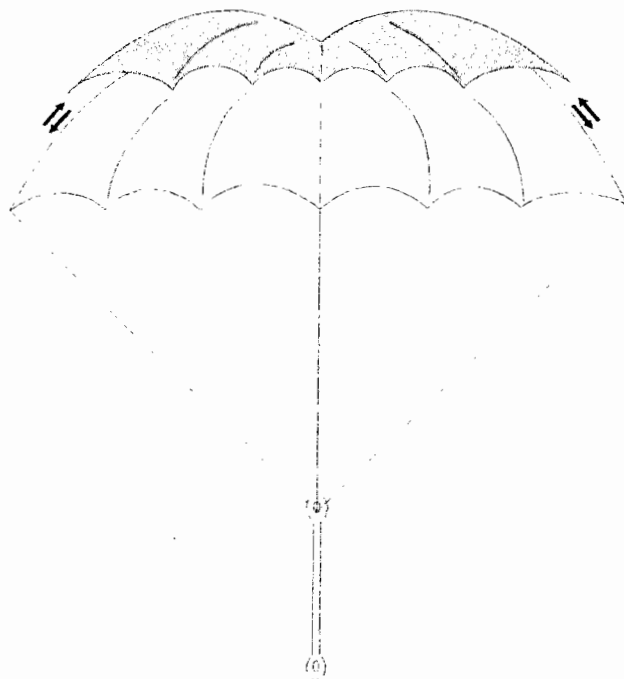


# ***AEROS***

*Rescue System* **OK**



***Owners Manual***

2002

**Type of Rescue:** AEROS OK

**Size:** 34 sq<sup>2</sup>

**Serial #:** 0603 OK, 441

**Manufacturing Date:** 03. 2006

**Colors:**

**Dealer:**

**Date of Sale:**

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## 1. Introduction.

This manual describes "OK" - rescue system for hang glider and paraglider pilots.

Please note, that Reserve chute gives you an additional safety in the air. Nevertheless, it does NOT guarantee 100% safety. Every time when you use chute, you expose yourself to a serious risk. Try to minimize this risk by following the basic safety requirements, repacking and maintaining your reserve chute. Please carefully study and follow this manual and the manuals for your other equipments.

### Disclaimer of Liability and Warranty

While designing and manufacturing the OK Rescue System we tried to take into account all conditions of use and storage of the OK. During our factory and AFNOR tests no problems occurred in operations of the rescue.

But we can't foresee in which conditions will be stored this particular unit. And it's about to impossible to determine this after opening. That's why we would like to state the next: the aim of the OK Rescue System is to reduce risk of injury while flying Hangglider or Paraglider in case of proper use.

Any deviation from the manufacturers specifications concerning maintenance, repair, alterations and modifications constitutes willful negligence. It is expressly understood and agreed by the buyer or any subsequent user that Aeros Ltd. and/or the seller shall in no way be deemed or held liable or accountable and makes no warranty, either expressed or implied, statutory, by operation of law or otherwise, beyond that expressed herein. Paragliding and Hang gliding equipment is sold with all faults and without any warranty of merchantability or fitness for any purpose, expressed or implied. Aeros Ltd. disclaims any liability in tort for damages, direct or consequential, including personal injuries, resulting from a malfunction or from a defect in design, manufacturing, materials or workmanship, whether caused by negligence on the part of Aeros Ltd. or otherwise.

The liability of Aeros Ltd. is limited to the replacement of defective parts found under examination by manufacturer to be defective in material or workmanship within 180 days after purchase, and which has not been caused by an accident, striking, improper use, alteration, tampering, excessive use, misuse or abuse.

## 2. Technical characteristics.

Model	OK34CD	OK38CD
Type	Double cone technology combined with pulled down apex	
Size (area)	34 m <sup>2</sup>	38 m <sup>2</sup>
Number of Segments	16	18
Lines	Equilon 3,4,6 mm	
Weight	2.5 kg	2.7 kg
Vertical descent speed (total weight)	5.5 m/s(125 kg)	5.5 m/s(135 Kg)
Certification	AFNOR	-

The altitude, needed for the opening of your reserve chute depends on your horizontal and vertical speed.

### **3. Maintenance.**

We do our best to carefully select materials for our reserve systems. Unfortunately, some of these materials are sensitive to sunlight (UV or ultra-violet rays). The container and harness protect canopy from it, but for the best protection please store your reserve in a cool dry place, out of direct sunlight.

Protect your reserve from high temperatures or moisture. Once your chute gets wet for any reason, it should be opened and air-dried, out of direct sunlight, indoors. Repack the chute when it is completely dry.

If your chute requires cleaning, use fresh water and gently soap (no scrubbing!). then dry it out of direct sunlight.

If there are oil or acids spots – neutralize it first. Then leave chute opened for some time (a week for example) and inspect it carefully to ensure that there are no damage to the fabric.

If your chute requires repair, please contact your dealer or manufacturer.

To ensure the best reliability of the system please repack your reserve each 4 month. Please replace rubber elastics on the packed lines at the each repack.

You can repack your reserve chute by your own. You have to study this manual and follow it carefully in this case.

### **4. Reserve deployment.**

Minimal altitude, recommended for deployment reserve chute is 60-70m.

However, chute may open even from 30 meters altitude. This depends on horizontal and vertical speed of your hang glider or paraglider at the opening time, direction and force of the deployment throw, etc. Even if you are not sure that chute may help in the specific situation, it is better to deploy it anyway.

#### **4.1 Reserve deployment – Hang glider.**

When you understand that reserve chute is the only possibility to save your health and life, extract it from the harness by pulling the handle and throw it in the direction which is free from hang glider sail, wires or any other obstacles. If hang glider has rotation – throw in rotation direction. In case of tumble - wait until you can see the ground and deploy chute immediately. It is recommended to hold on hangglider frame by other hand at the time of the deployment to make throw more effective.

Opening time depends on your vertical and horizontal speed and the force of the throw.

Just before landing, try to fit yourself such way, that land will be touched by hangglider frame first.

This will make your landing more soft, as soon as breaking frame will reduce vertical speed.

#### **Attention!**

Please check your harness in “flight” position and ensure that you can reach deployment handle easily. Please ensure that reserve does not touch hangglider frame in the whole range of pilot flight movements. It might be necessary to make harness main rope shorter to avoid touching speed bar by reserve chute in some cases.

#### **4.2 Reserve deployment – paraglider.**

If you understand, that reserve chute is the only possibility that may help, extract it from harness by pulling the handle, and throw them under the approx. 45° angle up.

If you have rotation – throw in rotation direction as well. If deployment was unsuccessful, you may try to deploy it again. (Gather canopy in your hands first, than redeploy). Be aware of your altitude loss while this attempt. It's probably better to deploy once, but successfully.

### **Attention!**

You may need to deploy your chute unexpectedly in different situation. Prepare yourself to this on the ground. Imagine and analyze as many dangerous situations as possible, and prepare yourself with an appropriate response action. Your hand movement to pick reserve handle should be well trained, so you will not spend time finding it. Try to do it a few times on the ground, wearing harness in flight position.

### **4.3 Warning.**

“OK” is rescue system and can NOT be used for any other purposes. Beware the fact that “OK” has been tested by the test pilots, landing on the feet to the hard surface, we do not recommend you to try that for training purposes.

Rescue chute deployment is always potentially dangerous, extreme situation, which is hard to predict.

### **5. Repack.**

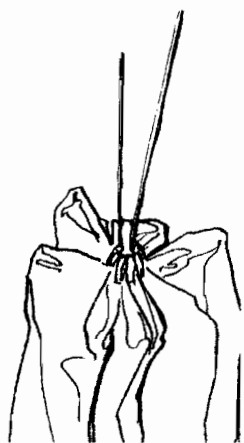
5.1 It is recommended to “air” the canopy for 24 hours before repack. It can be done by suspending canopy from its apex to the some point on ceiling. It should be done in a cool dry place, out of the direct sunlight.

5.2 Lay the canopy on the packing table, or any other flat and clean surface, wide and long enough to fit canopy and lines.

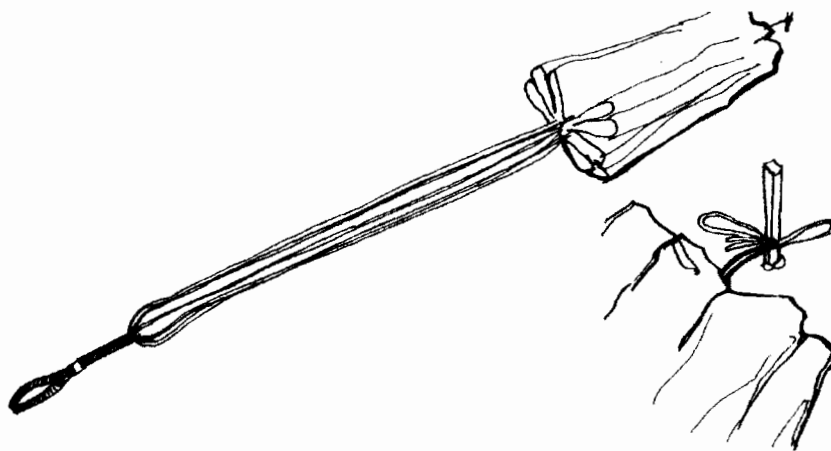
5.3 Straighten canopy, making sure that sections do not stick together. Remove possible sticking dust or grass.

5.4 Use special service rope to run through 16 (for OK-34) or 18 (for OK-38) technological loops on the canopy. The loops can be located on the lengthwise stitches as shown on Pic.1.

5.5 Attach this service rope to some fixed point on the one side of the table and the main canopy rope to the some fixed point on the other side, as shown on Pic.2. Fix the ropes, applying some stretching force (approx 5 kg.)

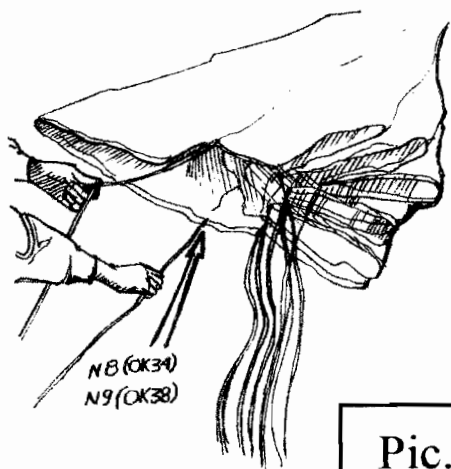


Pic. 1

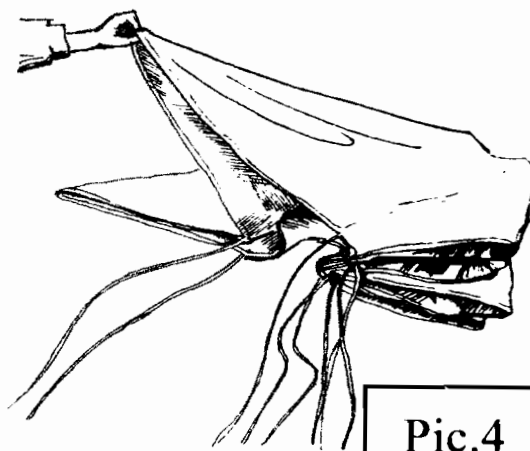


Pic. 2

5.6 Find the line № 8 (for OK-34) or №9 (for OK-38). Section numbering shown on the appropriate panels, near the line attachment points, as shown on Pic.3.

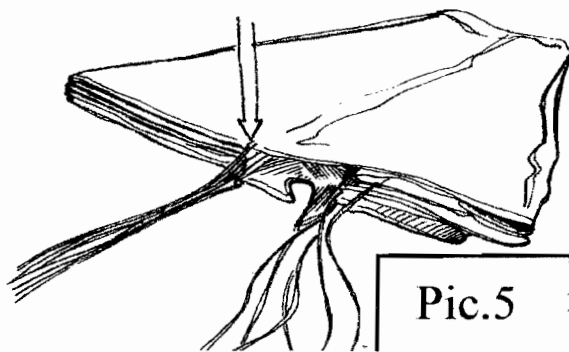


Pic.3

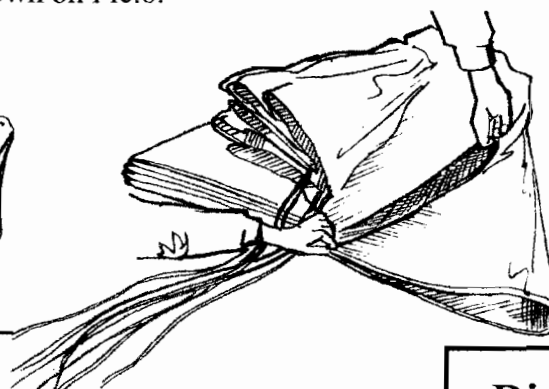


Pic.4

5.7 Page the chute sections in an appropriate order (f.e. in a clockwise direction) up to the line №1. Page the sections one by one, lifting them with one hand by the middle between two line attachment points, while holding all the lines down together on the table with the other hand. Make sure to lift the complete gore up by applying a little tension with the lifting hand against the apex. Straighten the fabric between the lines as shown on Pic.4 and Pic.5. Apply some stretch to the fabric while paging. Put unpagged part of the canopy on top of the pagged one. Page it in a reverse order (in anti-clockwise direction in this case) the lines from №8 to №16 (OK-34) or from №9 to №18 (OK-38) as shown on Pic.6.

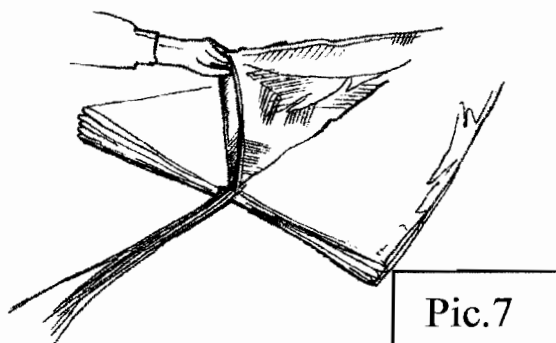


Pic.5

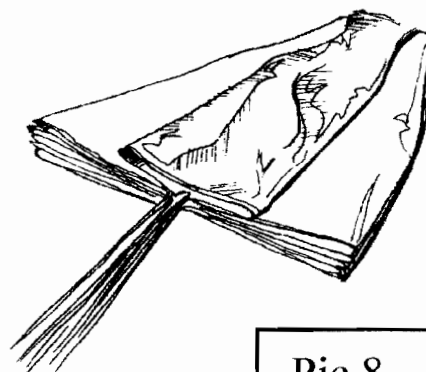


Pic.6

5.8 Spread the middle section (between lines №1 and №16 for OK-34, and lines №1 and №18 for OK-38) and fit it symmetrically along the canopy center line as shown on Pic.7. Pic.8.

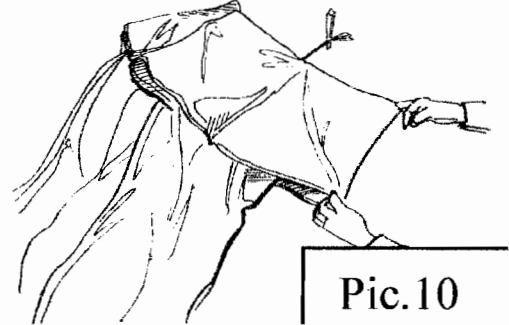
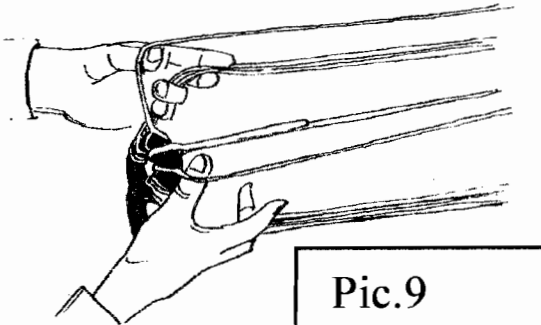


Pic.7

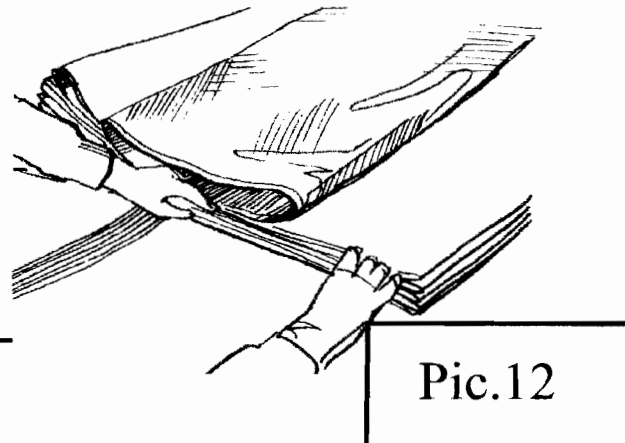
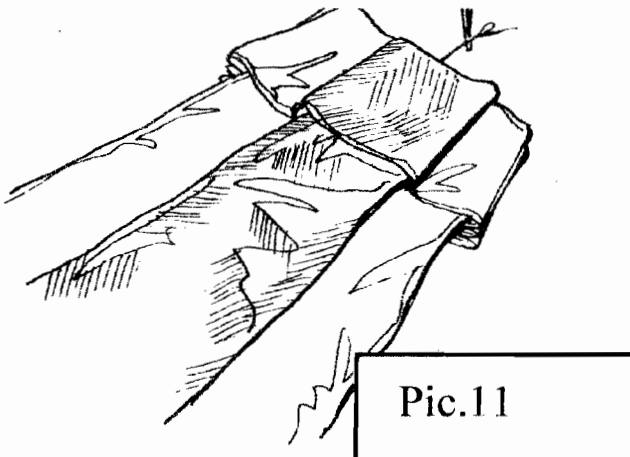


Pic.8

5.9 Check that the lines are not twisted. Split the lines according to Pic.4- put the center line in the middle and group the other lines on the left and right sides of it. Check that the lines are parallel, without gushing one over others for the whole line length. (Pic.9)

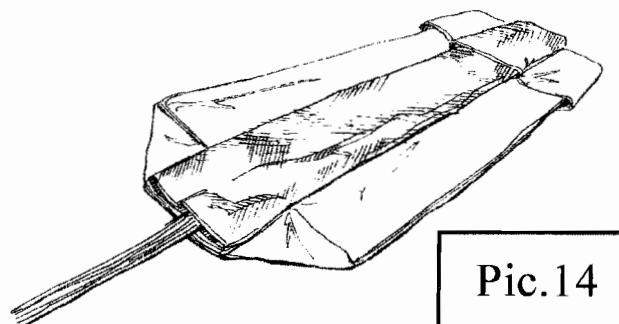
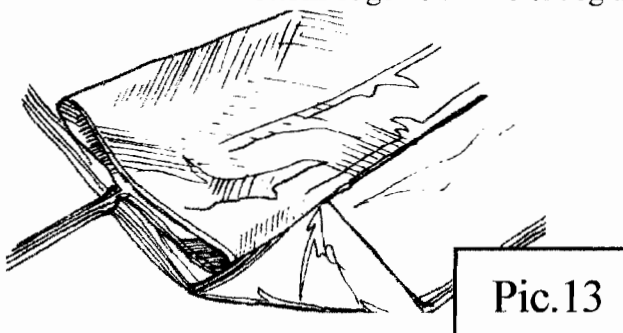


5.10 Page and stack the canopy upper cone bottom edge (Pic.10). Page the one side first - from the middle gore (between lines #1 and #16 for OK34, between lines #1 and #18 for OK38) and, then, another side. Spread the bottom edge of the canopy upper cone middle section (Pic.11).

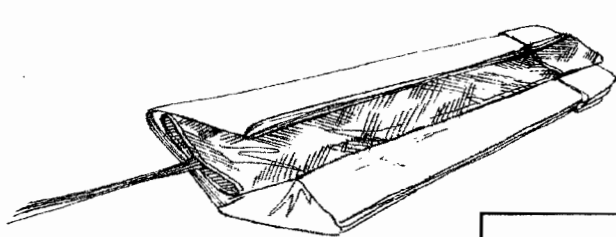


Stack the bottom edge of the canopy from both sides. Carefully spread panels and place down on top of each other, aligning bottom edge and free fold on the panels. Stack the one side first, then the other side. It is convenient to use clutches and weights for the stacked side while working on the other side (Pic.12).

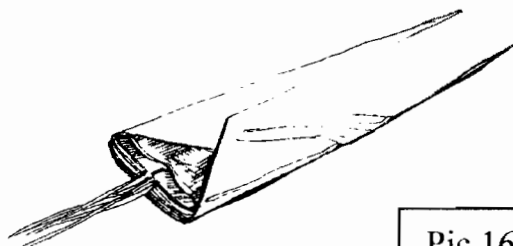
5.11 Fold the bottom edge corner at 45deg at one side first, then - at the other side (Pic. 13, 14).



5.12 Align bends of the centers of sections along the long side of section. Fold the left side by half lengthwise towards the centers as shown (Pic.15). Repeat this procedure with the right side (Pic.16).



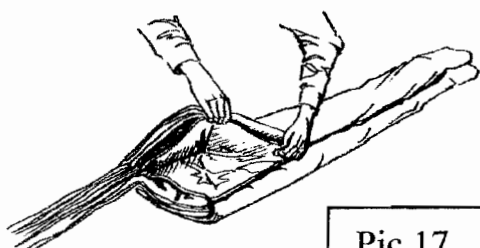
Pic.15



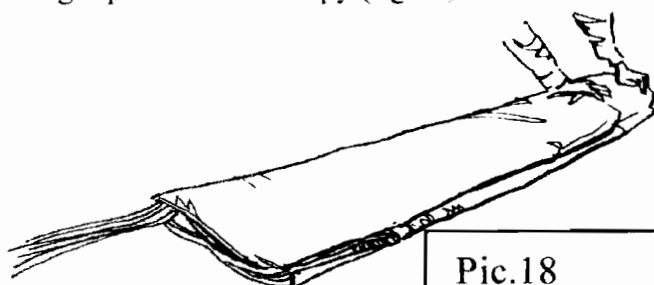
Pic.16

5.13 It is recommended to use weights or clutches, especially for folding near the top edge.

5.14 Fold the canopy along the center line, moving the left side on top of the right one. Pay special attention to the jams at the top of canopy. Carefully pull the bottom center part of the middle section up as shown on (fig.17) to make "opening"/skirt. (middle section is the section between lines 1-16 for OK-34 and 1-18 for OK38). Check that opening/Skirt is spread carefully and located in between the left and right parts of the canopy (fig.18).

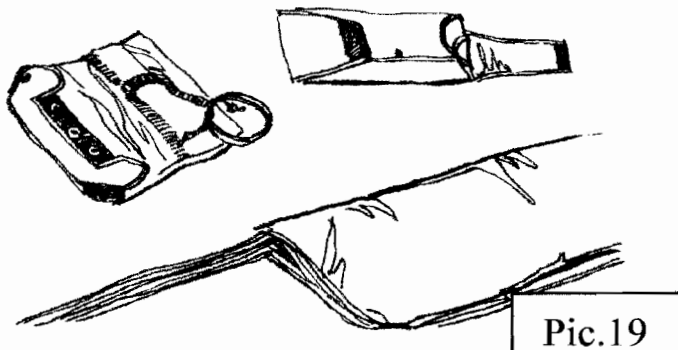


Pic.17

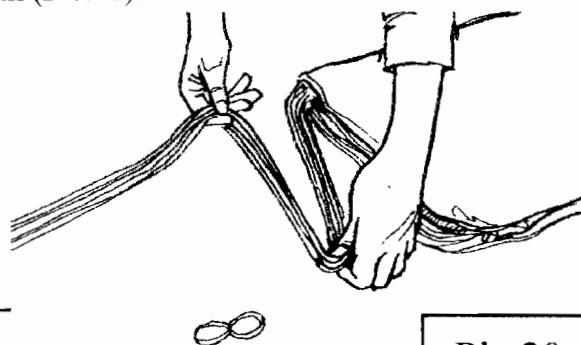


Pic.18

5.15 Place the inner container near the canopy bottom side (Pic.19) container flap side down. Fold the lines S-type according to the container width (Pic.20).

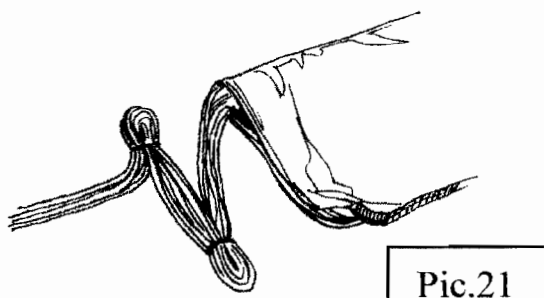


Pic.19

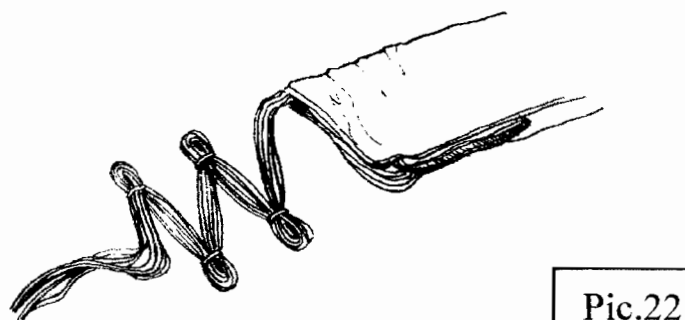


Pic.20

Secure lines foldings by elastic (rubber) rings at 2-3 cm from the folding. You should make 4 folding (2 per each side) (see Pic. 21, 22).



Pic.21

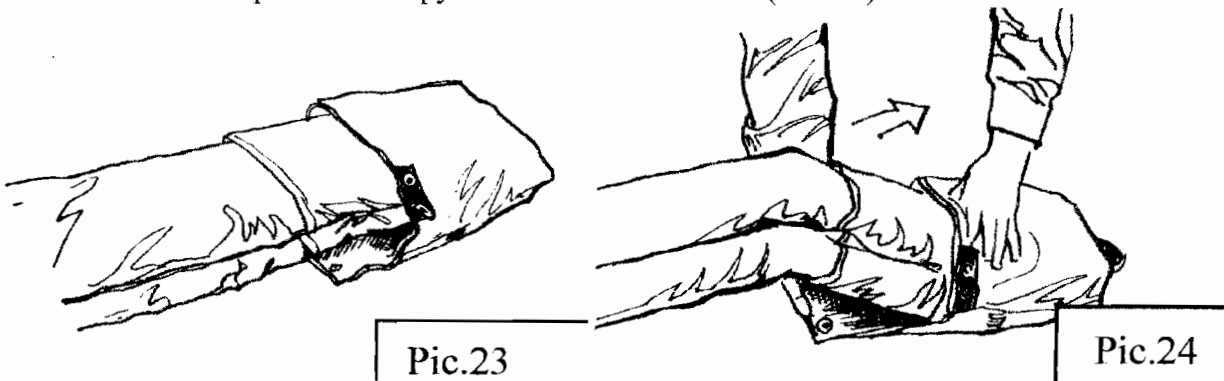


Pic.22

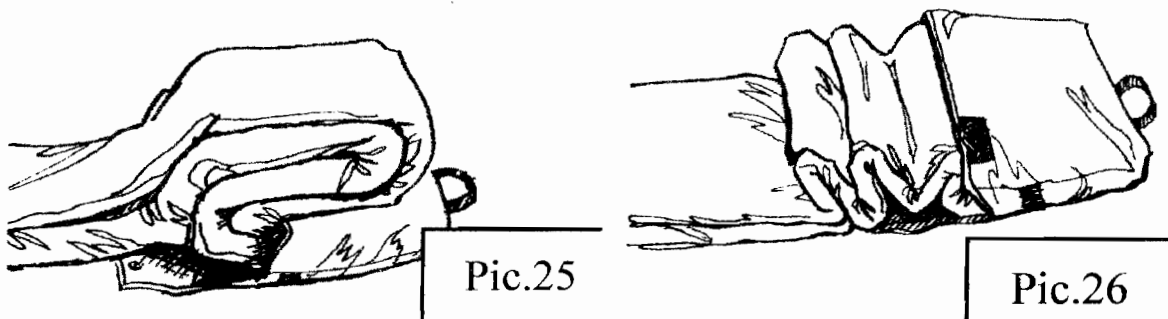
5.16 Untie the service rope and take it away from the loops in the canopy. **PAY ATTENTION THAT THE ROPE MUST BE REMOVED. DON'T LEAVE IT IN A CANOPY.**



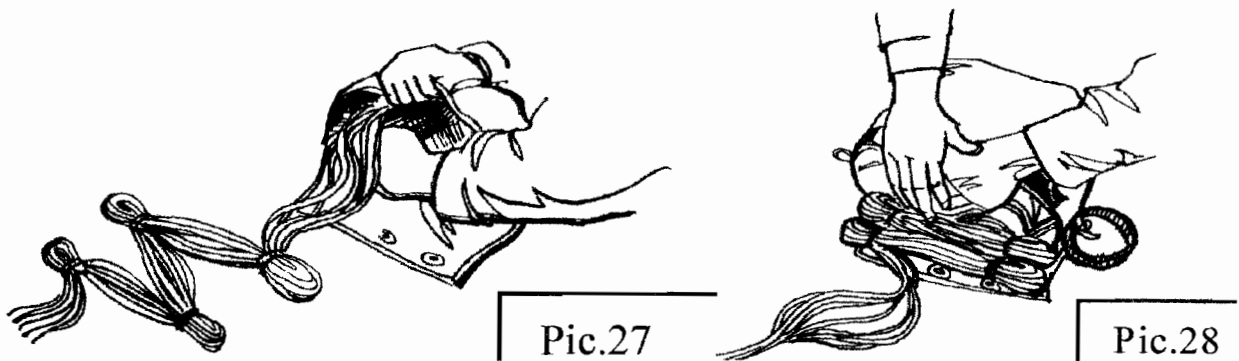
5.17 Insert the top of the canopy into the inner container (Pic. 23).



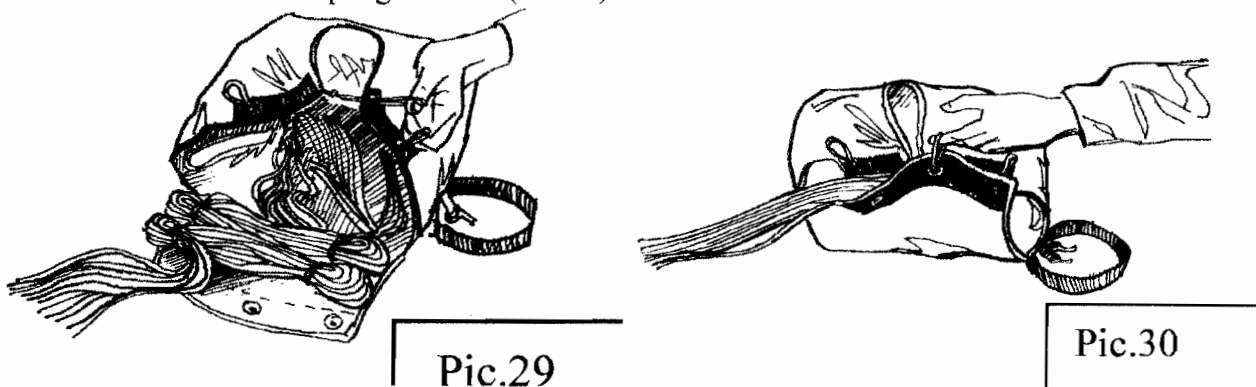
5.18 Hold container with one hand and fold the assembled canopy on the length of the container with other hand (Pic. 24, 25). Insert folded part of the canopy into the container, adjusting the container's flap.



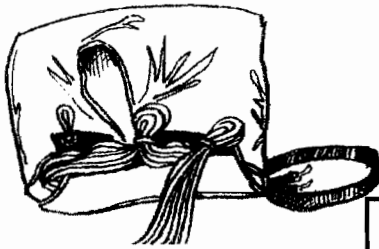
5.19 Fold the rest of the assembled canopy with small vertical waves (Pic.26). Put these "waves" into the container (Pic.27). Put S-folded lines onto the container flap (Pic.28).



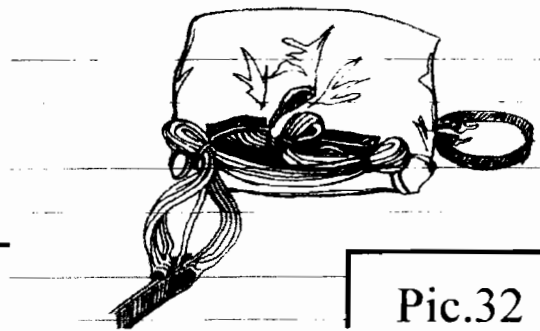
5.20 Find the middle elastic (rubber) ring, attached to the container, and insert it into the grommet, which is on the nearby reinforcement the one on the same side of container, with another elastic ring attached nearby) (Pic.29). Close the container flap and insert middle rubber ring into the middle flap's grommet (Pic.30).



Secure flap center with a lines loop inserted into elastic ring (Pic.31). Secure the right and left sides, passing elastic rings into the appropriate grommets and securing them with lines loops as shown (Pic.32).



Pic.31

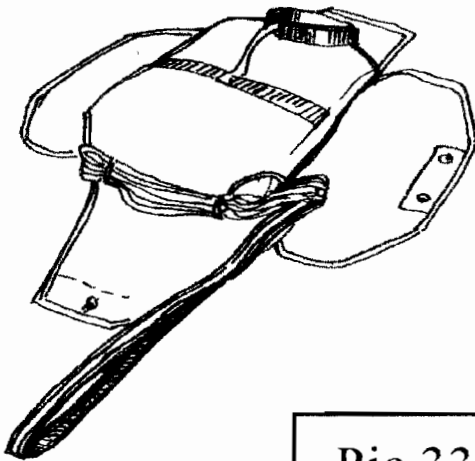


Pic.32

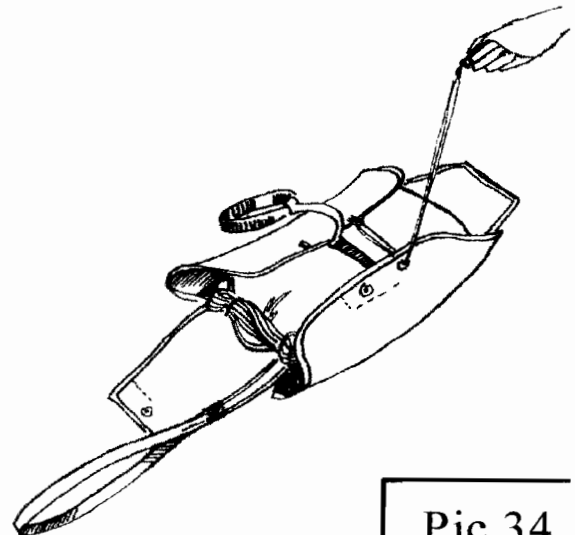
5.21 Ram the packed inner container with canopy, before inserting it into the outer container.

5.22 Inserting the Rescue Into the Outer Container:

- 1) Spread the outer container (inner side up). Put packed inner container on top, flap side up (Pic. 33).
- 2) Insert service rope (about 30 cm length) into the loop from the bigger flap side. (Pic.34) and thread both sides of rope into the grommet on the opposite outer container flap. Pull the service rope to thread the container loop into this grommet.

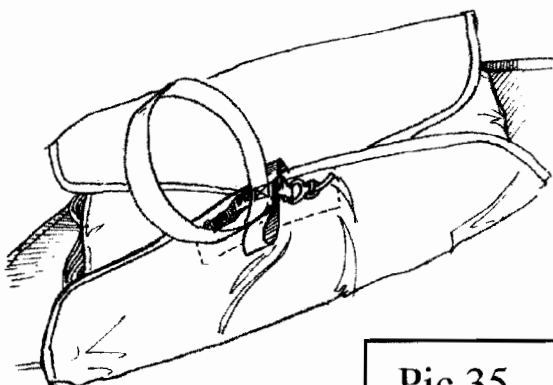


Pic.33

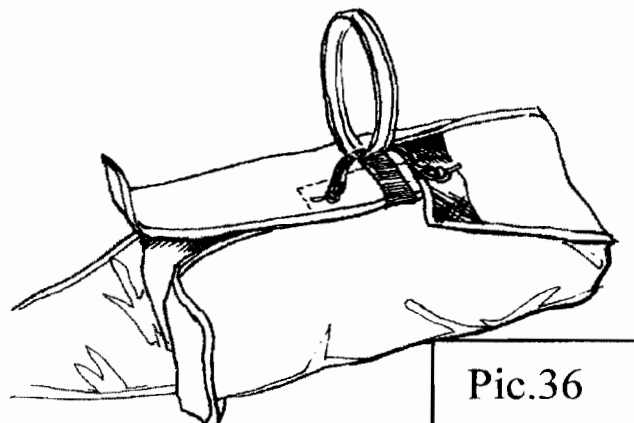


Pic.34

- 3) Secure loop with appropriate pin on the deployment handle (Pic.35). Pull the service rope out.
- 4) Insert service rope into the second loop, into the grommets of opposite flap and short side flap. Use service rope to pull the loop and thread it in the grommets. Secure with second pin on the deployment handle (Pic.36). Pull the service rope out.

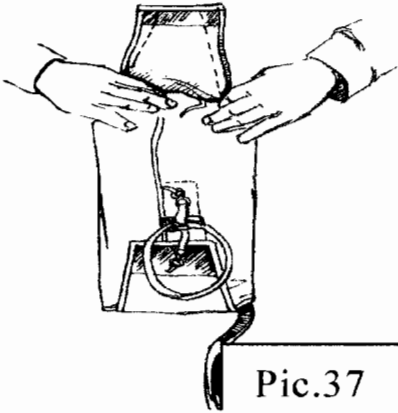


Pic.35

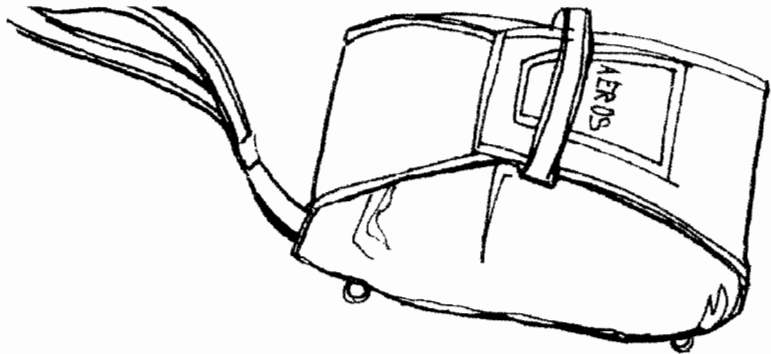


Pic.36

5) Put the rescue on to the edge (long flap up) – Pic.37. Close the side leafs of lengthwise flaps (press them in slightly). Pass the long flap through the deployment handle and secure them with velero (Pic.38).



Pic.37



Pic.38

6) Your rescue is ready for use.



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