

\*\* WONDERHOG VECTOR \*\*  
\*\* MAIN PACKING INSTRUCTIONS \*\*

RELATIVE WORKSHOP, INC.  
1725 N. LEXINGTON AVE.  
DeLAND, FLA. 32724

September 6, 1983

page 1 of.....21

## VECTOR MAIN PACKING INSTRUCTIONS

---

### ASSEMBLY:

1. Install the bag and pilotchute onto the main canopy. Make sure that the bag is free to slide up and down the bridle between the top of the canopy and the bag stop on the bridle.
2. Install the main risers on the canopy. Make sure you maintain line continuity.

### PACKING:

1. Pack the deployment bag "wide". Concentrate on filling the sides and corners so that you achieve even distribution within the bag.
2. "Walk on the bag until the middle is no fatter than the sides.
3. Prop the bag up loosely in the container, with the lines at the bottom. Route the risers, on edge, down the sides of the container, being careful not to entangle excess lines with connector links. Make sure the sheathing loop at the top of main container is not under bag.
4. Now tuck the lines well down into the container, then push the top of the bag down into place. Clear the risers and toggles down the side of the bag. This will enable the bag to fit into the container more neatly.
5. Kneel on the center of the bag and pull up on the side flaps until the back of the bag is flush with the back of the reserve container and the entire unit will present a streamlined profile.
6. Kneel on the floor facing the bottom of the bag and lift the unit onto your knees.
7. Insert pull-up cord through the sheathing loop first, then the bottom flap, and top flap grommets, being careful to keep the pilotchute bridle to the RIGHT of the loop.
8. Applying tension to the pull-up cord, "pat" the bottom flaps (applying upwards friction as well as inwards compression) with the palm of the hand until it almost meets the top flap.
9. Lay the bridle cord up over the top flap and reserve container..
10. Close the right, then the left side flaps using the same patting technique. Be careful not to let the top and bottom flaps separate.
11. With the sheathing loop now through all four flaps, insert the curved bridle pin from right to left. Remove the pull up cord.
12. Mate the yellow pile velcro on the bridle with the yellow hook velcro on the top main flap.
13. Next mate the two velcro strips on the bridle with their corresponding pieces on the bottom main flap and the side of the harness and container.

NOTE: It may be necessary to adjust the length of the sheathing loop to achieve the best

fit of the side flaps to the top main flap.

#### PACKING THE VECTOR MAIN PILOT CHUT:

1. Lay the pilot chute out flat, mesh side up.
2. Fold the pilot chute in half over the bridle. The part of the bridle above the velcro should be stowed completely inside the folded halves.
3. Fold the corners up to the center of the arc to form a triangle.
4. Fold the corners in again, making a narrow triangle.
5. Fold again, making a wedge that is about 3" wide at the base.
6. Fold the wedge in half, bringing the apex over so that the top of the handle is even with the skirt.
7. Insert this folded end all the way into the pouch so that only the plastic handle is left hanging out.

\* Practice this procedure on the ground a few times. Put the rig on and tighten the harness and practice throwing the pilot chute correctly.

September 6, 1983

page 3 of..... 21



# *Relative Workshop, Inc.*

1050 FLIGHT LINE • DELAND, FLORIDA 32720 • (904) 736-7589

## WONDERHOG VECTOR RESERVE PACKING INSTRUCTIONS

---

Required Tools: One Temporary pin  
One Pull-up cord (48" of 550 Sheathing)  
One packing paddle

### NOTES:

- (a) For ease of packing the reserve flaps are numbered 1 - 6 for reference and are closed in that sequence.
- (b) Read ALL of these instructions carefully BEFORE you start to pack your reserve. They contain many tips on technique that will enable you to obtain the best looking pack job on your VECTOR. (We learned the hard way!)

### \*\* PART ONE \*\*

1. ATTACH THE CANOPY TO THE RISERS WITH THE STEERING MODIFICATIONS AND/OR INFORMATION PANEL FACING TO THE WEARERS REAR. Insure that the connector links are thoroughly tightened.
2. FOLLOW THE CANOPY MANUFACTURER'S INSTRUCTIONS TO INSTALL ANY STEERING LINES, TOGGLES OR SIMILAR SYSTEMS.
3. ATTACH THE VECTOR RESERVE PILOTCHUTE TO THE APEX OF THE CANOPY USING THE TYPE IV BRIDLE PROVIDED WITH THE VECTOR. DO NOT SUBSTITUTE OTHER BRIDLES. THE LENGTH OF THIS BRIDLE IS IMPORTANT FOR FAST DEPLOYMENT.
4. INSPECT AND FLAKE THE RESERVE CANOPY ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. If your reserves DOES NOT have a diaper or other deployment device, fold the skirt up parallel to the radial seams and then long fold the canopy into fifths.
5. IF YOUR CANOPY IS EQUIPPED WITH A DIAPER OR SIMILAR DEVICE, CLOSE IT ACCORDING TO THE MANUFACTURERS INSTRUCTIONS.
6. PLACE THE RESERVE RISERS INTO THE RESERVE CONTAINER WITH THE ENDS BETWEEN THE LINE STOW LOOPS AND THE GROMMET STIFFENER PLATE.

September 6, 1983

page 4 of.....21

# WONDERHOG VECTOR RESERVE PACKING INSTRUCTIONS

## \*\* NOTE \*\*

We found that at this point, we placed the VECTOR reserve on the floor on its back with the backpad facing up and walked on it with our bare feet, "kneading" the reserve so to speak. This will work any excess air out of the container and it is easy to "feel" the distribution of canopy within the container and determine if it is a "good" pack job.

September 6, 1983

page 8 of.....21



For the Ram-air Reserve with the Vector Free Bag, Bridle and Pilot Chute System--

Because of the wide variety of ram-air reserve canopies available today, this manual does not contain instructions on inspecting, assembling and packing instructions provided by the canopy manufacturer.

The Procedures required to pack a ram-air reserve into a Vector and its free bag are different than those specified by Para-Flite, Inc., for the free bag system it supplied with its ram-air reserves. Para-Flite approves the procedures described here for use with its reserves in the Vector.

See the instructions later in this chapter for installing the FXC 12000 and SSE Sentinel Mk 2000 automatic activation devices.

#### REQUIRED TOOLS:

- One temporary pin
- One pull-up cord (About 6 ft. long)
- One packing paddle

#### Part One: Packing the Canopy

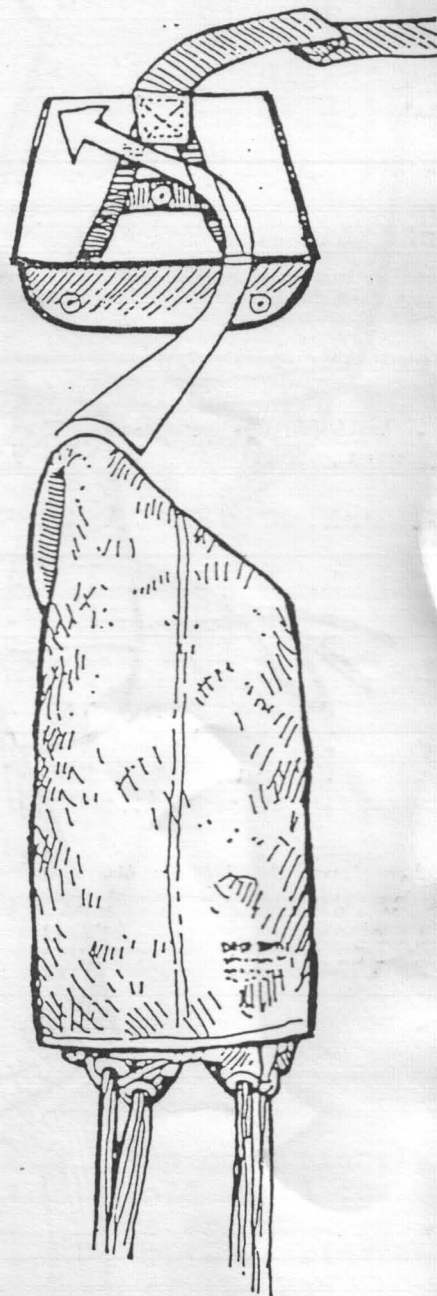
1. Thoroughly inspect the pilot chute, bridle, deployment bag, canopy, lines, links, locking loop, risers container and harness.
2. Follow canopy manufacturer's instructions for:
  - A. Attaching the canopy to risers
  - B. Attaching toggles and/or steering lines.
  - C. Flaking the canopy.
  - D. Folding the nose and canopy.
  - E. Setting deployment brakes.
  - F. Splitting the tail.
  - G. Stowing the slider.
  - H. Dressing the canopy.
3. The rigger can choose between two methods of placing the canopy into the deployment bag. One method is for smaller canopies, the other for larger ones. If the canopy is larger than 200 sq. ft., for to the section titled "Alternate Method".

A. PRIMARY METHOD, For smaller ram-air reserves, those with 200 or fewer sq.ft.:

1. Facing the top of the canopy and straddling the lines, kneel on the edge of the tail at the bottom of the canopy.
2. Reach underneath the canopy and fold it all back into your lap, exposing the folded nose. Spread the nose of each cell across the front so they will be the first part of the canopy to take air.

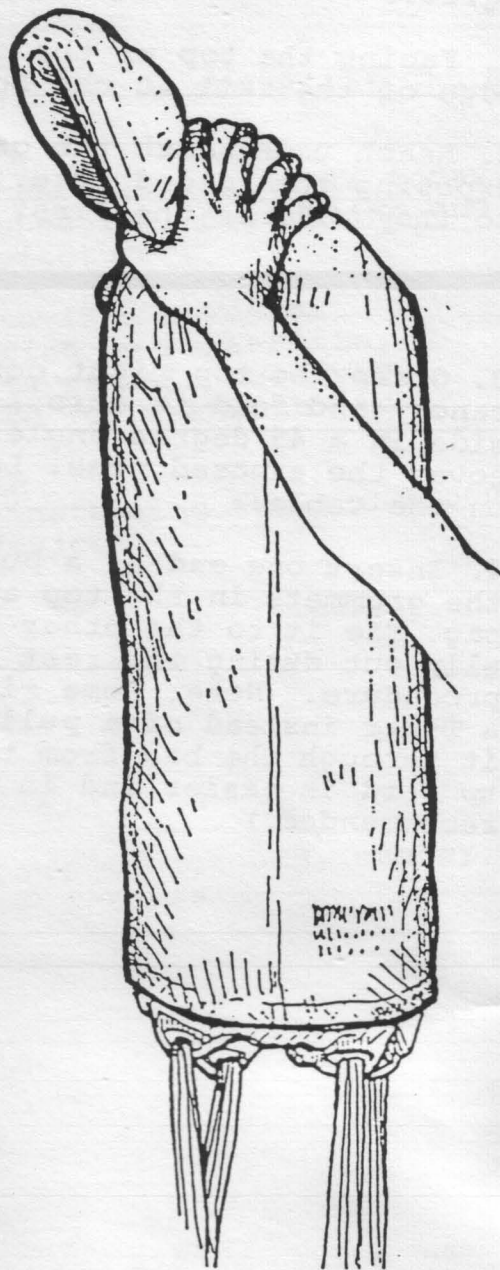
3. Grasp the top right corner of the flaked canopy and fold it across and under the left side in a 45 degree angle. Be sure not to cover the exposed nose. Lay the canopy back on the table.

4. Insert one end of a pull-up cord through the grommets in the top and bottom of the bag. Tie it to the other end so it won't slip out during the rest of the packing procedure. (Note: Some riggers prefer to use a T-bar instead of a pull-up cord, inserting it through the bag from the bottom. A pull-up cord is easier and is therefore recommended.)



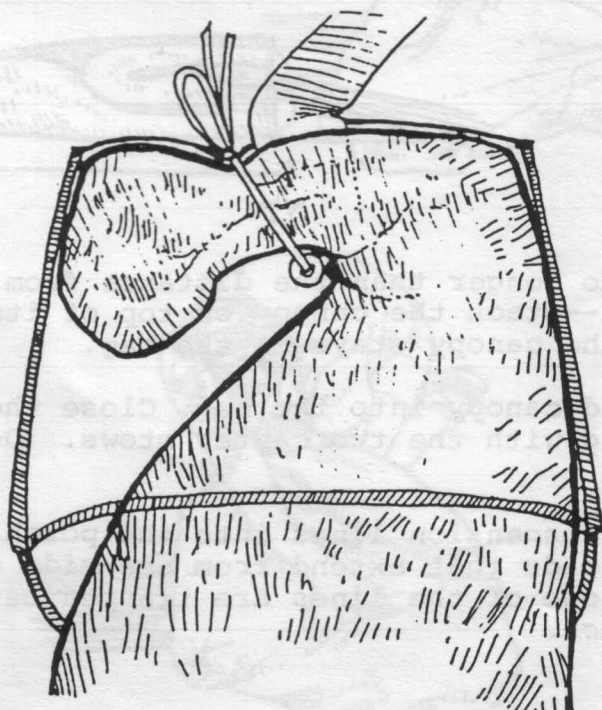
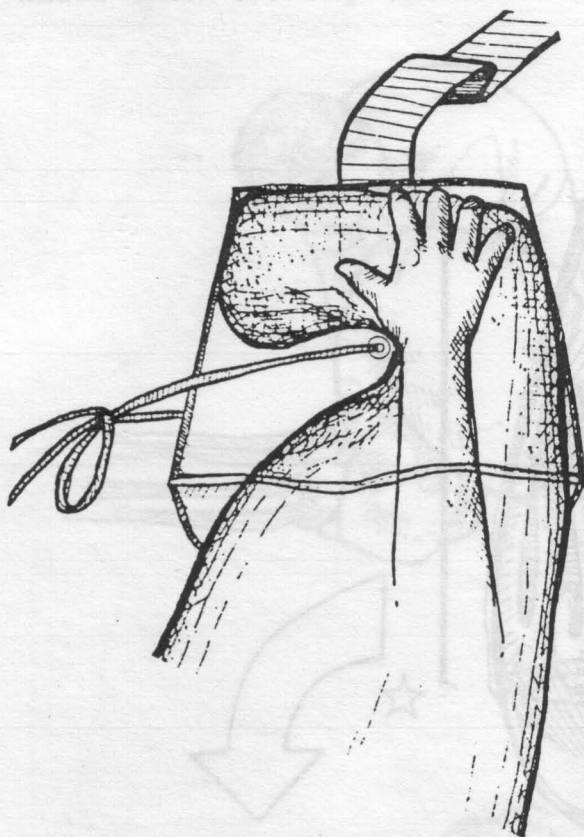


5. Kneeling as before, grasp the top left corner of the flaked canopy and going around to the right of the pull-up cord, place the corner of the canopy into the top left corner of the bag. Be sure to fill the corner.





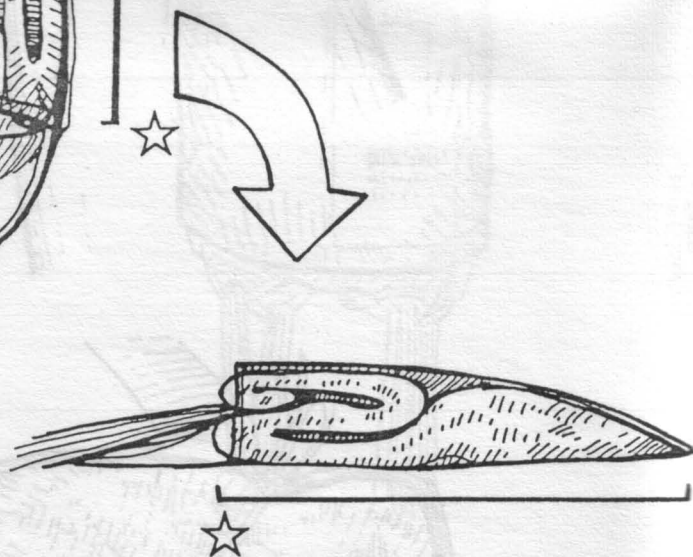
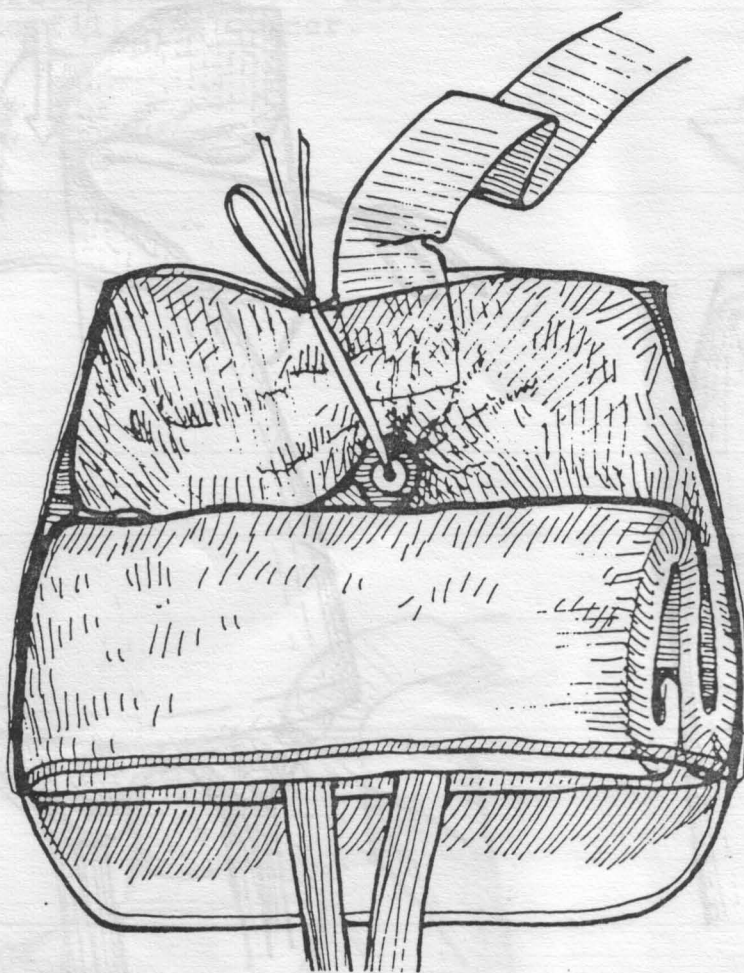
6. Without pulling the left corner free, reach into the bag and over the canopy to grasp the previously folded right corner under the canopy. Manuever this corner of the canopy into top right corner of the bag. Be sure to fill the corner.



7. Retie the pull-up cord tightly around the top S-fold until the top and bottom grommets are no more than 1 in. apart. This retains the S-fold in the top of the bag throughout the rest of the packing procedures.

8. Dress the remaining canopy to a width 2 inches wider than the bag on each side.

9. Fold the slider and 4 inches of the bottom of the canopy toward the top of the canopy and under the tail.



10. Making very short folds--no longer than the distance from the mouth of the bag to the pull-up cord--stack the canopy on top of itself. Be sure the top (first) fold of the canopy stays in the bag.

11. Carefully place the stacked canopy into the bag. Close the bag with the four locking stows starting with the two center stows. (O-rings are used, not rubber bands.)

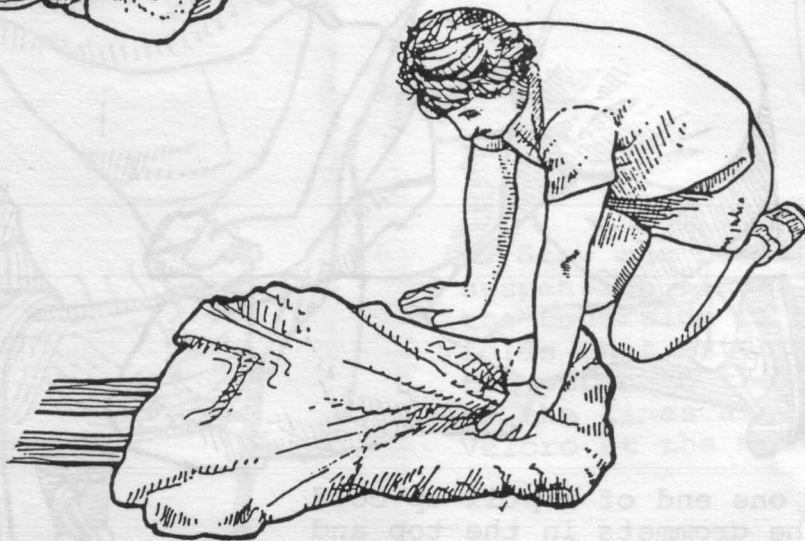
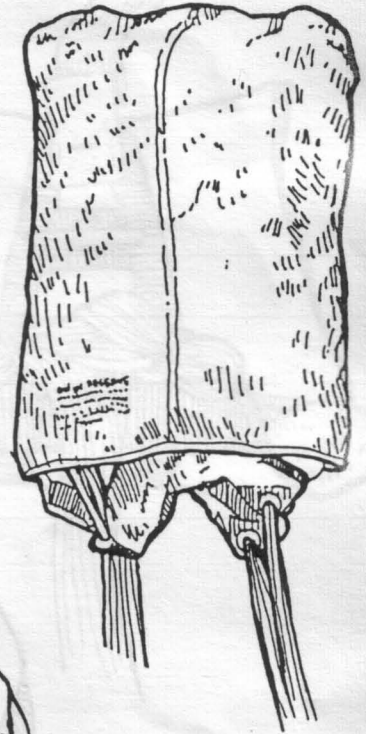
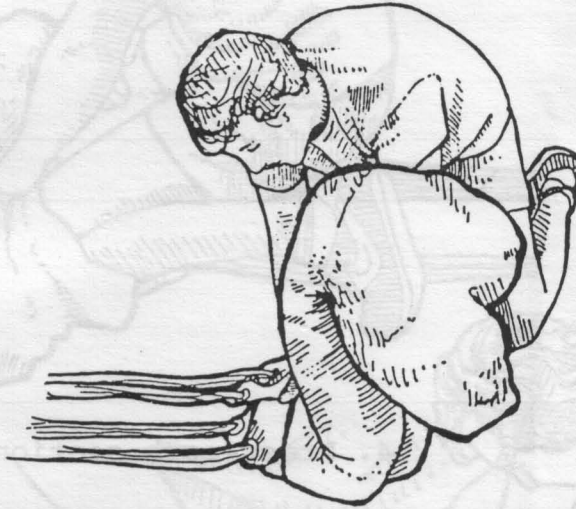
12. Stow the remainder of the suspension lines into the pouch on the underside of the bag using S-folds that extend from one side of the pouch to the other. Be sure none of the lines are trapped between the Velcro at the mouth of the pouch.



Skip the next section titled "Alternate Method" and continue with the one titled "Placing the Canopy in the Container"

B. ALTERNATE METHOD of placing the canopy in the deployment bag, for larger ram-air canopies, those with more than 200 sq.ft.:

1. Dress the canopy to a width 4 in. wider than the bag (2 in. on each side).



2. Stack the canopy on top of itself, making each fold no longer than the distance from the mouth of the bag to the grommets in the center of the bag.

3. After the canopy is stacked on itself, unfold the top portion into two sections or "ears."



4. Dress each section neatly.



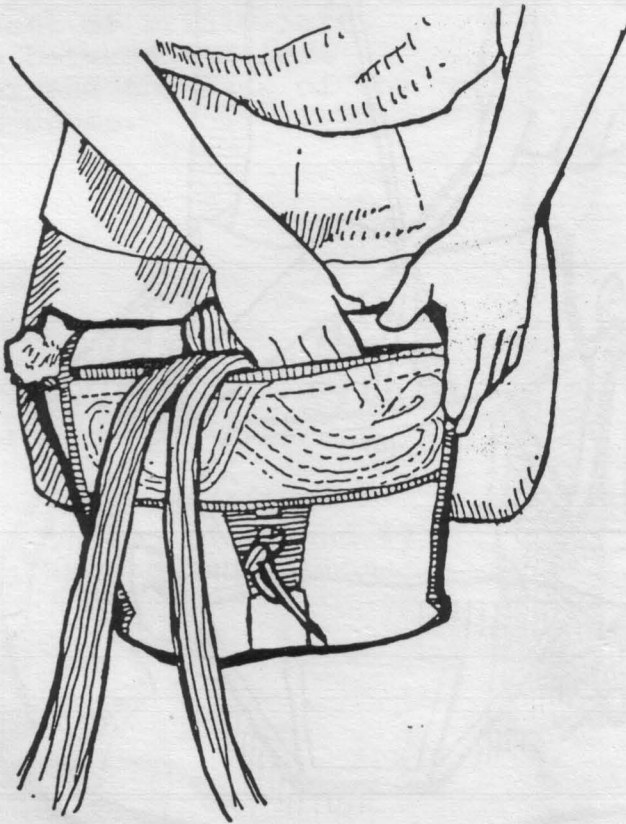
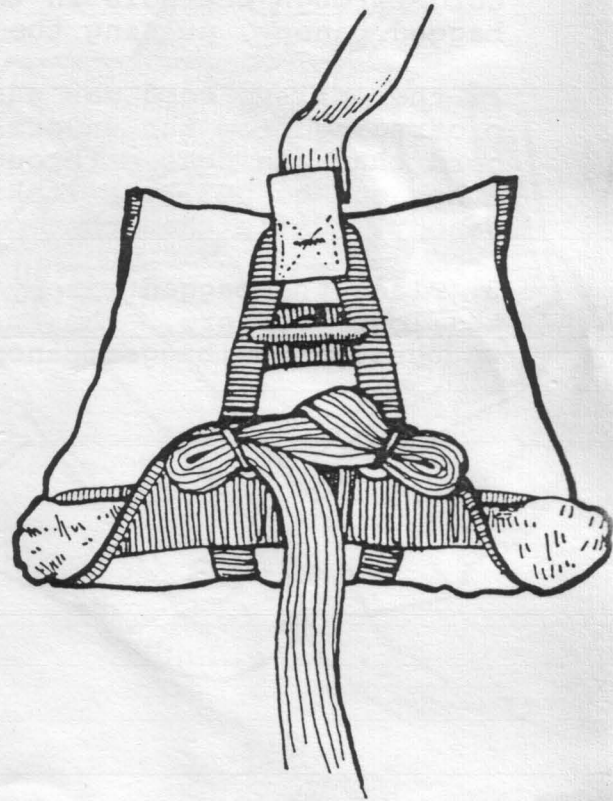
5. Insert one end of a pull-up cord through the grommets in the top and bottom of the bag. Tie it to the other end so it won't slip out during the rest of the packing procedure. (Note: Some riggers prefer to use a T-bar instead of a pull-up cord, inserting it through the bag from the bottom.)

6. Carefully slide the bag over the canopy, pushing each "ear" into the top corners of the bag, filling the corners evenly and leaving a tapered shape. Then pass a pull-up cord or T-bar or pull-up cord from the top through both grommets in the middle of the bag. (The T-bar or pull-up cord will be used later to pull the locking loop through the bagged canopy.)





7. Lock the bag closed with two bytes of suspension line. (A continuous loop is used, NOT rubber bands).



8. Stow the remainder of the suspension lines into the pouch on the underside of the bag using S-folds that extend from one side of the pouch to the other. Be sure none of the lines are trapped between the Velcro at the mouth of the pouch.

## Part Two: Placing the Bag into the Container

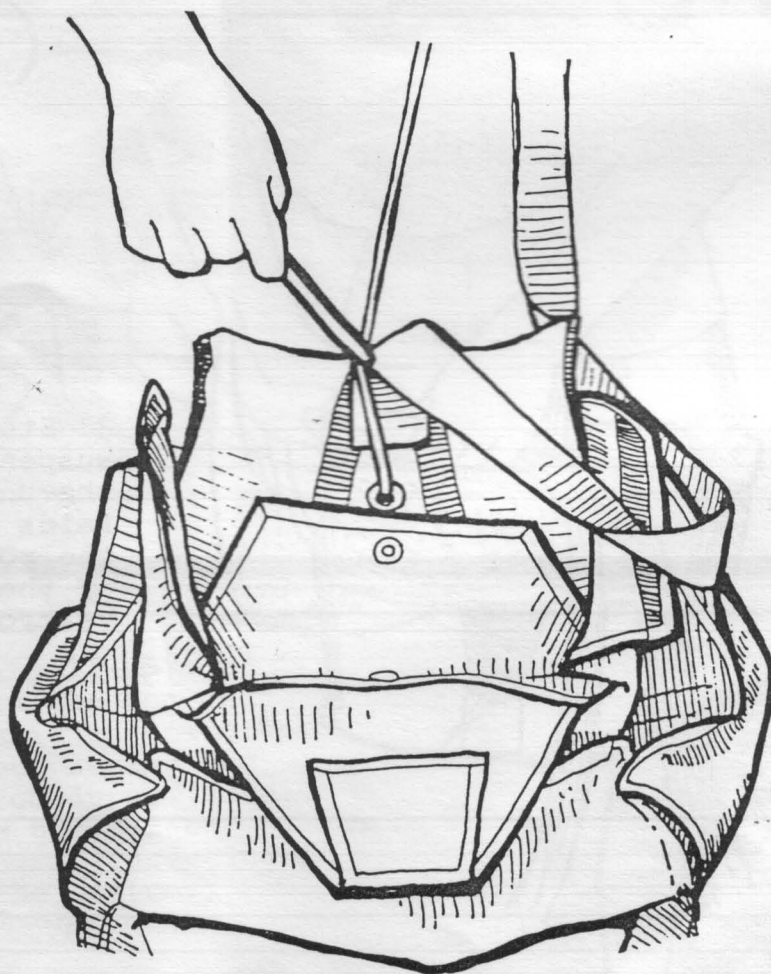
1. Set the bagged canopy on the main container and position the reserve risers in the reserve pack tray. Fan the links rather than stacking them on each other, placing the rear links to the outside. Be sure to place the reserve risers far enough in the pack tray so they will lie flat over the shoulders.

2. Pass the other pull-up cord through the reserve locking loop.

If a T-bar was passed through the bag, thread the ends of the pull-up cord through the hole in the end of the T-bar. Remove the T-bar from the bagged canopy, pulling the locking loop and pull-up cord through it.

If the pull-up cord was passed through the bag, untie it and tie the end protruding from the underside of the bag around both ends of the pull-up cord that was passed through the locking loop. Carefully pull on the other end to pull the locking loop and pull-up cord through the packed canopy. Untie the other pull-up cord and set it aside.

3. Place the bagged canopy in the pack tray, taking extra care to fill the loser corners. then use the pull-up cord to pull the locking loop up through the bagged canopy. Secure it with a temporary locking pin.

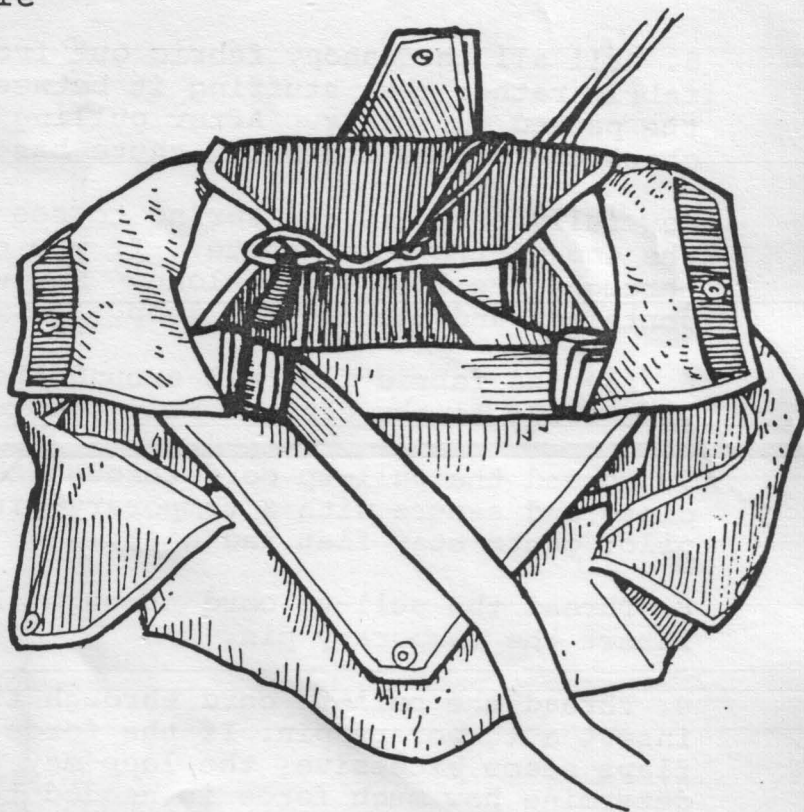




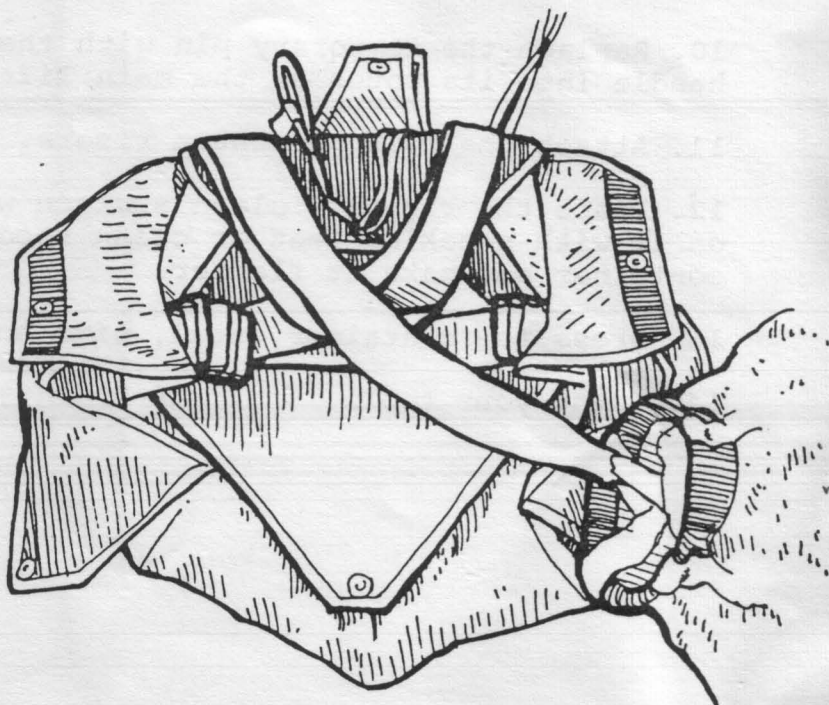
## Part Three--Closing the Container

Regardless of what procedure was used to place the canopy in the bag, the same procedure is used to close the container.

1. Close the inside bottom flap (Flap #1) and the inside top flap (Flap #2) and secure them with a temporary pin. The bridle should come out between these two flaps. Fold the bridle to the side and make a series of short S-folds. Fold them over and place them into the bottom right hand corner of the rig. Run the bridle along the bottom as shown and repeat the procedure for the other corner. When this is done, make sure there are at least SIX feet of bridle left loose between the left corner and the base of the pilot chute.



2. Fold the remaining bridle on top of #1 and #2 flaps from top to bottom.



3. Thread the pull-up cord up through the bottom of the pilot chute and out the top. Center the base of the pilot chute over the two flaps. Compress it straight down and lock it with the temporary pin.

4. Make sure the base of the pilot chute is centered over the loop, then collapse the pilot chute and lock it with a temporary pin.

5. Pull all the canopy fabric out from between the spring. Folding the fabric rather than stuffing it between the coils - reduces the bulk of the packed container. After pulling the fabric from between the spring, check to be sure the pilot chute base is centered under the crown.

Now fully compress the spring to see how much loop can be pulled through the top of the pilot chute. If you can pull more than 1/2 to 3/4 inches through, the loop is too long. Now would be the best time to open the container and shorten the loop.

6. Lay the fabric flat all around the pilot chute and fold it under in wide folds to the center. Fold the top and bottom first, then the sides.

7. Thread the pull-up cord through the side flaps (Flaps #3 and #4) and close and secure with a temporary pin. Make sure that the folds in the pilot chute stay flat and neat.

8. Thread the pull-up cord through the outside bottom flap (Flap #5) and insert the temporary pin.

9. Thread the pull-up cord through the outside top flap (Flap #6) and insert a temporary pin. If the force necessary to close the last two flaps seems excessive, the loop may be too short. Use a scale to determine how much force is needed to extract the pin; 8 to 12 lbs. is the correct reading.

10. Replace the temporary pin with the reserve pin. Insert the ripcord handle into its pouch on the main lift web.

11. Attach the main parachute risers.

12. Place the rig on a clean surface with the backpad facing up and walk on it with stocking feet or clean shoes to help expell air from the container and make it flatter.

13. Dress the container, seal, sign and log the reserve.

14. Count your tools.