a foam cushion and fabric cover. The foam cushion and fabric cover are attached to the base of the seat pan with hook and pile tape. The seat pan houses a 22 cu in., 1800 psi, emergency oxygen cylinder and hose assembly, capable of supplying just over 10 minutes of breathing oxygen for high altitude bailout or in the event of a failure of the aircraft oxygen system. The seat pan is attached to the standard soft pack by adjustable retaining straps on the soft pack container.

6-6. SUBASSEMBLIES. (figure 6-3.) Major subassemblies of the ventilated seat pan are as follows:

- a. Emergency oxygen bottle and hose assembly
- b. Seat pan base
- c. Cushion and fabric cover

6-7. REFERENCE NUMBERS, ITEMS AND SUPPLY DATA.

6-8. Section 6-8, Illustrated Parts Breakdown, (figures 6-7 and 6-8) contains information on each assembly, subassembly, and component part of the seat pan. The figure and index number, reference or part number, description, and units per assembly are provided.

6-9. APPLICATION.

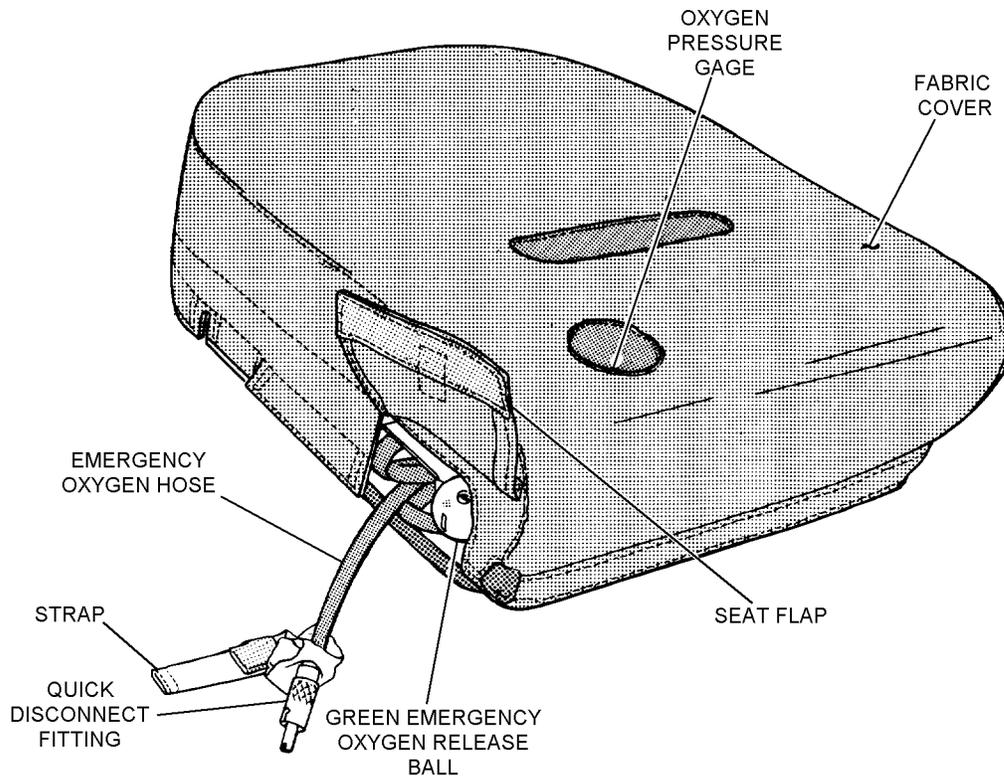
6-10. Ventilated seat pan P/N 123AB11592-1 (26512) and standard soft pack are used on the E-2 series and C-2A aircraft.

6-11. FUNCTION.

6-12. During normal flight operations, the seat pan functions as a ventilated seat for the aircrewmember. The seat pan is provided with a hose and bladder stitched under the seat cushion. When hooked up to the blower on the seat, this assembly provides forced ventilation of the seat.

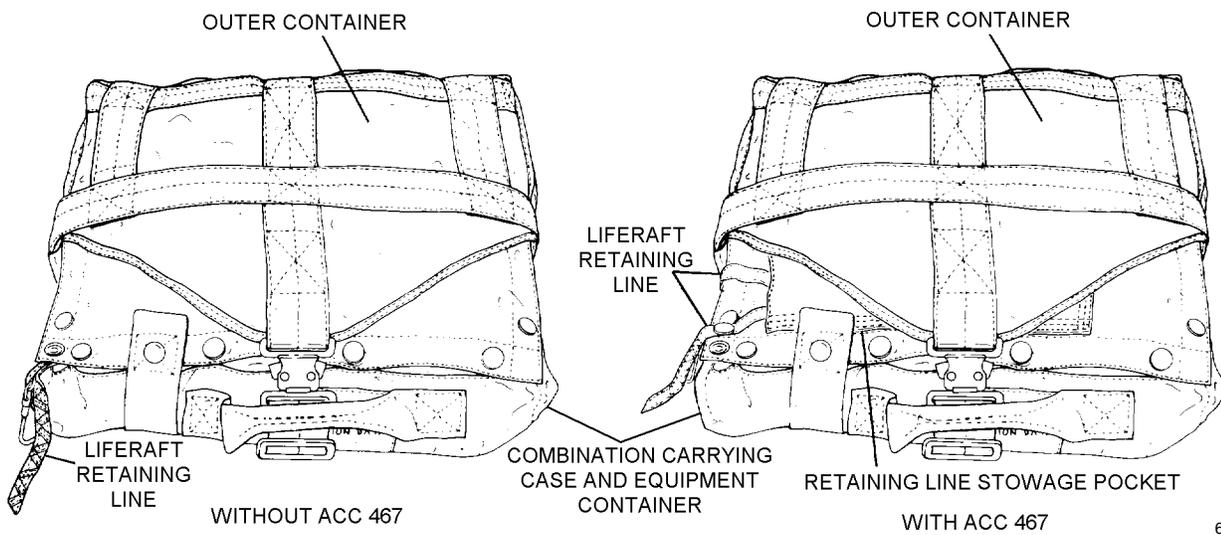
6-13. When an emergency oxygen supply is required, the aircrewmember pulls the strap on the front of the right-hand side of the seat cushion. This strap pulls the seat flap open. The oxygen hose is attached to this strap. The aircrewmember shall then manually actuate the emergency oxygen supply by pulling the green ball under the seat flap.

6-14. The standard soft pack contains a liferaft and survival items. The liferaft shall be inflated manually by pulling the inflation assembly pull toggle. The radio beacon shall also be manually actuated by pulling out the automatic actuation plug and moving the switch to the on position.



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Figure 6-1. Ventilated Seat Pan



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Figure 6-2. Standard Soft Pack

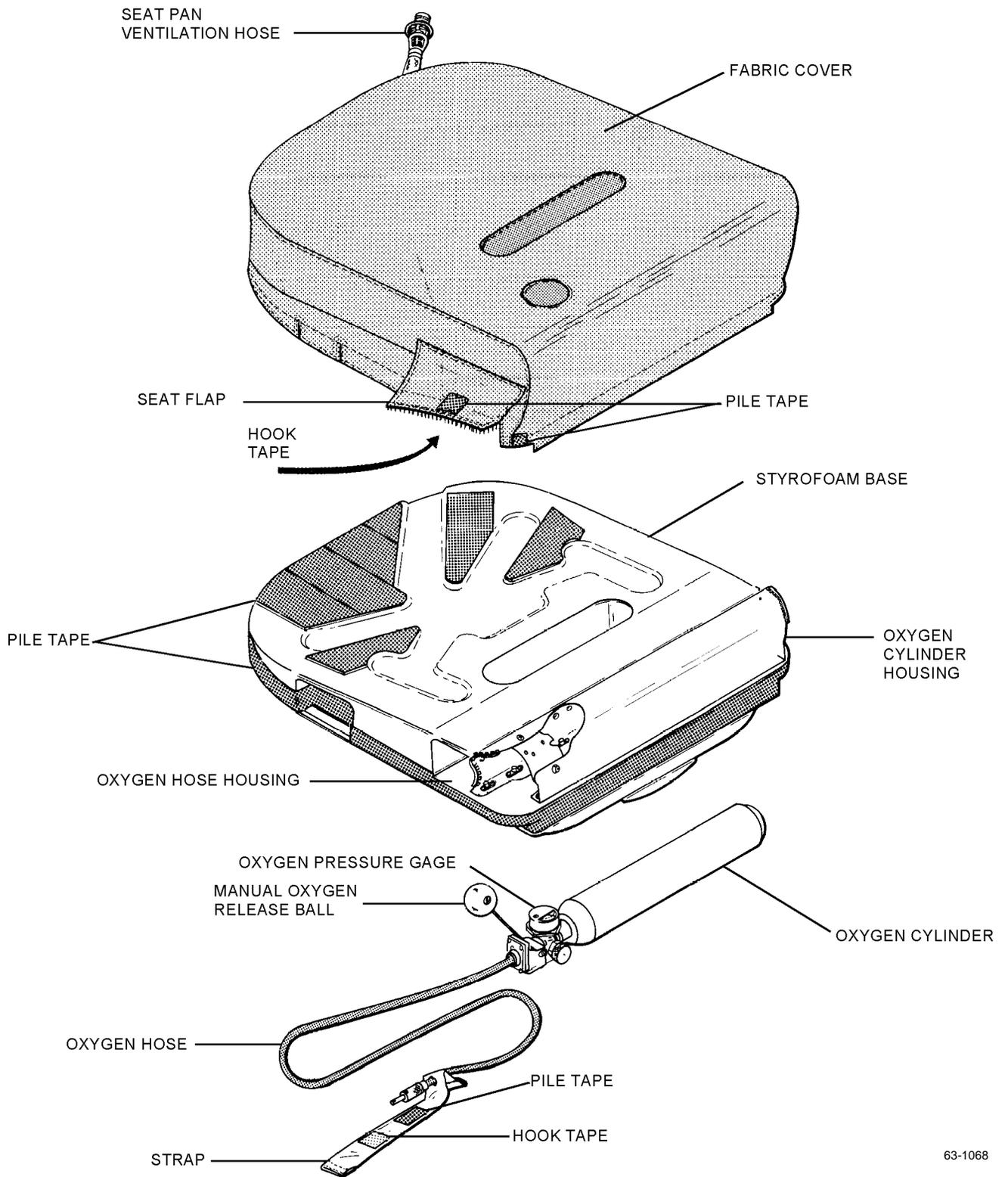


Figure 6-3. Seat Cushion, Pan, and Emergency Oxygen Bottle

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Section 6-2. Modifications

6-15. GENERAL.

6-16. Standard Soft Packs, P/N 68A77H3-1, used on E-2 aircraft, shall be updated by comparing the configuration of the pack with the directives listed in [table 6-1](#).

NOTE

There are no modifications to the standard soft pack used for C-2A aircraft required/authorized at this time.

Table 6-1. Ventilated Seat Pan/Standard Soft Pack Directives

Description of Modification	Application	Modification Code
Modification of Standard Soft Pack, P/N 68A77H3-1, used by E-2 aircrew.	All LR-1 Standard Soft Packs used on E-2 Series Aircraft	66-467
Removal of AN/URT-33A Radio Beacon.	All LR-1 Standard Soft Packs installed in E-2 aircraft	66-473 Amend. 1

Section 6-3. Rigging and Packing

6-17. GENERAL.

6-18. Unless operational requirements demand otherwise, rigging and packing of the seat pans and soft pack survival kits shall be accomplished at Intermediate Levels of maintenance by qualified personnel every 448 days.

NOTE

Quality assurance steps are provided for critical operations. When a step is underlined, the Aircrew Survival Equipmentman shall perform the operation and then have performance verified by Quality Assurance (QA).

6-19. RIGGING AND PACKING PROCEDURES.

6-20. Rigging and packing of the seat pans and soft pack survival kits are accomplished in six operations as follows:

1. Preliminary Procedures
2. Survival Equipment Binding
3. Survival Equipment Packing
4. Liferaft Preparation, Folding, Rigging, and Packing
5. Attachment of Seat Pan to Soft Pack
6. Attachment of Seat Pan and Soft Pack to NB-7 and NB-8 Parachute. (Refer to NAVAIR 13-1-6.2.)

6-21. PRELIMINARY PROCEDURES. The following preliminary procedures shall be accomplished prior to rigging and packing the seat pans and soft pack survival kits.

1. Ensure that the seat pan and soft pack survival kit and components have been inspected in accordance with [Section 6-5](#).
2. Inspect oxygen hose assemblies in accordance with [Chapter 4](#).
3. Disassemble seat pan and soft pack by removing combination carrying case and equipment container from special outer container.
4. Inspect special outer covering for damage, fabric for loose, broken or frayed stitching, and hardware for security of attachment, corrosion, damage, wear, and ease of operation.

WARNING

CO₂ bottle is under pressure. Use caution when disconnecting CO₂ bottle from life-raft. Do not loosen or attempt to remove inflation valve assembly from CO₂ cylinder.

CAUTION

Ensure actuating line is disconnected from CO₂ cylinder inflation valve before removal of CO₂ cylinder from life-raft.

5. Disconnect CO₂ cylinder from life-raft as follows:
 - a. Carefully remove life-raft from container.
 - b. Disconnect actuation line from CO₂ cylinder.
 - c. Disconnect CO₂ cylinder from life-raft.
 - d. Remove life-raft retaining line from CO₂ cylinders neck.

e. Ensure anti-chafing disc is installed. Reconnect CO₂ cylinder to life-raft finger tight. If functional test is required torque valve 80 to 90 in-lbs.

6. Ensure life-raft and CO₂ cylinder have been inspected in accordance with NAVAIR 13-1-6.1-1.

7. Ensure survival items have been inspected in accordance with NAVAIR 13-1-6.5.

NOTE

Ensure battery service life does not expire prior to the next scheduled inspection cycle of the assembly in which the radio set is installed. Refer to NAVAIR 16-30URT33-1 for battery service life.

8. Remove radio beacon set from kit and ensure that the battery and radio beacon have been inspected in accordance with NAVAIR 16-30URT33-1.

9. Check soft pack assembly for cuts, tears and abrasions and hardware for security of attachment, corrosion, damage, wear, and if applicable, ease of operation.

6-22. SURVIVAL EQUIPMENT BINDING. Ensure all survival items have been inspected in accordance with NAVAIR 13-1-6.5 before binding. To bind survival items, proceed as follows ([table 6-2](#)).

NOTE

To prevent loss of survival items tie items individually and then tie to 140-inch length of nylon cord. Nylon cord of prescribed lengths required for this procedure shall be seared at both ends to prevent fraying. Refer to [table 6-3](#).

All cord used shall be nylon (MIL-C-5040, Type I).

1. Using a 36-inch piece of nylon cord, tie an overhand knot in each end. Wrap one end of cord two overlapping turns around one end of signal flare (MK-13 MOD 0 or MK-124 MOD 0) and tie with surgeon's knot. Position cord-end overhand knot snugly against surgeon's knot.

Table 6-2. Survival Kit Items (Note 1)

Item Name	Quantity	Reference Number
Cord, (Nylon), Fibrous Type I	50 ft	NAVAIR 13-1-6.5
Signal, (Flare), Smoke and Illumination, MK-13 MOD 0 or MK-124 MOD 0 (Note 2)	2	NAVAIR 13-1-6.5
Sea (Dye) Marker, Fluorescein	2	NAVAIR 13-1-6.5
Sponge, (Bailing), Cellulose Type II, Class 2	1	NAVAIR 13-1-6.5
SRU-31/P Survival Kit, Packet #1 (Medical) (Note 3)	1	NAVAIR 13-1-6.5
SRU-31/P Survival Kit, Packet #2 (General) (Note 3)	1	NAVAIR 13-1-6.5
SRU-31A/P (Note 7)	Optional	NAVAIR 13-1-6.5
Water, Drinking, Canned (Note 4)	1	NAVAIR 13-1-6.5
Water, Drinking, Emergency (Note 6)	3	NAVAIR 13-1-6.5
Opener, Can, Hand	1	NAVAIR 13-1-6.5
Blanket, (Combat) Casualty, (3 oz) (Note 5)	1	NAVAIR 13-1-6.5
Ground/Air Emergency Code Card	1	NAVAIR 13-1-6.5
Envelope, Packing List	2	NAVAIR 13-1-6.5
Beacon Set, Radio	1	NAVAIR 13-1-6.5
Liferaft, Inflatable	1	NAVAIR 13-1-6.1-1

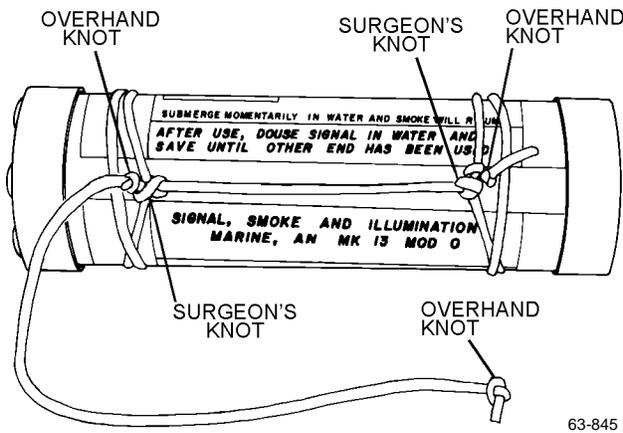
- Notes:
1. The items listed are typical and are considered mandatory for inclusion in the survival kit container. Deviation from the listed items may be required by certain Functional Air Wings (FUNCWINGS), Carrier Air Wings (CVW), COMFAIRS, or Marine Air Wings (MAW). Requests for deviations must be forwarded to and authorized by TYCOMS and with information to Fleet Support Team (FST) at NAVAIR-WARCENACDIV Patuxent River MD via Naval Message. When optional items are substituted, particular attention must be paid to the binding sequence so that physical sizes and binding order of substituted items remain approximately the same. That portion of an item name in parentheses is a common-use name or container size and is not intended for supply requisition purposes.
 2. MK-13 MOD 0 shall be used until stocks are depleted. MK-124 MOD 0 will replace MK-13 MOD 0 as stocks become available.
 3. SRU-31/P complete kits including Medical Packet (#1) and General Packet (#2) may be ordered; instructions for packing and ordering these kits are found in NAVAIR 13-1-6.5.
 4. One additional canned water may be added as optional item.
 5. Casualty blanket may be added as optional item.
 6. When the supply for emergency canned water has been exhausted, order emergency bagged water in accordance with NAVAIR 13-1-6.5.
 7. The selection of SRU-31/P or SRU-31A/P Individual Aircrewmember's Survival Kit will be at the discretion of the TYPE COMMANDER depending on mission requirements, reference NAVAIR 13-1-6.5, Chapter 9, for detailed information.

Table 6-3. Nylon Cord Lengths Required for Binding

Length (Inches)	No. Required
140	1
12 (Note 1)	4
30	2
36	3
40	2
50 (Note 1)	2

Notes: 1. When using bagged water in place of canned emergency water, the number of required 12 inch lengths will be a total of 5 and the required 50 inch lengths will be a total of 1.

2. Route cord to opposite end of flare. Wrap cord two overlapping turns around end of flare and tie with surgeon's knot followed by an overhand knot positioned snugly against surgeon's knot. Cord between end-ties shall be drawn tight.



Step 2 - Para 6-22

3. Tie other signal flare in the same manner as steps 1 and 2.

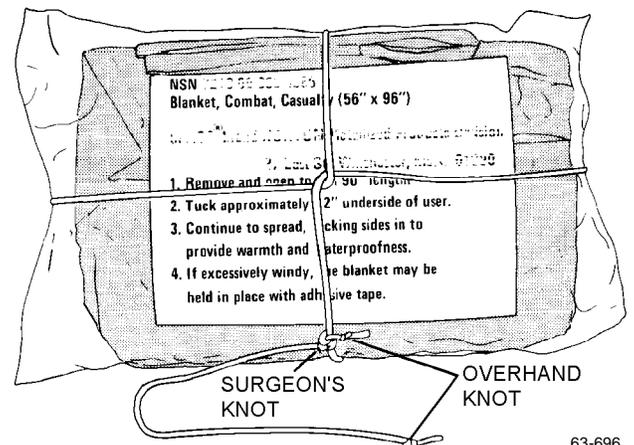
4. Using a 12-inch piece of nylon cord, tie an overhand knot near each end. Pass overhand knot through center grommet in dye marker and tie a bowline knot, allowing approximately a 1-inch loop. Bowline knot shall lie snugly against overhand knot.



Step 4 - Para 6-22

5. Tie second dye marker in the same manner as step 4.

6. If casualty blanket is used, tie an overhand knot near each end of a 30-inch piece of nylon cord. Wrap cord around blanket until cord ends meet, then rotate cords 1/4 turn and wrap cords around opposite sides of blanket. Tie with a surgeon's knot with overhand knot positioned snugly against surgeon's knot.



Step 6 - Para 6-22

NAVAIR 13-1-6.3-1

7. Using a 50-inch piece of nylon cord, tie an overhand knot near both ends. Wrap one end of cord two overlapping turns around end of canned water and tie with a surgeon's knot. Position cord-end overhand knot snugly against surgeon's knot. Route cord to opposite end of can. Wrap cord two overlapping turns around can and tie with surgeon's knot followed with an overhand knot positioned snugly against surgeon's knot. Cord between end-ties shall be drawn tight.



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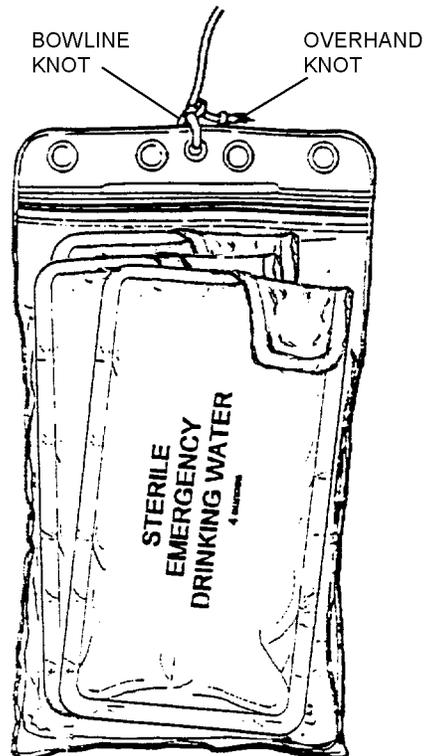
Step 7 - Para 6-22

8. If a second canned water is required, secure in the same manner as [step 7](#).

NOTE

Replacement rate of exhausted canned water shall be in accordance with the NAV-AIR 13-1-6.5 manual. Bagged emergency drinking water shall be stowed in the same order as canned emergency water. The bags of water shall be stowed in a flat configuration.

9. Bagged water. Place a maximum of three 4-ounce bagged emergency drinking water flat inside a clear vinyl envelope (MIL-B-117) with pour spout folded down. Bagged water must be able to fit into envelope without disrupting the closure of the sealing slide fastener. Using a 12-inch length of cord, tie an overhand knot on each end and pass knot through center hole in envelope. Secure with bowline knot, allowing an approximate 1-inch loop. Position an overhand knot snugly against the bowline knot. Ensure overhand knot is snug against surgeon's knot.



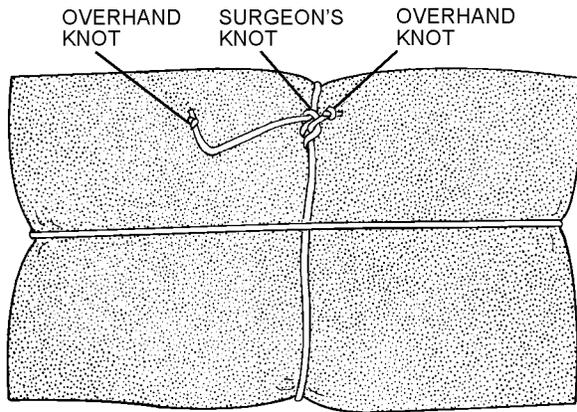
63-22

Step 9 - Para 6-22

NOTE

The bailing sponge should be compressed to a minimum thickness by compressing while damp and then allowing to dry in the compressed state before tying.

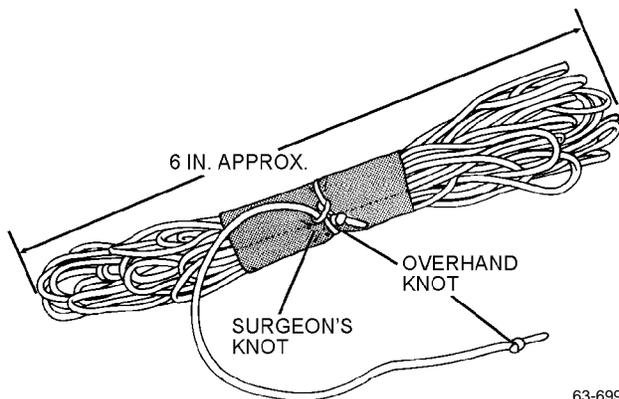
10. Using a 30-inch length of nylon cord, tie an overhand knot near ends. Wrap cord around sponge until cord ends meet, then rotate cords 1/4 turn and wrap cords around opposite sides of sponge. Tie with a surgeon's knot with cord-end overhand knot positioned snugly against surgeon's knot.



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Step 10 - Para 6-22

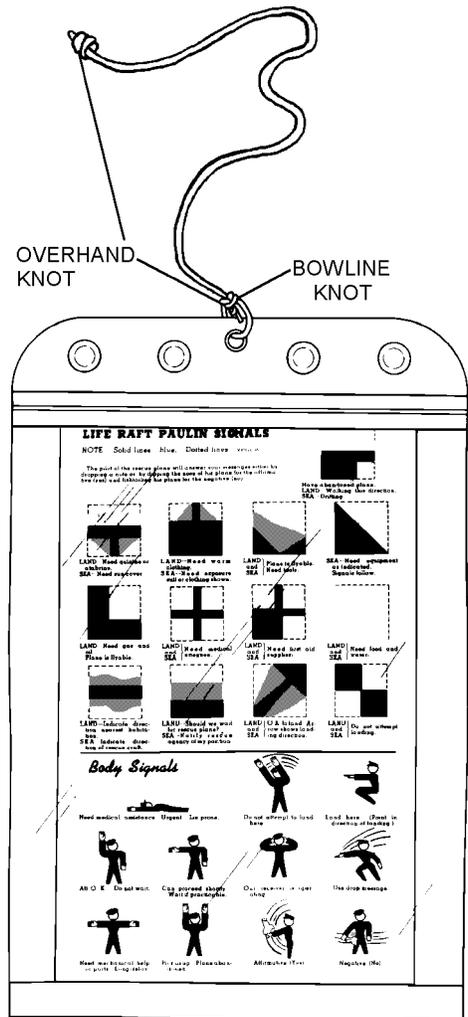
11. Cut one 2 x 3-inch piece of nylon duck material. Accordion-fold 50-foot length of nylon cord in 6-inch bights, and wrap material around center of folded cord. Using a 12-inch piece of nylon cord, tie an overhand knot near each end and secure one end of cord to center of material with a surgeon's knot. Position cord-end overhand knot snugly against surgeon's knot.



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Step 11 - Para 6-22

12. Place Ground/Air Emergency Code Card into clear vinyl plastic envelope (MIL-B-117) and close sealing zipper. Using a 12-inch piece of cord, tie an overhand knot in each end and pass knot through center hole in envelope. Secure with a bowline knot, allowing a 1-inch loop. Position bowline knot and cord-end overhand knot snugly together.

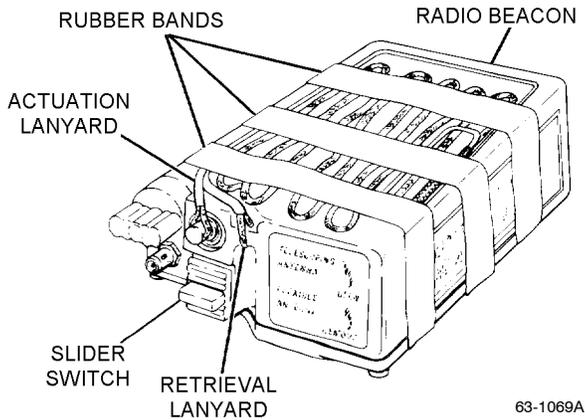


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Step 12 - Para 6-22

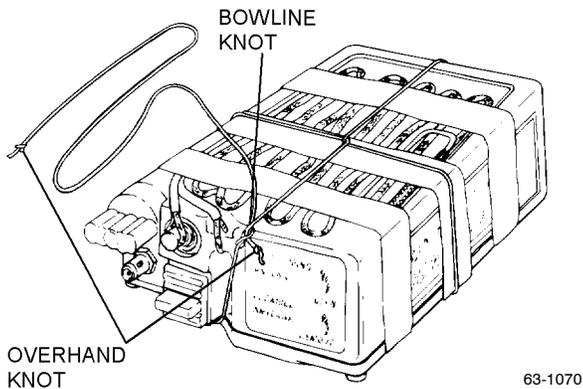
NAVAIR 13-1-6.3-1

13. Ensure the retrieval lanyard is attached at both ends with a bowline knot with an overhand knot tied at the tag end. Accordion-fold retrieval and actuation lanyards on top of the beacon and attach with three rubber bands.



Step 13 - Para 6-22

14. Using a 36-inch length of nylon cord, tie an overhand knot at both ends. Wrap cord around side of AN/URT-33 radio beacon until cord ends meet, then rotate cords 1/4 turn and wrap cords around opposite sides of radio beacon. Tie with a surgeon's knot with cord-end overhand knot positioned snugly against surgeon's knot.

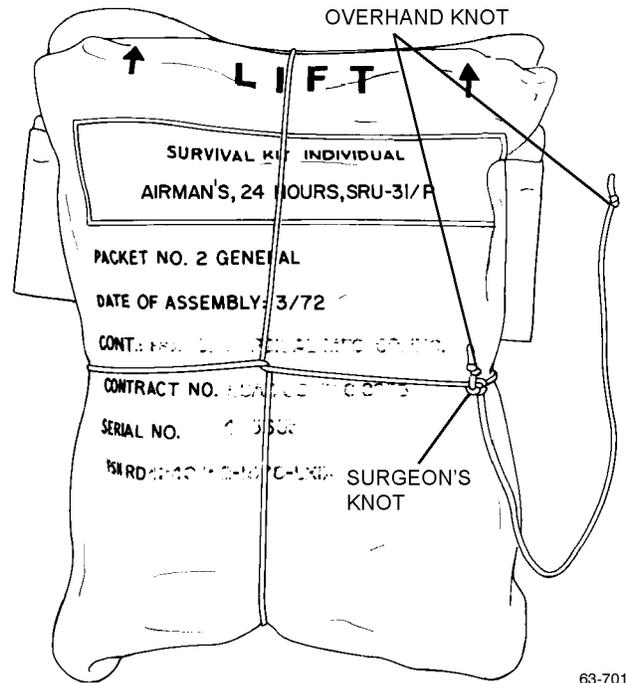


Step 14 - Para 6-22

NOTE

SRU-31/P Packet #1 (Medical) shall be folded approximately in half prior to tying.

15. Using a 40-inch length of nylon cord, tie an overhand knot in both ends. Wrap cord around one packet of SRU-31/P Survival Kit until cord ends meet, then rotate cords 1/4 turn and wrap cords around opposite sides of packet. Tie with a surgeon's knot. The cord-end overhand knot shall be positioned snugly against surgeon's knot.



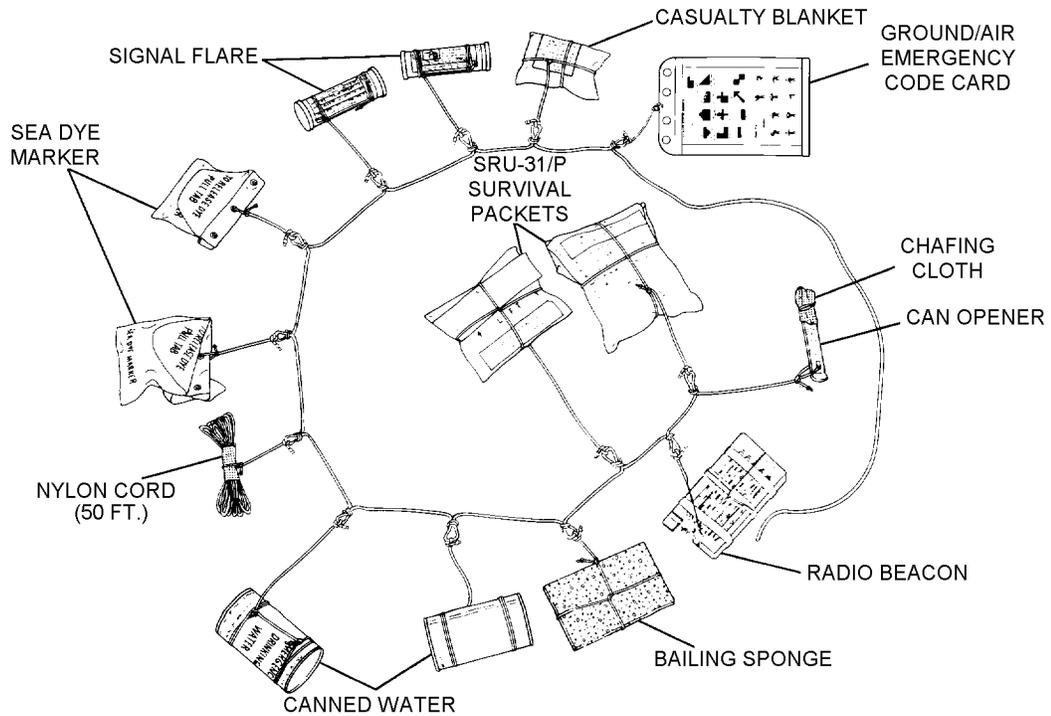
Step 15 - Para 6-22

16. Secure second SRU-31/P packet in the same manner as step 14, except do not fold packet #2.

17. Ensure survival items are properly tied.

18. Using the 140-inch piece of Type I nylon cord, form a 3/4 to 1-inch overhand loop approximately 12 inches from one end. Continue forming loops every 5 inches until there are enough to accommodate all required survival items. Ensure a minimum of 25 ± 1 inches of cord remain after forming the last overhand loop.

19. Tie each item to a loop on the 140-inch nylon cord using a surgeon's knot. Ensure each item's cord-end overhand knot is snugly against surgeon's knot (figure 6-4).



63-1071A

Figure 6-4. Binding Survival Items



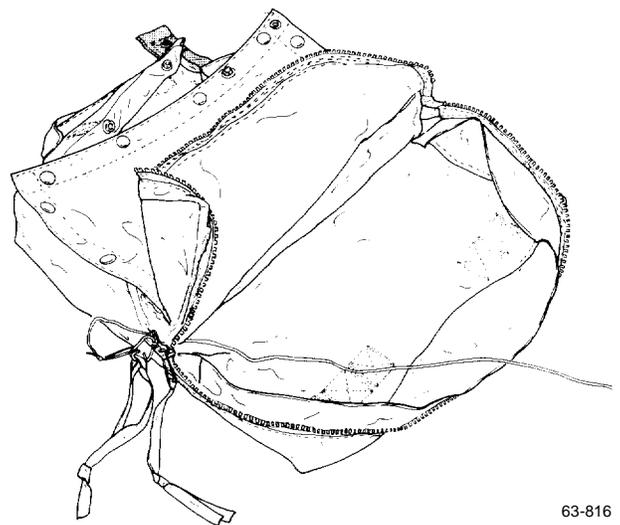
Ensure that pointed end of can opener has adequate chafing cloth to prevent damage to other survival items.

2. Open equipment section of container by opening right slide fastener to the left. Route bitter end of 140-inch nylon cord (with attached survival items) through opening at end of slide fastener chain, and secure to left slide fastener tab with a bowline knot (approximately 2-inch loop) and an overhand knot. Knots shall be positioned snugly against each other.

19. Route 12-inch end of 140-inch nylon cord through hole in can opener and secure with 1-inch loop bowline knot followed by an overhand knot positioned snugly against bowline knot. Wrap can opener with chafing cloth secured by a rubber band.

6-23. SURVIVAL EQUIPMENT PACKING. To pack survival equipment in the standard soft pack, proceed as follows:

1. Place combination carrying case and equipment container on table with slide fastener facing packer and the word EQUIPMENT facing up.



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Step 2 - Para 6-23

NAVAIR 13-1-6.3-1

NOTE

Survival items shall be stowed in a neat and orderly fashion and the items shall be arranged to obtain the flattest possible pack.

The can opener shall be positioned in such a way as to ensure that it cannot damage other survival items.

3. Stow survival items within height and width of equipment section of Combination Carrying Case and Equipment Container.

4. Close equipment section slide fastener.

6-24. LIFERAFT PREPARATION, FOLDING, RIGGING, AND PACKING. To prepare, fold, rig, and pack the LR-1 liferaft in the standard soft pack, proceed as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Thread, Nylon, Type II, Class A, Size 6	V-T-295 NIIN 00-559-5211
As Required	Talc, Technical	MIL-T-50036A

NOTE

All standard soft packs modified by ACC 467 are for use in E-2 series aircraft only.

Unless otherwise indicated, procedures before and after incorporation of ACC 467 are the same for standard soft packs used in E-2 series and C-2A aircraft.

1. Lay raft assembly flat with inside facing upward (step A, figure 6-5).

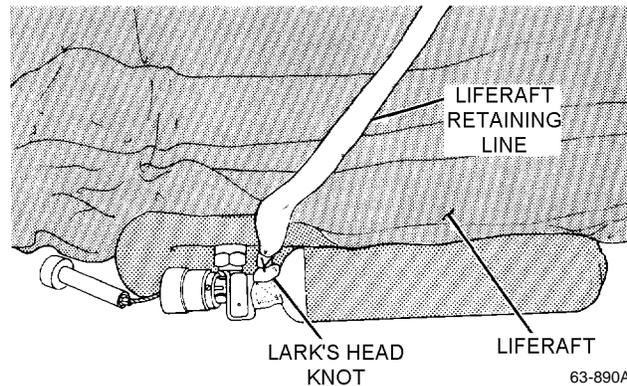
2. Ensure that all trapped air is expelled from raft and oral inflation valve is locked and stowed in pocket prior to folding.

3. Lightly dust entire raft assembly with talc (MIL-T-50036A).

4. Secure sea anchor line in 3-inch bights; fold and stow in pocket (step B, figure 6-5).

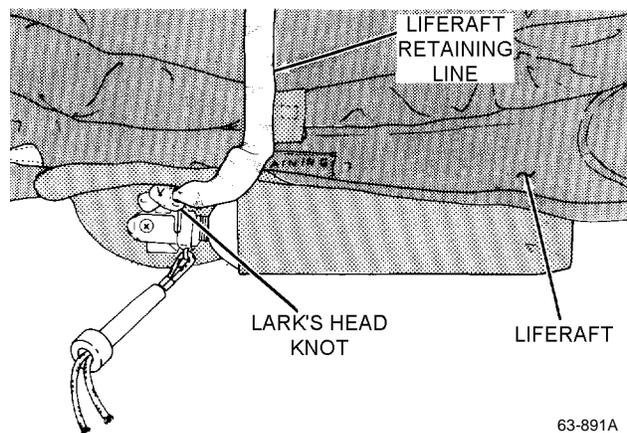
5. Roll and secure weathershield (step C, figure 6-5).

6. (LR-1 with MIL-V-81722, FLU-6/P Inflation Valve) Pass loop end of liferaft retaining line around inflation valve at cylinder neck. Pass end of line with snaphook through loop and pull line tightly, forming a lark's head knot. Tack lark's head knot with two turns of waxed nylon thread, size 6, single. Tie ends with surgeon's knot followed by square knot positioned snugly together.

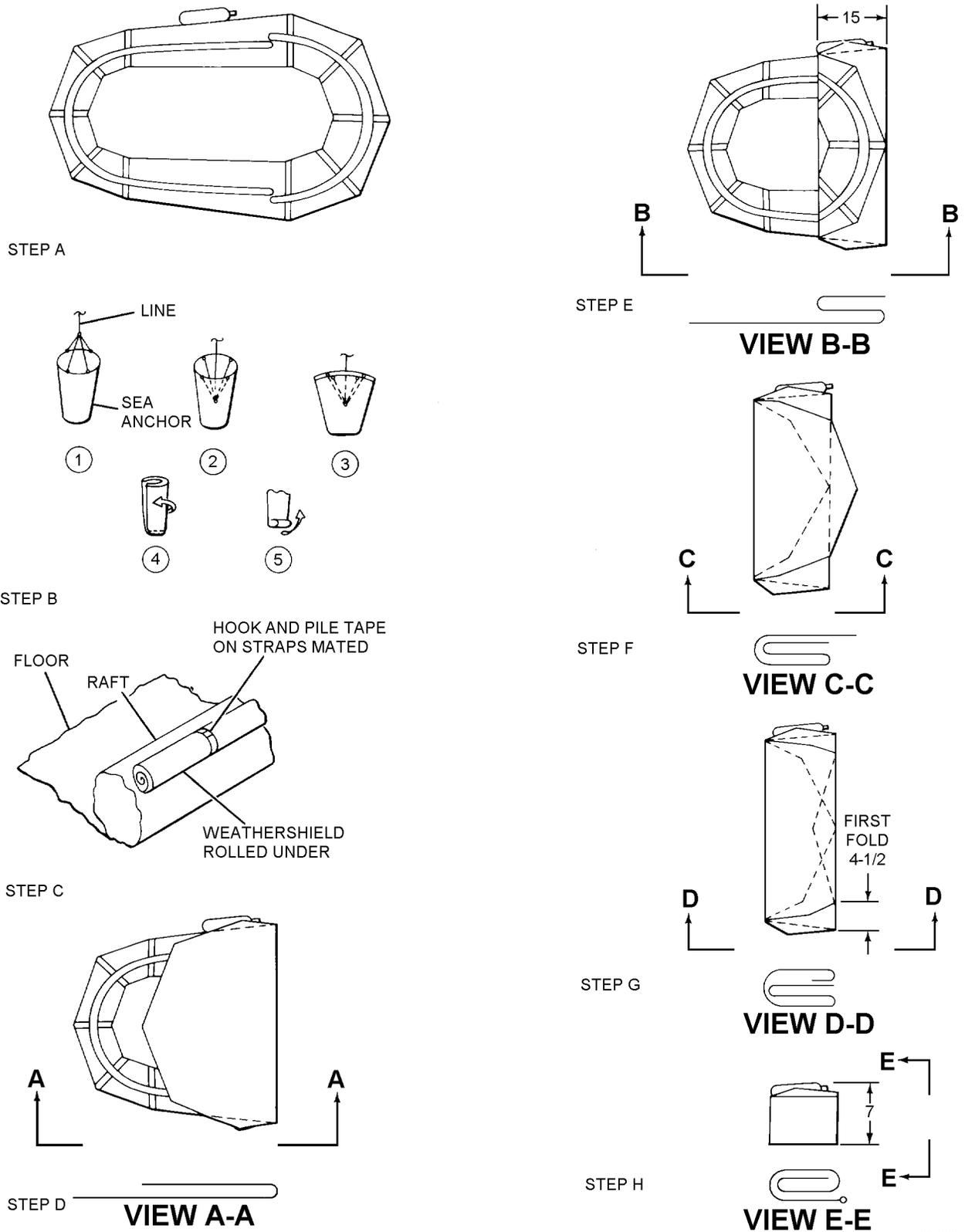


Step 6 - Para 6-24

7. (LR-1 with MIL-V-25492, Type 2, Design II Inflation Valve) Pass loop end of liferaft retaining line around coupling nut between raft and inflation assembly. Pass end of line with snaphook through loop and pull line tightly, forming a lark's head knot. Tack lark's head knot with two turns of waxed nylon thread, size 6, single. Tie ends with surgeon's knot followed by square knot positioned snugly together.



Step 7 - Para 6-24



63-668

Figure 6-5. Folding Liferaft

NAVAIR 13-1-6.3-1

8. Fold liferaft.

a. Fold bow of raft over at a point in line with inflation valve of CO₂ cylinder (step D, figure 6-5).

b. Fold bow portion of raft back, forming an accordion fold approximately 15 inches in width (step E, figure 6-5).

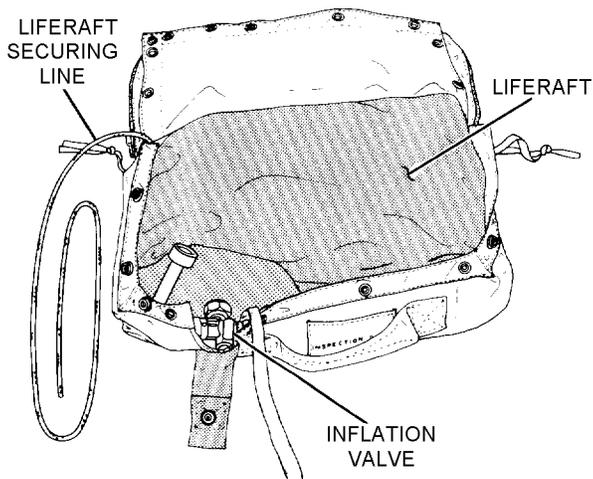
c. Fold stern of raft over on top of previous folds (step F, figure 6-5).

d. Tuck stern of raft under in line with first fold (step G, figure 6-5).

e. Starting at end opposite CO₂ cylinder, form a fold approximately 4 1/2 inches wide, and continue folding raft towards CO₂ cylinder (steps G and H, figure 6-5).

9. Place Combination Carrying Case and Equipment Container on table with raft compartment open and facing packer.

10. Place liferaft into raft compartment so that carbon dioxide cylinder is forward and inflation valve faces left side of container.

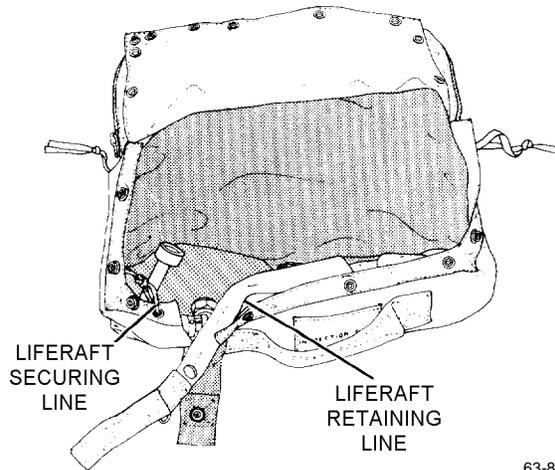


63-669

Step 10 - Para 6-24

11. (Without ACC 467) Accordion-fold liferaft retaining line across top of cylinder. Snaphook shall exit at inflation valve side of container.

12. Tie liferaft securing line to eyelet on lower flap of combination carrying case and equipment container. Secure with a bowline knot followed by an overhand knot.



63-817A

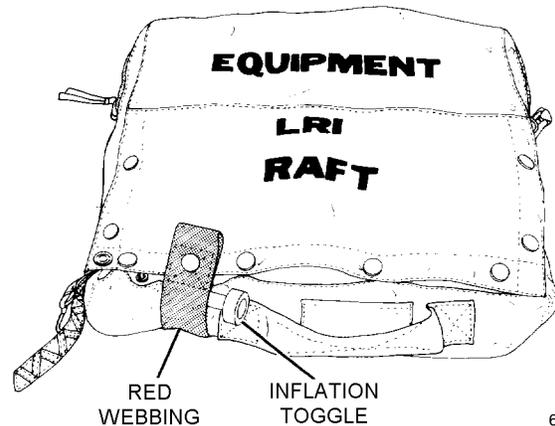
Step 12 - Para 6-24

WARNING

Ensure that liferaft retaining line is not wrapped around or entangled with liferaft inflation pull toggle.

When routing the liferaft retaining line ensure that it will not entangle with liferaft inflation pull toggle when being extracted from the soft pack.

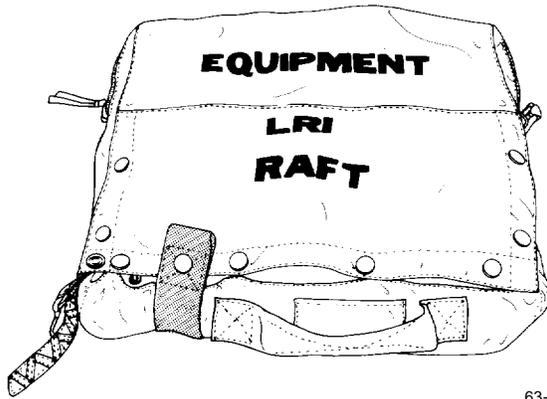
13. (Without ACC 467) (LR-1 with MIL-V-25492, Type 2, Design II Inflation Valve) Snap closed raft compartment of combination carrying case and equipment container. Inflation toggle shall protrude through opening in case at red webbing. Secure snap fastener on liferaft retaining line to mating fastener on container.



63-841

Step 13 - Para 6-24

14. (Without ACC 467) (LR-1 with MIL-V-81722, FLU-6/P Inflation Valve) Stow liferaft inflation toggle in container under carbon dioxide cylinder. Snap closed raft compartment of combination carrying case and equipment container. Secure snap fastener on liferaft retaining line to mating fastener on container.



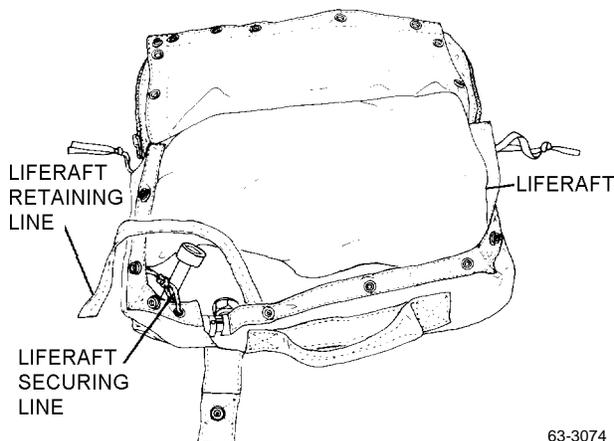
63-670

Step 14 - Para 6-24

WARNING

Ensure liferaft retaining line is not wrapped around or entangled with inflation valve pull toggle.

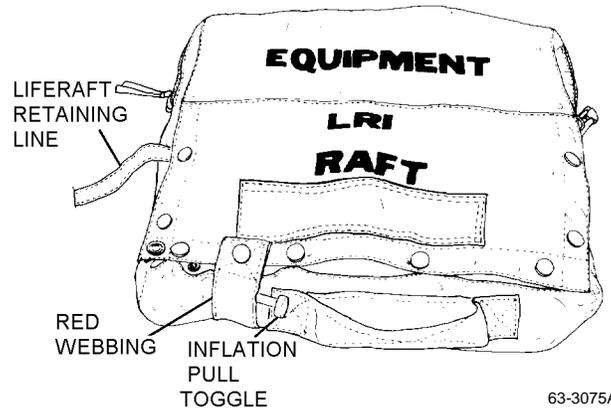
15. (Standard soft pack after ACC 467) Route liferaft retaining line from point of raft attachment over left corner of folded raft and exit carrying case between two closure snap fasteners on left side of carrying case.



63-3074

Step 15 - Para 6-24

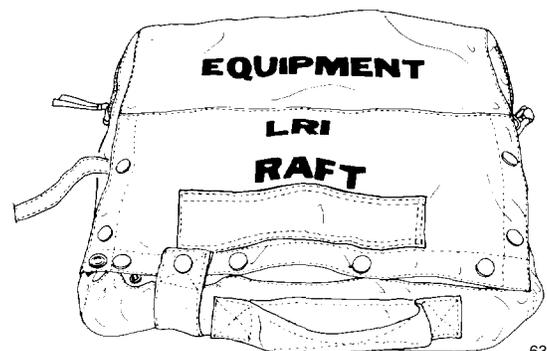
16. (Standard soft pack after ACC 467) Close cover on LR-1 liferaft compartment. Secure closure snap fasteners ensuring that liferaft retaining line exits carrying case between two closure snap fasteners on left side of carrying case. If LR-1 liferaft is equipped with inflation valve MIL-V-25492, Type 2, Design II, the inflation valve pull toggle shall protrude through opening in carrying case at red webbing. Secure red webbing snap fastener to mating fastener on carrying case cover.



63-3075A

Step 16 - Para 6-24

17. (Standard soft pack after ACC 467) If LR-1 liferaft is equipped with MIL-V-81722, FLU-6/P inflation valve, stow liferaft inflation valve pull toggle inside carrying case under carbon dioxide cylinder. Close cover on LR-1 liferaft compartment. Secure closure snap fasteners ensuring that liferaft retaining line exits carrying case between two snap fasteners on left side of carrying case. Secure red webbing snap fastener to mating fastener on carrying case cover.



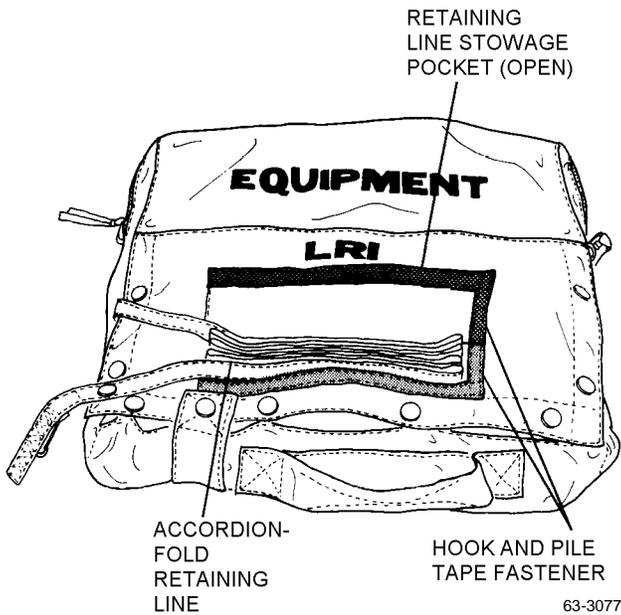
63-3076

Step 17 - Para 6-24

WARNING

Ensure that there is no slack in liferaft retaining line between point where line is attached to raft and retaining line stowage pocket on carrying case cover.

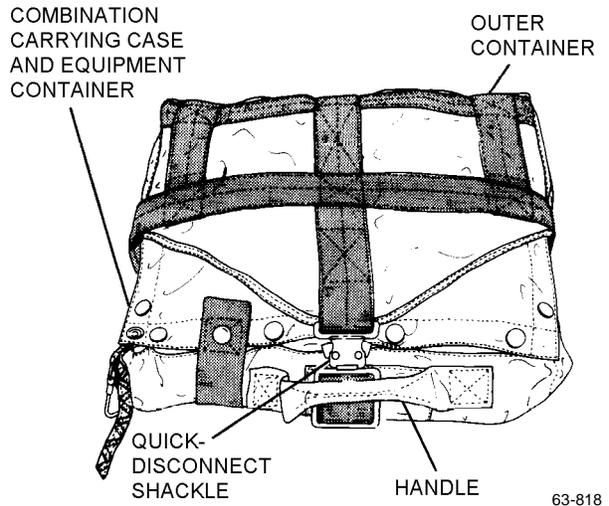
18. (Standard soft pack after ACC 467) Disengage hook and pile tape fastener and open locally fabricated retaining line stowage pocket (see paragraph 6-53 for fabrication instructions). Accordion-fold retaining line from back to front within the confines of the stowage pocket. Leave only enough of snap-hook end of line free so snap fastener on retaining line will mate with fastener on left edge of carrying case cover.



Step 18 - Para 6-24

19. (Standard soft pack after ACC 467) Close retaining line stowage pocket using hook and pile tape fastener. Secure retaining line snap fastener to mating fastener on carrying case cover.

20. (All standard soft pack) Insert combination carrying case and equipment container into outer container and secure quick-disconnect shackle. Shackle shall be under handle.

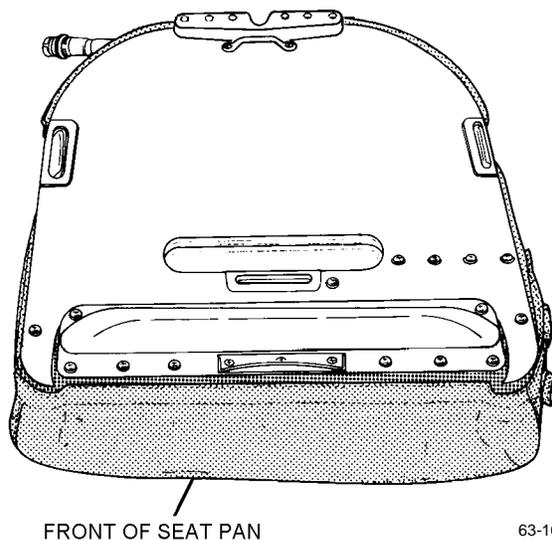


**Step 20 - Para 6-24
(Before ACC467 Shown)**

21. Make necessary entries on appropriate form in accordance with OPNAVINST 4790.2 Series.

6-25. ATTACHMENT OF SEAT PAN TO SOFT PACK. To attach seat pan to the soft pack container, proceed as follows:

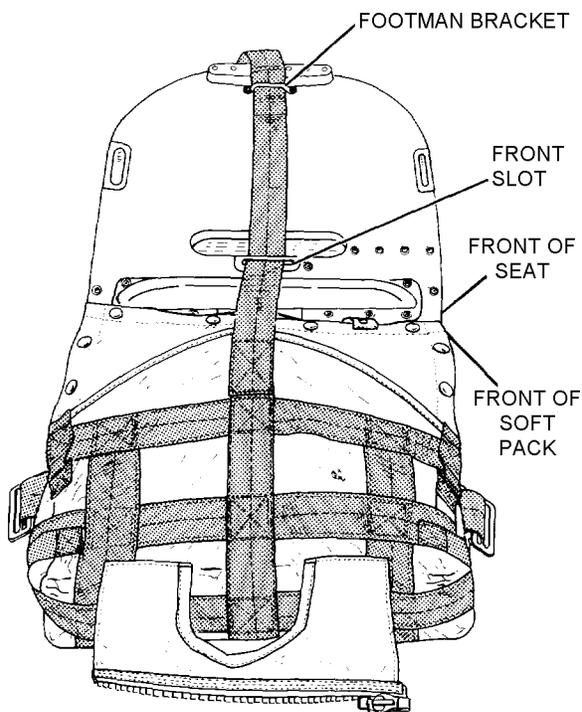
1. Place seat pan upside down on table.



Step 1 - Para 6-25

2. Place soft pack and container top side up with front of soft pack facing front of seat (figure 6-6).

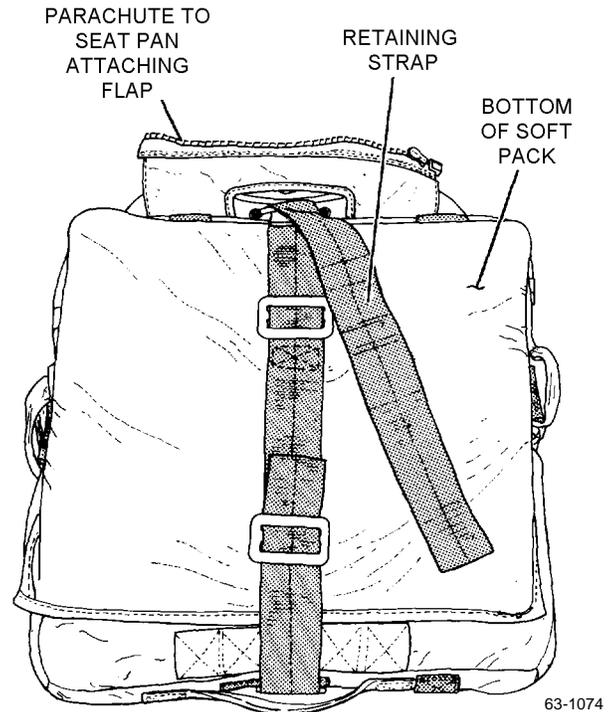
3. Reeve retaining strap from front of soft pack through front slot in seat pan, then through footman bracket on rear of seat pan (figure 6-6).



63-1073

Figure 6-6. Reeving Retaining Strap

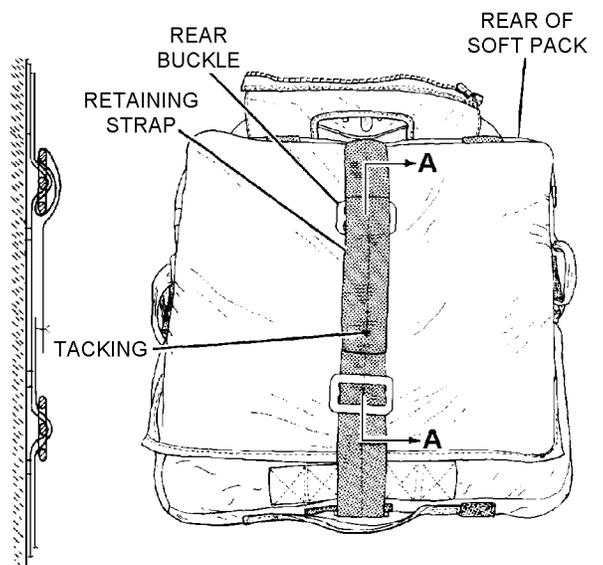
4. Rotate soft pack over seat pan, then run strap around to bottom of soft pack container going through opening in parachute to seat pan attaching flap.



63-1074

Step 4 - Para 6-25

5. Reeve strap through rear buckle of soft pack container. Tack with two turns of waxed, size 6 nylon thread (V-T-295). Tie ends with a surgeon's knot followed by a square knot. Tack through strap only.



SECTION A-A
(ENLARGED FOR CLARITY)

63-1075

Step 5 - Para 6-25

Section 6-4. Turnaround/Daily/Preflight/Postflight/Transfer/Special/ Conditional Inspection

6-26. GENERAL.

6-27. The Turnaround, Daily, Preflight, Postflight, or Transfer Inspections consist of a visual type inspection performed in conjunction with the aircraft inspection requirements for the aircraft in which the seat pan/soft pack is installed.

6-28. Conditional Inspection is an unscheduled inspection required as the result of a specific situation or set of conditions, e.g., hard landing inspections or any inspection directed by higher authority that is not ordered in a technical directive.

6-29. The Special (7/14 day, etc.) Inspection shall be performed on inservice seat pans/soft packs installed in aircraft and in ready room issue. The Daily Inspection shall be included when performing the Special (7/14 day, etc.) Inspection. This inspection shall be performed by Organizational Level maintenance PR personnel or by aircrew/line personnel who have been found to be qualified by a PR shop supervisor. This inspection shall be conducted only under adequate lighting conditions. The seat pans/soft packs assigned to VA type aircraft shall be inspected every 7 days. Upon completion of inspections, the inspector's full name and the current date shall be recorded on the Preflight/Daily/Inflight/Postflight/Maintenance Record Card. To perform the inspection, proceed as follows:

NOTE

If any damage or discrepancy is found that cannot be corrected by Organizational Level maintenance, the survival kit assembly shall be forwarded to the Intermediate Maintenance Activity (IMA).

1. Inspect cushion for secure attachment, rips, tears, and loose or frayed stitching.

2. Inspect oxygen gage for FULL indication.

3. Inspect manual oxygen release for secure attachment.

4. Ensure that tag assembly, installed by manufacturer for shipping purposes, has been removed and discarded prior to placing emergency oxygen cylinder assembly in service.

5. Inspect quick-disconnect for secure attachment.

6. Inspect hoses for cracks and deterioration.

7. Inspect soft pack for attachment to seat pan.

8. Inspect harness assemblies for loose or frayed stitching, webbing, and cracked or broken hardware.

9. Inspect soft pack fabric for cuts, tears, deterioration, and abrasion.

10. Inspect soft pack seams for proper adhesion or stitching.

11. Inspect soft pack straps and handles for security and wear.

12. Inspect any other parts for wear, damage, and security.

13. Inspect container and/or case for stains, dirt, and general condition.

6-30. If discrepancies are found or suspected Maintenance Control shall be notified.

6-31. Seat pans/soft packs which do not pass inspection and cannot be repaired in the aircraft shall be removed in accordance with applicable aircraft manual and replaced with a Ready For Issue (RFI) seat pans/soft packs. Non-RFI seat pans/soft packs shall be forwarded to the nearest maintenance activity having repair capability for corrective action.

Section 6-5. Acceptance/Phased/SDLM/PDM Inspection

6-32. GENERAL.

6-33. An acceptance inspection shall be performed on a survival kit when it is placed into service or at the time a reporting custodian accepts a newly assigned aircraft from SDLM/PDM or other major D-level rework. The Phased/SDLM/PDM inspection cycle of the survival kit shall be 448 days. In no case, however, shall the phased interval exceed 448 days. The battery test inspection cycle for the AN/URT-33A radio beacon is dependent on the type of battery installed. Refer to NAVAIR 16-30URT33-1 for battery test inspection cycles and requirements. For acceptance inspection purposes, verification of pyrotechnics and configuration is accomplished by visual record examination only. Disassembly beyond the daily inspection requirements of applicable publications is not required. Activities may elect to increase the depth of the inspection if equipment condition, visual external inspection, or record examination indicates such action is warranted.

6-34. VISUAL INSPECTION. This inspection shall be performed prior to the leak check of the seat pan/soft pack.

1. Visually check seat pan for following:

- a. Inspect cushion for secure attachment, rips, tears, and loose or frayed stitching.
- b. Inspect manual oxygen release for condition and security of attachment.
- c. Inspect oxygen gage for FULL indication.
- d. Ensure that tag assembly, installed by manufacturer for shipping purposes, has been removed and discarded prior to placing emergency oxygen cylinder assembly in service.
- e. Inspect snap fasteners for security and corrosion.
- f. Inspect quick-disconnect for secure attachment.
- g. Inspect hoses for cracks or deterioration.

2. Visually check the soft pack survival kit for following:

- a. Inspect fabric for cuts, tears, deterioration, and abrasion.
- b. Inspect seams for proper adhesion or stitching.
- c. Inspect straps and handles for security and wear.

d. Inspect any other parts for wear, damage, and security.

e. Inspect all hardware for security of attachment, corrosion, damage, wear and, if applicable, ease of operation.

f. Inspect container case for stains, dirt, proper markings, and general condition.

g. Inspect oxygen hose for cracks or deterioration. Refer to Chapter 4 of this manual and replace as required.

h. Inspect oxygen gage for full indication.

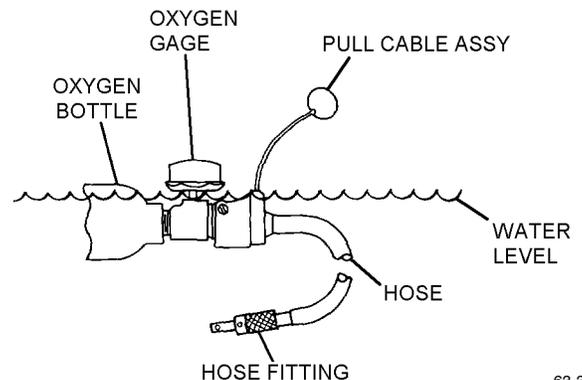
6-35. LEAK CHECK. This check shall be performed anytime a kit is placed in service, after any adjustment procedures, or when equipment condition, visual external inspection, or record examination indicates such action is warranted to determine the condition of the kit. To perform a leak check proceed as follows:

CAUTION

Do not submerge oxygen gage or pull cable assembly.

Discontinue leak test if seat pan fails to pass any steps of test procedures. Repair malfunction before continuing procedures or damage to seat pan may result. After repair, the entire test procedure shall be performed.

1. Charge oxygen cylinder to 1800 to 2000 psi and submerge in water for at least 5 minutes. A release of bubbles from hose or valve after 1 minute is not allowed.



Step 1 - Para 6-35

2. Dry assembly with dry, clean compressed air.

6-36. PURGING AND CHARGING EMERGENCY OXYGEN SYSTEM. To purge and charge the emergency oxygen cylinder proceed as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Oxygen, Aviator's Breathing, Liquid and Gas	MIL-O-27210
1	Nipple, Break Off, Emergency Oxygen Cylinder Valve	MS21965-1
1	O-ring	186A102 (CAGE 20846)



Servicing the emergency oxygen system is accomplished only after removal of the personnel parachute and seat pan from the aircraft.

Since maintenance procedures require use and release of oxygen, ensure maintenance area is clean, dust and grease/oil-free. Use only grease/oil-free tools and equipment.

NOTE

Index numbers, which appear in parentheses in the following steps, pertain to figure 6-8 unless otherwise noted.

1. If seat pan assembly has not been removed from aircraft, remove personnel parachute and seat pan in accordance with applicable maintenance manual.

2. Remove four screws (4) holding pull cable assembly housing (2 or 3) in place. Slide pull cable assemble along hose so that it is well out of way.

3. Unscrew bushing (6) from valve assembly (9) and withdraw hose, break-off nipple (7), and bushing from valve body.

4. Remove fractured break-off nipple from hose, ensuring that both pieces are removed if nipple has been separated at fracture.

5. Push a new break-off nipple into end of hose until hose end contacts flanged face of break-off nipple.

6. Grasp hose just above bushing and work bushing down around hose until end of bushing contacts flanged face of break-off nipple.

7. Invert assembly and remove oxygen flow controller (11).

8. Examine interior of valve assembly (9). If cleaning is necessary, blow out with aviator's breathing oxygen from supply cylinder.

9. Reinstall oxygen flow controller in valve assembly.

10. Reinstall assembly of bushing, hose, and break-off nipple in valve assembly. Tighten only until all parts are snugged together. Do not overtighten.

11. Connect emergency oxygen cylinder bushing assembly (12) to a supply cylinder of aviator's breathing oxygen by using a suitable charging adapter. Turn bushing (6) 1/4 turn counterclockwise.

12. Open oxygen supply cylinder valve slightly, allowing oxygen to flow into emergency oxygen cylinder until pressure gage (10) shows a low pressure as indicated by pointer movement of not more than 1/8 inch. Close supply cylinder valve.

13. Loosen nut at inlet end of charging adapter, permitting oxygen to escape. Tighten nut.

14. Repeat steps 12 and 13 two times.

WARNING

Observe filling stages as rapid application of oxygen pressure creates heat which may result in fire or explosion.

Allow no less than 3 minutes for each filling stage and 2 minute intervals for cooling between stages.

NOTE

If kit is to be stored, the emergency oxygen bottle shall be depleted or filled to 200 PSI (when needle on gage bisects E on refill). For shipping, fill or deplete to 25 PSI using the gage on the oxygen refill cylinder.

15. Charge emergency oxygen system in stages in accordance with [table 6-4](#) until pressure gage indicates correct pressure for existing ambient temperature ([table 6-5](#)).

16. When charging is completed, tighten bushing (6) to 15 ft-lbs.

17. Remove charging adapter from bushing assembly (12) and reinstall cap and seal assembly (11).

■ 18. Perform leak check in accordance with [paragraph 6-35](#).

19. If the personnel parachute and seat pan assembly were removed in [step 1](#), reinstall using applicable maintenance manual.

Table 6-4. Charging Stages

Stage	PSI
1	500
2	1000
3	1500
4	1800
5	2000

Table 6-5. Ambient Air Temperature Vs Charging Pressures

Ambient Air Temperature		Charging Pressure
°F	°C	PSI
0	-18	1550-1750
10	-12	1600-1775
20	-7	1625-1800
30	-1	1675-1850
40	5	1700-1875
50	10	1725-1925
60	16	1775-1975
70	21	1800-2000
80	27	1825-2050
90	32	1875-2075
100	38	1900-2125
110	43	1925-2150
120	49	1975-2200
130	54	2000-2225

Section 6-6. Maintenance

6-37. GENERAL.



Keep working area clean and free of oil, grease, and dirt. Do not attempt to perform any component removal with the oxygen system pressurized.

6-38. This section contains procedures for troubleshooting, disassembly, cleaning, inspection of disassembled parts, repair or replacement of parts, assembly, and adjustment. Disassemble only to extent required to perform task. Work shall be performed in a clean, dust and grease-free area.

6-39. TROUBLESHOOTING.

6-40. Where troubles or operating malfunctions are encountered, locate probable cause and remedy using [table 6-6](#).

6-41. DISASSEMBLY.

6-42. Disassemble the seat pans using the key index numbers assigned to [figures 6-7](#) and [6-8](#) as a reference.

NOTE

Discard all O-rings, seals, cotter pins, and Teflon sealing tape removed from oxygen connections during disassembly. Discard any threaded inserts, rivets, rubber pads,

seals, molding, or hook and pile fastener tape removed during disassembly of the seat pans.

6-43. CLEANING.

6-44. To clean the disassembled oxygen and non-oxygen components of the kit (except for cushions and fabric components) refer to [NAVAIR 13-1-6.4-1](#).

6-45. CLEANING CUSHIONS AND FABRIC COMPONENTS. Clean cushions and all fabric components as follows:

Materials Required		
Quantity	Description	Reference Number
As Required	Cleaning Compound, Aircraft Surface, Alkaline Waterbase	MIL-C-25769
As Required	Detergent, General Purpose	MIL-D-16791
As Required	Talc, Technical	MIL-T-50036A

NOTE

If using cleaning compound (MIL-C-25769), combine one part compound to three parts water. If using general purpose detergent, follow directions on container.

1. Prepare detergent or cleaning compound (MIL-C-25769) solution.

Table 6-6. Troubleshooting

Trouble	Probable Cause	Remedy
Low or zero indication on pressure gage.	Oxygen bottle empty.	Charge bottle.
	Gage defective.	Replace gage.
	Components leaking.	Tighten connections or replace.
Emergency oxygen does not actuate when manual oxygen release or emergency release is pulled.	Cable broken.	Replace cable.
	Cable not connected to yoke.	Connect cable to yoke.

2. Apply solution to soiled area with spray or sponge.

3. Allow solution to remain on surface for a few minutes, then scrub with soft brush or cloth.

4. Rinse surface thoroughly with water; wipe with cloth or sponge.

NOTE

Repeat [steps 1 through 4](#) until material is clean.

5. Repeat [step 4](#) until material is free from all solution.

6. Allow material to dry thoroughly.

7. (Soft pack survival kits) Dust interior surfaces with light coating of talc.

6-46. INSPECTION.

6-47. INSPECTION OF DISASSEMBLED PARTS. Inspect the disassembled parts of the seat pan for damage, distortion, corrosion, and other damage in accordance with [table 6-7](#). Inspect soft pack container markings as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Ink, Marking, Laundry, Black	TT-I-542

1. Compare markings on container with markings listed in [table 6-8](#).

2. Paint over incorrect markings using black ink.

3. Add correct marking as close as possible to specified location using black ink.

Table 6-7. Inspection

Component	Task
Fabric Cover	Check for rips, tears, and loose or frayed stitching.
	Check slide fastener for security of attachment and trouble-free operation.
	Check for security of snap fasteners.
Oxygen Bottle	Inspect end fitting for thread damage.
	Check bottle for bulges, cracks, dents, nicks, gouges, and scratches which penetrate metal. Carefully inspect areas adjacent to welds.
Manual Oxygen Release	Check ball for security of attachment.
	Check cable for broken or frayed strands.
	Check for proper routing of cable.
Oxygen Gage	Check for cracked or missing glass, bent or broken needle and stop, or jammed needle.
Survival Equipment	Inspect in accordance with NAVAIR 13-1-6.5.

Table 6-8. Soft Pack Case/Container Markings (Note 1)

Case/Container	Marking	Location	Letter Height (Inch)
Standard Soft Pack Outer Container	STANDARD SOFT PACK OUTER CONTAINER	Main panel on either side of adjustable strap.	7/8
Combination Carrying Case and Equipment Container	EQUIPMENT	Upper side of equipment compartment	1
	LIFERAFT	Cover flap of raft compartment	1
Container	EQUIPMENT	Main panel	1
	RSSK OR HSSP	Main panel	1/2

Notes: 1. All markings shall be stamped or stenciled with waterproof black ink. All words enclosed by brackets, in the column headed Marking, shall not be stenciled on the equipment; they are to be regarded as instructions only.

6-48. REPAIR AND REPLACEMENT.

of loose or open seams, broken stitches, and small rips or tears.

6-49. Repair or replace parts of survival kit assembly using following guidelines:

2. Replace all individual components that fail to pass inspection except where a repair procedure is indicated. Refer to source code listing (SM&R Code) in the [numerical index](#) of the [Illustrated Parts Break-down](#) to aid in determining replaceable components.

1. Repair of seat pan shall be limited to sewing

Section 6-7. Fabrication

6-50. GENERAL.

Materials Required

6-51. This section contains instructions for fabrication of tools and components that can be manufactured by local activities.

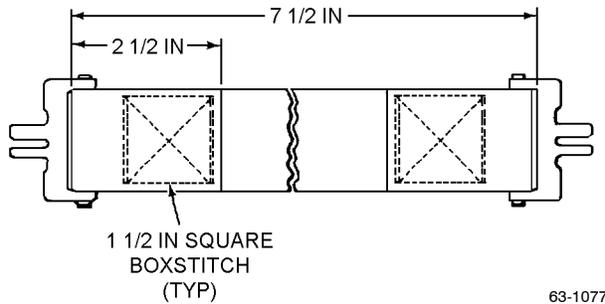
Quantity	Description	Reference Number
2	Release Assembly Lapbelt Fitting	015-11366-1 (CAGE 99449)
24 Inches	Webbing, Nylon, Type XXVII, 1-23/32 inches wide	MIL-W-4088 NIIN 00-530-1489
As Required	Thread, Nylon, Type II, Class A, Size 6	V-T-295 NIIN 00-559-5211

6-52. BRAKE RIDER'S STRAP. To fabricate a brake rider's strap proceed as follows:

1. Cut a piece of nylon webbing 24 inches in length.

2. Sear exposed ends of webbing.

3. Secure fittings with 1 1/2 inch square box-stitch. All stitching shall be ASTM-D-6193, Type 301, 4 to 6 stitches per inch, and backstitch 1/2 inch minimum.



Step 3 - Para 6-56

6-53. (E-2 SERIES AIRCRAFT ONLY) LIFERAFT RETAINING LINE STORAGE POCKET FABRICATION AND INSTALLATION. To fabricate and install liferaft retaining line on standard soft pack, proceed as follows:

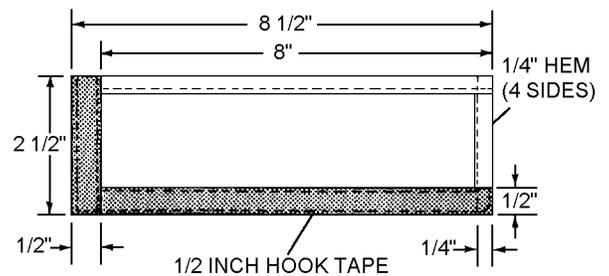
Materials Required

Quantity	Description	Reference Number
As Required	Cloth, Coated	MIL-C-19002 NIIN 00-935-1759 (CAGE 81349)
As Required	Tape, Fastener, Hook	MIL-F-21840 NIIN 00-926-4931 (CAGE 81349)
As Required	Tape, Fastener, Pile	MIL-F-21840 NIIN 00-926-4930 (CAGE 81349)
1	Eyelet, Metallic	MS27980-8B NIIN 01-023-3843 NIIN 00-276-4978 (CAGE 96906)
1	Stud, Snap	MS27980-7B NIIN 00-842-1879 NIIN 00-276-4934
As Required	Thread, Nylon Type II, Class A, Size E	V-F-295 NIIN 00-244-0609

NOTE

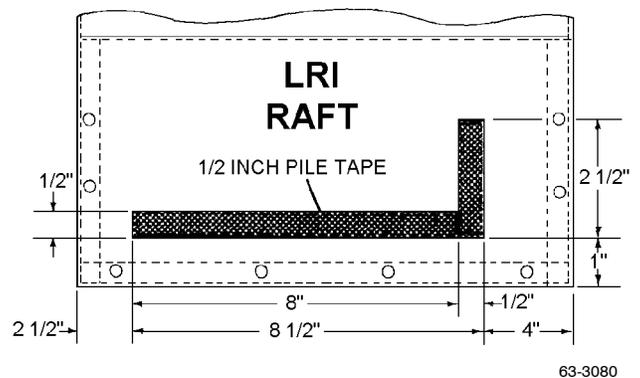
All stitching shall be ASTM-D-6193, Type 301, 8 to 10 stitches per inch, backstitched 1/2 inch minimum using size E nylon thread.

1. Measure and cut one piece of coated cloth 9 inches long by 3 inches wide. Fold edges in 1/4 inch and stitch in place on all four sides. Apply 1/2 inch wide hook tape along two adjoining sides of the underside of liferaft retaining line pocket pattern. Stitch each adjoining strip of tape along all edges.



Step 1 - Para 6-57

2. Apply 1/2 inch wide pile tape to outside of carrying case raft compartment cover using dimensions indicated. Stitch each adjoining strip of tape along all edges.



Step 2 - Para 6-57

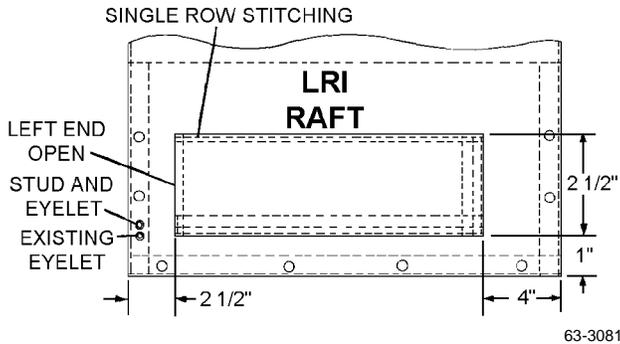
NAVAIR 13-1-6.3-1

3. Carefully match hook and pile tape on pocket pattern and carrying case cover. Sew pocket to top of cover using single row of stitches along trailing edge of pocket. Leave left end of pocket open.

4. Install stud and eyelet portion of snap fastener approximately one inch from leading edge of cover and 1/2 inch from left edge.

NOTE

Position of existing retaining line snap fastener eyelet and stud may cause slight adjustment to proposed position of new stud and eyelet.



Step 3 - Para 6-57

Section 6-8. Illustrated Parts Breakdown

6-54. GENERAL.

6-55. This section lists and illustrates the assemblies and detail parts of the ventilated seat pan manufactured by the Grumman Corporation (CAGE 26512).

6-56. The Illustrated Parts Breakdown should be used during maintenance when requisitioning and identifying parts.

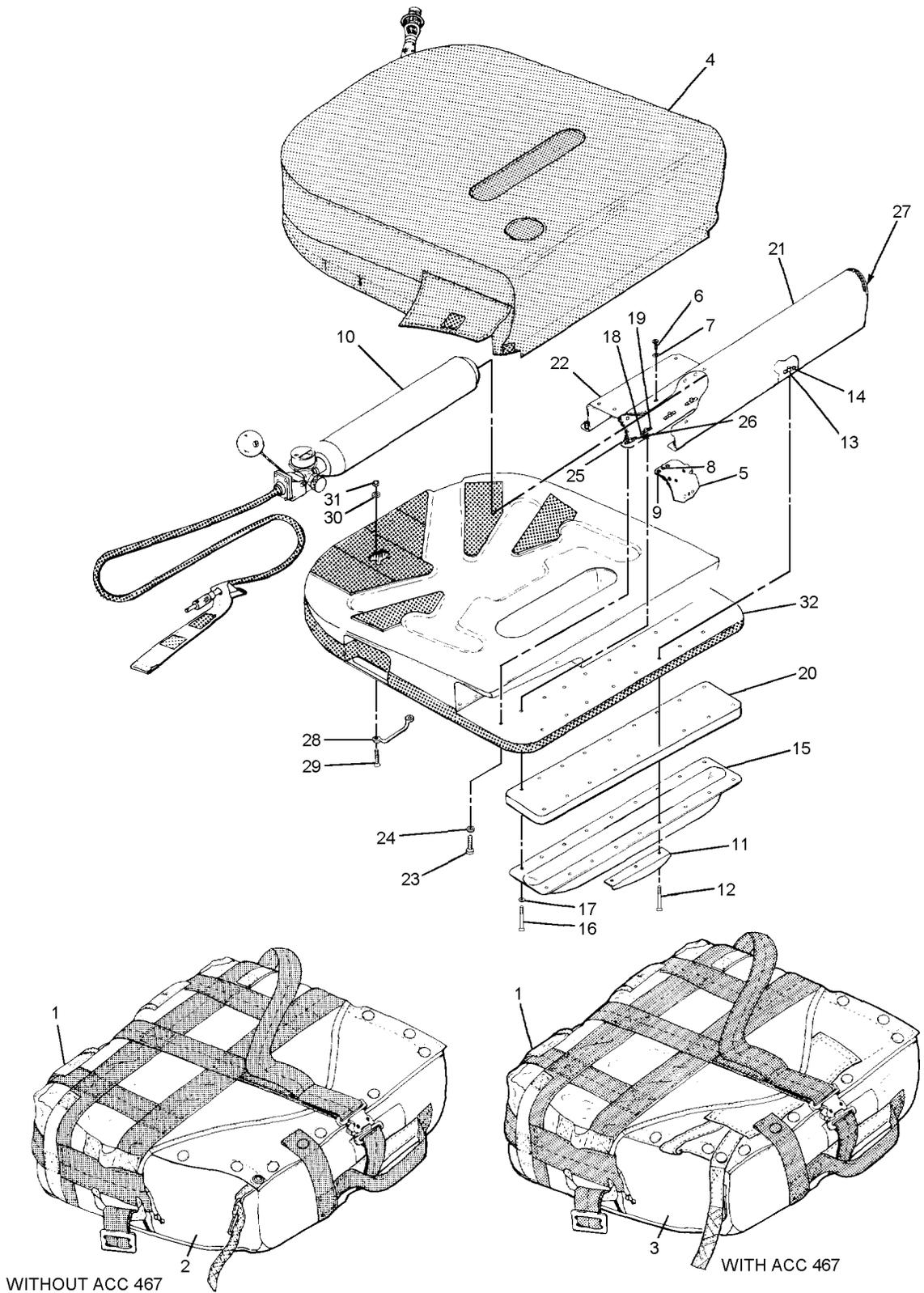


Figure 6-7. Ventilated Seat Pan and Standard Soft Pack Assembly

NAVAIR 13-1-6.3-1

Figure and Index Number	Part Number	Description 1 2 3 4 5 6 7	Units Per Assembly	Usable On Code
6-7	123AB11592-1	SEAT PAN ASSEMBLY, Ventilated	REF	
-1	68A77D2-1	. . CONTAINER, Outer, standard soft pack, (30003)	1	
-2	68A77H3-1	. . LIFERAFT AND EQUIPMENT CONTAINER, LR-1, (30003) (Without ACC 467)	1	
-3	68A77H3-2	. . LIFERAFT AND EQUIPMENT CONTAINER, LR-1 (30003) (With ACC 467) (E-2 series aircraft only)	1	
		. . SEAT PAN BASE ASSEMBLY	1	
-4	123AB50501-1	. . CUSHION ASSEMBLY, Ventilated	1	
-5	123AB50502-3	. . COVER PLATE, Oxygen bottle housing (ATTACHING PARTS)	1	
-6	MS27039-0806	. . SCREW	2	
-7	AN960-D8	. . WASHER	2	
-8	MS21069-L08	. . NUT PLATE	2	
-9	MS20426-AD3	. . RIVET ---*---	4	
-10	214A2	. . CYLINDER ASSEMBLY, Emergency oxygen (See figure 6-8 for BKDN)	1	
-11	123AB11594-13	. . ANGLE (ATTACHING PARTS)	1	
-12	MS24694-S19	. . SCREW	3	
-13	MS21069-L08	. . NUT PLATE	3	
-14	MS20426-AD3	. . RIVET ---*---	6	
-15	123AB11595-11	. . SUPPORT (ATTACHING PARTS)	1	
-16	MS27039-0823	. . SCREW	15	
-17	AN960-D8	. . WASHER	15	
-18	MS21069-L08	. . NUT PLATE	15	
-19	MS20426-AD3	. . RIVET ---*---	30	
-20	123ABH10037-3	. . PLATE, Spacer	1	
-21	123AB50502-11	. . HOUSING, Oxygen bottle	1	
-22	123AB50502-1	. . HOUSING, Oxygen hose (ATTACHING PARTS FOR INDEX ITEMS 21 AND 22)	1	
-23	MS27039-0814	. . SCREW	8	
-24	AN960-D8	. . WASHER	8	
-25	MS21069-L08	. . NUT PLATE	8	
-26	MS20426-AD3	. . RIVET ---*---	16	
-27	MS21266-1N	. . . GROMMET, Plastic, edging	3	

Figure and Index Number	Part Number	Description	Units Per Assembly	Usable On Code
		1 2 3 4 5 6 7		
6-7-28	GL514A1	. . FOOTMAN BRACKET (ATTACHING PARTS)	1	
-29	MS24694-S55	. . SCREW	2	
-30	AN960-D10	. . WASHER	2	
-31	MS21042-L3	. . NUT	2	
		---*---		
-32	123ABH10037- 501	. . SEAT PAN BASE PLATE	1	

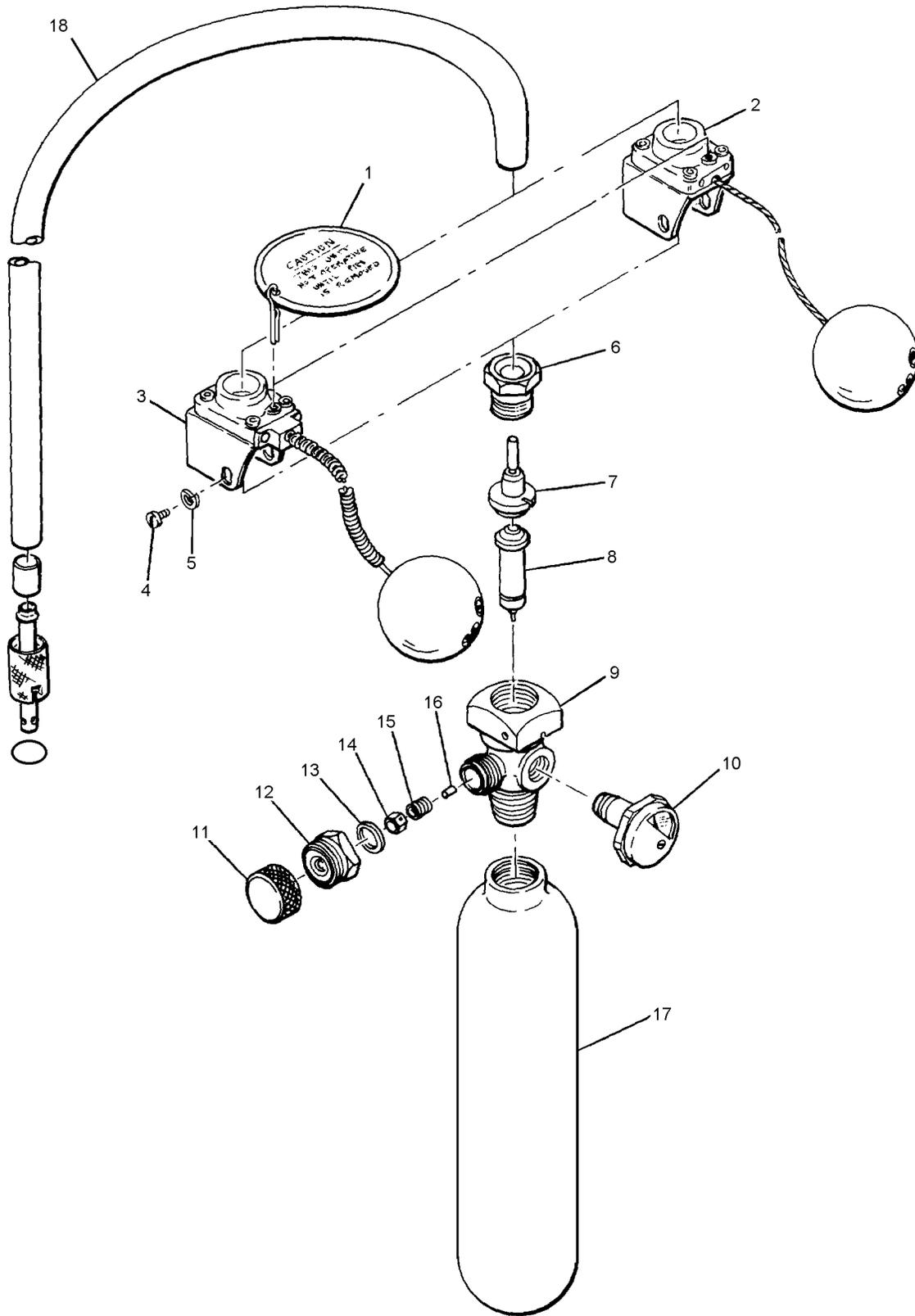


Figure 6-8. Emergency Oxygen Bottle

006008

Figure and Index Number	Part Number	Description 1 2 3 4 5 6 7	Units Per Assembly	Usable On Code															
6-8	214A2	CYLINDER ASSEMBLY, Emergency oxygen, (20846) (See figure 6-7 for NHA)	REF																
-1	MS21964-17	. TAG ASSEMBLY (Note 1)	1																
-2	MS21964-13	. HOUSING, Pull cable assembly open type (6 inches)	1																
	MS21964-14	. HOUSING, Pull cable assembly open type (16.25 inches)	1																
-3	MS21964-15	. HOUSING, Pull cable assembly housed type (ATTACHING PARTS)	1																
-4	MS35214-38	. SCREW	4																
-5	AN936A8	. WASHER, Lock ---*---	4																
-6	MS21964-16	. BUSHING, Nipple	1																
-7	MS21965-1	. NIPPLE, Break off	1																
-8	MS29597-1	. CONTROLLER, Oxygen flow	1																
-9	MS21964	. VALVE ASSEMBLY	1																
-10	MIL-G-7601	. GAGE, Type L-2	1																
-11	MS21964-9	. CAP AND SEAL ASSEMBLY, Side check	1																
-12	MS21964-8	. BUSHING ASSEMBLY, Side check	1																
-13	MS21964-10	. BUSHING GASKET, Side check	1																
-14	MS21964-7	. RETAINER ASSEMBLY, Side check	1																
-15	MS21964-6	. SPRING, Side check	1																
-16	214A21	. FILTER ASSEMBLY (20846)	1																
-17	MS26545	. CYLINDER, Emergency oxygen (Note 2)	1																
-18	MS21964-18	. HOSE AND FITTING ASSEMBLY, 28 inch	1																
<p>Notes: 1. Tag assembly is for shipping purposes only and should be removed and discarded when placing emergency oxygen cylinder assembly in service.</p> <p>2. When ordering, the P/N will break down as follows:</p> <div style="text-align: center; margin-left: 100px;"> <table style="border-collapse: collapse; margin: auto;"> <tr> <td style="border: none; padding: 0 10px;">MS26545</td> <td style="border: none; padding: 0 10px;">A</td> <td style="border: none; padding: 0 10px;">2</td> <td style="border: none; padding: 0 10px;">X</td> <td style="border: none; padding: 0 10px;">0025</td> </tr> <tr> <td style="border: none; padding: 0 10px;"> </td> </tr> <tr> <td style="border: none; padding: 0 10px;">MS NUMBER</td> <td style="border: none; padding: 0 10px;">Type thread</td> <td style="border: none; padding: 0 10px;">Class</td> <td style="border: none; padding: 0 10px;">Usage Code</td> <td style="border: none; padding: 0 10px;">Nominal Capacity</td> </tr> </table> </div>					MS26545	A	2	X	0025						MS NUMBER	Type thread	Class	Usage Code	Nominal Capacity
MS26545	A	2	X	0025															
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