

# RIGGING INNOVATIONS INC

# P-124 AVIATOR

AIRCREW EMERGENCY PARACHUTE SYSTEM

OWNER'S MANUAL



1. Training and/or experience are required to lower the risk of serious bodily injury or death.

**NEVER** use this equipment unless you have:

A. Read the warning label and completed a "controlled program of instruction" in the use of this parachute assembly.

- OR-

- B. Read the warning label and all appropriate owners / flight manuals, packing instructions and completed at least 100 ram-air parachute jumps.
- 2. Lower the risk of death, serious injury, canopy damage and hard openings by never exceeding the limits shown on the warning label.

Warning labels may be found in the following locations:

Ram-Air parachute - center cell top skin at trailing edge.

Harness/Container System - backpad.

# **DISCLAIMER - NO WARRANTY**

Because of the unavoidable danger associated with the use of the parachute system, the manufacturer makes NO WARRANTY, either expressed or implied. The system is sold with all faults and without any warranty of fitness for any purpose. Manufacturer also disclaims any liability in tort of damages, direct or consequential, including personal injuries resulting from a defect in design, material or workmanship or manufacturing whether caused by negligence on the part of the manufacturer or otherwise. By using this system, or allowing it to be used by others, the buyer WAIVES any liability of or the manufacturer for personal injuries or other damages arising from such use.

If the buyer declines to waive liability on the part of the manufacturer, buyer may obtain a full refund of the purchase price by returning the system, before it is used, to the manufacturer within 15 days of the date of the original purchase with a letter stating why it was returned.



You can substantially reduce risk by ensuring that each component of the system has been assembled and packed in strict compliance with the manufacturer's instructions, by obtaining proper instruction in the use of this system, and by operating each component of the system in strict compliance with owner's manual. However, parachute systems sometimes fail to operate properly even when properly assembled, packed and operated so that you risk serious injury or death each time you use the system.

P - 124 AVIATOR P/N 6611 - ( )	S/N
DATE OF MANUFACTURE:	

Manufactured by: Rigging Innovations, Inc. 4900 N. Tumbleweed Rd. Bldg. 1, Eloy, AZ 85131, USA

> Telephone: (520) 466.2655 FAX: (520) 466.2656

E-mail: info@rigginginnovations.com

© All Material is Copyright 2009 by Rigging Innovations Inc. All rights reserved. Reproduction in whole or in part without permission is prohibited.

RIGGING INNOVATIONS, INC.

# **TABLE OF CONTENTS**

WARN	ING	••••••	2
DISCL	AIMER	•••••	3
SERIA	L NUMBER RECORD		4
	E OF CONTENTS		5
Sectio	n 1 - General Information		Page 6
	1.1 Aviator TSO Certification		1 450 0
	1.2 Rigger Qualifications		
	1.3 Am I Qualified to Jump this l	Equipment?"	
	1.4 Emergency Bailout Procedur		
	1.5 Customer Service		
	1.6 Table I - Parts List		
Sectio	on 2 - Component Compatibility		Page 13
	2.1 Parachute	•••••••••••	ruge 13
	2.2 Orange Warning Label Placar	rd Data	
	2.3 Table II - P124 Weight / Dep		
	2.4 Deployment Bag and Bridle	7 1	
	2.5 Pilot Chute		
	2.6 Ripcord		
Section	on 3 - User Information		Page 16
	3.1 Harness Adjustments and Fitt		Tage 10
	3.2 Maintenance		
	3.3 120 Day Maintenance		
	3.4 Alterations / Repair		
	3.5 Service life		
		mmended Stain Removal Methods	
Sectio	<b>n 4</b> - Rigger Information		Page 20
	4.1 Recommended Tools List		1 uge 20
	4.2 Parachute Packing Instruction	18	
	4.2.1 Assembling and Fold		
	4.2.2 Table - IV Closing Lo		
	4.2.3 Dressing the Folded F		
	4.2.4 Putting Parachute in t		
	4.2.5 Placing Deployment l		
	4.2.6 Closing the Container		

# Section 1.0 General Information

### 1.1 Aviator TSO Certification

The Aviator parachute system is approved under FAA TSO-C23d: The approval specifies weight and speed limitations for each size of the P-124 Parachute. The weight and speed limits are indicated i Table II of this manual.



TRANSPORT AIRPLANE DIRECTORATE
AIRCRAFT CERTIFICATION SERVICE
LOS ANGELES AIRCRAFT CERTIFICATION OFFICE
3960 PARAMOUNT BOULEVARD
LAKEWOOD, CALIFORNIA 90712-4137

JAN 16 1996

Rigging Innovations Inc. Mr. Sandy R. Reid, President 27235 Watson road, P O Box 1398, Romoland CA 92585

Gentlemen:

Rigging Innovations Inc., Aviator Emergency Parachute System; Technical Standard Order C23d

Your application dated December 15, 1995, requesting issuance of Technical Standard Order (TSO) authorization in accordance with the procedural requirements of Federal Aviation Regulation (FAR) Part 21, Subpart 0, has been reviewed. Based upon your data and statement of conformance certifying your article(s) have met the requirements of FAR Part 21 Subpart 0, and the minimum performance standards of TSO C23d (Ref. FAR 21.305 (b)), authorization is hereby granted for the following:

PART NUMBER

DESCRIPTION

6611-()

Aviator Emergency Parachute System

The technical data submitted with your letter of application has been accepted as fulfilling the requirements for a TSO authorization and will be retained in our files. For your information, the conditions and tests required for TSO approval are minimum performance standards. The article(s) may be installed on or within a specific type or class of aircraft only if further evaluation by the user/installer documents an acceptable installation that is approved by the Administrator.

The quality control procedure contained in your quality control manual, currently on file at the Los Angeles Manufacturing Inspection District Office, and your statement that those procedures will be applied to the manufacture of the subject article(s) at the above address, are considered adequate in accordance with FAR 21.143.

Effective this date, your authorization to use TSO procedures is extended to include the subject article(s), You may identify the article(s) with the applicable TSO markings as required by TSO C23d.

As a recipient of this TSO authorization, except as provided in FAR 21.3(d), you are required to report any failure, malfunction, or defect in any product or part manufactured by you or your contracted suppliers, and which you have determined has resulted or could result in any of the occurrences listed in FAR 21.3(c). The report should be communicated initially by telephone to the Manager, Technical and Administrative Support Staff, ANM-103L (310) 627-5300, within 24 hours after it has been determined the failure has occurred and followed up with a written notice. FAA Form 8010-4 (Malfunction or Defect Report) or other appropriate format is acceptable in transmitting the required details. As required by FAR 21.613(b), you must also notify the FAA when you no longer manufacture a TSO approved article.

This authorization pertains only to manufacturing operations at the above address. This office must be notified in advance of any proposed name change and/or facility relocation to preclude interruption while awaiting quality control approval of that facility.

Sincerely,

Michael A. Murphy

Manager, Technical & Administrative

Michael a. Murphy

Support Staff, ANM-103L

# 1.2 Rigger Qualifications

In order to pack and maintain the Aviator parachute system, the *FAA Senior or Master Rigger - or foreign equivalent -* must possess a BACK rating endorsement to their certificate. Since the P-124 / AVIATOR system is radically different from old-style round parachutes, the rigger should be trained to pack ram-air parachutes prior to certifying the Aviator for emergency use.

FAR Part 65.127( ) No certificated parachute rigger may -

(e) Pack, maintain, or alter a parachute in any manner that deviates from the procedures approved by the administrator OR the manufacturer of the parachute; or (f) Exercise the privileges of his certificate and type rating unless he understands the current manufacturer's instructions for the operation involved.

ANYONE who circumvents Rigging Innovations, Inc. instructions is in violation of FAR Part

65.127 and is therefore performing an illegal procedure.

# 1.3 "Am I Qualified to Use this Equipment?"

As the new owner of an **Aviator** emergency parachute system, before you use it, it is very important that you can answer yes to several questions. Only by answering these questions that follow can you be assured that you have the necessary training and/or experience to safely utilize modern parachutes

**Question 1:** Does my training qualify me for using this equipment?

Advanced equipment such as the P-124 Aviator has features requiring experience and training to be used safely. For example, the ground school portion of a first jump course will teach the basics of steering and landing modern ram-air parachutes.

**Question 2:** Have I been briefed or trained in the operation of this equipment by qualified personnel such as an instructor or licensed rigger?

If you have been trained on older types of round parachutes, there may be certain features of the Aviator that are unfamiliar. Make sure that you receive a thorough briefing from a certified instructor or rigger for the Aviator and ram-air parachute you are about to use.

#### **Question 3:** Does the Aviator harness fit properly?

Can you see and/or reach the ripcord handle? The P-124 Aviator, is built in a variety of lengths, and widths, and has an adjustable harness. These configurations along with options such as flotation, oxygen, etc., make adjustment to fit the individual extremely important to the safe operation of the system. If the system does not fit properly, the ripcord handle may be either inaccessible or it may move during egress causing difficult or impossible deployment.

The above questions dealt with your ability to safely wear and use the P-124 Aviator. If you have answered "Yes" to all the questions, you should feel comfortable in using our equipment. However, there are additional factors that do not relate to our product that may influence your decision and ability. If you have any questions or feel uneasy about using this parachute equipment in an actual emergency, do not hesitate to ask a qualified Parachute Instructor, FAA Certified Parachute Rigger, or contact Rigging Innovations at 520-466-2655 for any further information or training you feel necessary.

### 1.4 EMERGENCY BAILOUT PROCEDURES

Conscientious pilots establish and practice emergency procedures on a regular basis. When an emergency occurs they can quickly and correctly handle the emergency without having to stop and think through each step.

Here is a brief outline of a typical bailout. Procedures must be reviewed and modified for each different type of aircraft.

Make the decision to bailout early, while you still have time.

- Remove headgear headset or oxygen mask.
- Jettison canopy or door, release seat belts and exit the aircraft.
- As soon as you are clear of the airframe (about 1 second), look at the ripcord. Grasp and pull the ripcord with both hands. Throw it away so it cannot entangle with the deployment of your parachute.
- Look up at the parachute. Grab the yellow steering toggles. A tacking thread holds them in place while packed. Break the thread by pulling both toggles down to shoulder level simultaneously.
- Steer towards the nearest open area.
- Face into the wind for landing. Do this with enough altitude to avoid turning near the ground.
- Prepare for landing by pressing legs together with knees slightly bent. This action will prepare your legs to absorb landing forces.
- Prepare to slide.
- Collapse the canopy by pulling in one suspension line hand over hand.
- Stand up, dust yourself off and congratulate yourself on successfully handling an inflight emergency and choosing an Aviator.

# 1.5 Customer Service Policy and Limits

# **Harness and Containers**

RI will provide no charge repair service for repairs that RIGGING INNOVATIONS INC. has determined to be the result from defects in material or workmanship for a period of SIX MONTHS from the DATE OF PURCHASE. Date of purchase and proof of purchase must be supplied to RI by the customer with the item to be repaired free of charge.

# **Unauthorized Modifications/Alterations**

RI will charge for repair service when the damage is determined to be caused by unauthorized modification or alteration of the product. RI reserves the right to refuse to repair any product so modified or altered.

# **Improper Use**

RI will charge for repairs caused by improper use, or abuse such as exposure to chemicals, saltwater, improper washing, improper packing, excessive exposure to sunlight, or negligence of the part of the user (i.e. jumping already damaged equipment).

# **Limits**

RI reserves the right to refuse to service equipment for which material and/or manufacturing patterns and specifications no longer exist.

# **Configuration**

Articles sent in for repair should be sent in with all parts. RI may request and require additional information pertaining to the product.

# Accessory Part - Replacement

RI will recommend replacement of harness and container component parts based on inspection when safety is a factor due to normal wear and tear or maintenance of the product.

# <u>Product Improvement</u>

Product improvements will be available as an option to customers.

# 1.6 Table I. Parts List

QUANTITY	DESCRIPTION	PART NUMBER
1	AVIATOR HARNESS/CONTAINER ASSEMBLY	6611 - ( )
2	STEERING LOOPS	2613 - (1)
1	RIPCORD	2511 - (1)
1	CLOSING LOOP	2913 - (4)
1	STEALTH PILOTCHUTE	2237 - ( )
1	PARACHUTE DEPLOYMENT BAG AND BRIDLE	2117 - ( )
1	PRECISION AERODYNAMICS	P-124 - ( )
	P-124 EMERGENCY PARACHUTE	
1	OWNER'S MANUAL	1317 - (1 )

NO SUBSTITUTION OF COMPONENT PARTS IS AUTHORIZED!

# Section 2.0 Component Compatibility

#### 2.1 Parachute

Only P-124 series parachutes manufactured by Precision Aerodynamics, Inc. are compatible with and may legally be packed into Aviator containers. IF INCOMPATIBLE CANOPIES ARE USED WITH THIS SYSTEM, IT COULD FAIL TO OPERATE AS DESIGNED RESULTING IN SERIOUS INJURY OR EVEN DEATH.

# 2.2 Orange Warning Label Placard Data

The following table shows the four sizes of the P-124 currently compatible with the Aviator system. The orange warning label will be stamped with the appropriate information to inform the user of the weight and speed limitations of the particular system in use. It is important for both the user and the Parachute Rigger to know and understand these limitations.

# 2.3 Table II. P-124 Weight / Deployment Speed Limitations

Manufacturer	Model	Max. deployment speed (knots)	Max. gross weight (lbs/kg)
Precision Aerodynamics	P-124 / 179	150	186 / 85
Precision Aerodynamics	P-124 / 212	150	227 / 103
Precision Aerodynamics	P-124 / 246	150	263 / 119
Precision Aerodynamics	P-124 / 280	150	300 / 136

# 2.4 Deployment Bag and Bridle

Only a Rigging Innovations deployment bag and bridle assembly of the correct size and properly labeled with P/N 2117 - ( ) is compatible with the Aviator. No other deployment bag is approved for use with the Aviator system.

# 2.5 Pilot chute

Only the Rigging Innovations Stealth pilot chute P/N 2237 - (), is compatible with the Aviator system. The design of the Stealth pilot chute, together with the Aviator deployment bag is integral part of the thin profile this system offers and provides superior deployment characteristics. No other pilot chute is approved for use with the Aviator system.

# 2.6 Ripcord

The Aviator system uses a 1-pin ripcord with a mini trapezoid handle Rigging Innovations P/N 2511 - (1). **No other ripcord is approved for use with the Aviator system.** The handle is located chest high on the wearer's left side and is mounted in a pocket covering the chest strap. The ripcord pocket is designed to help prevent the threading of the chest strap through the ripcord handle.

# **CAUTION**

Threading the chest strap through the ripcord handle would result in an impossible ripcord pull and death.

# Section 3.0 User Information

# 3.1 Harness Adjustments and Fitting

The base Aviator harness configuration, has five points of adjustment (*Figure 1*). They are, chest strap (a), two leg straps (b) and two main lift webs (c). The main lift webs may be adjusted to compensate for different torso lengths. Adjustments should be made in the following manner:

- 1. Open Velcro harness covers (d) to preset main lift webs to small, medium or large. (The ripcord pocket is mounted on the left harness cover.) Tuck both Adjust-a-Tabs into same sized pockets. For the large position the harness is fully extended and the tab is stowed under the wrap-around velcro strap. (*Figure 2*) Close the harness cover.
- 2. Put on the Aviator.
- 3. Fasten and tighten leg straps. Secure the running end in the elastic provided.
- 4. Fasten the chest strap so there is no slack when standing erect. (Not too tight.) Secure the running end in the elastic provided.

# 3.2 Maintenance Procedures

The Aviator begins its life as one of the finest pieces of emergency equipment you can buy. It is up to the owner to maintain it in top condition. Below are certain areas that you and your rigger should check on a regular basis to ensure proper operation and long life of your Aviator.

# Before Each Flight You Should Check:

1. Ripcord pin, cable, housing handle and pocket. The pin should be seated in the closing loop and the rigger's seal in place as shown. (*Figure 3*). The ripcord cable should move freely inside its housing. The handle should be securely held in the pocket by Velcro fastener.



Figure 1

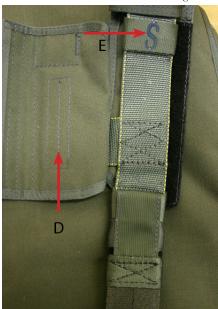


Figure 2



Figure 3

- 2. Harness adjustment hardware. Check for condition and proper operation. Harness adjustments must be the same on both sides. Leg strap snaps must snap closed. ADJUSTABLE QUICK EJECTORS: If the spring gate does not close as shown (Figure 4a) the fastener must be replaced. Return your damaged Aviator to Rigging Innovations for repair. When wearing the Aviator, be sure that the Quick Ejector latch handle is snapped closed (Figure 4b) and NOT left ajar as in Figure 4c. ADJUSTABLE B-12 SNAPS: If the spring gate sticks in the open position, a srewdrivier can be used to slightly spread the gate as shown in Figure 4d.
- 3. Check that pin protector flap tucked in (*Figure* 5).



Figu

IF ANY WEAR OR UNUSUAL CONDITION IS FOUND, CONSULT THE MANUFACTURER OR A QUALIFIED PARACHUTE RIGGER IMMEDIATELY!



Figure 4a



Figure 4b



Figure 4c

#### 3.3 Scheduled Maintenance

Your rigger should thoroughly inspect your Aviator at every repack cycle to ensure that all components are in airworthy condition. *These areas should include:* 

- 1. Pilotchute, bridle and deployment bag.
- 2. Parachute fabric and lines.
- 3. Connector links tight.
- 4. Ripcord pocket secure.
- 5. Harness and container in good airworthy condition.
- 6. Flex-Ring buffers. Inspect inside of buffers for excessive wear (*Figure 6*).



Figure 6

Buffers are designed to prevent wear to the harness webbing. The inside should look shiny and smooth and may be discolored from the hardware finish. If the buffers are cut or frayed, it may be caused by damage to the hardware or foreign matter imbedded in the webbing. If buffer damage is excessive, the Aviator should be returned to Rigging Innovations for inspection and repair.

# 3.4 Alterations and Repair

Rigging Innovations, Inc. does **NOT** authorize alterations to the Aviator harness and container system. Any major repairs must be made by the manufacturer or a designated representative. Contact Rigging Innovations, Inc., at **520-466-2655**, for the name of a designated representative or authorized service center in your area.

# 3.5 Service Life

With the use of modern first quality materials, Rigging Innovations, Inc. and Precision Aerodynamics, Inc. have established a <u>15-year service life</u> from the component date of manufacture for the Aviator system. At that time the component must be returned to the manufacturer or its authorized representative for inspection and evaluation. Based on condition, a service life extension may be granted at that time.

# 3.6 Repack and Service Cycles

Rigging Innovations authorizes up to and including a one (1) year repack cycle for the Aviator Parachute System. However, this time interval does not supersede the repack cycle mandated by either

the national aviation authority of the country of use or any relevant military organization of that country.

For repack cycles longer than six months, it is recommended that the Aviator have an interim external inspection every six months. If there are any signs of damage or contamination, the Aviator should be inspected and repaired as needed, before being repacked and returned to service.

# 3.6 Cleaning

#### CORDURA® Recommended Stain Removal Methods\*

STAIN	REMOVAL METHOD
Coffee, Fruit Juice, Milk, Soft Drinks, Tea, Tabasco Sauce, Wine, Urine	Detergent <sup>1</sup> /blot/water/blot
Catsup, Chocolate, Blood	Detergent/blot/ammonia <sup>2</sup> /blot/water/blot
Mustard	Detergent/blot/vinegar <sup>3</sup> /blot/water/blot
Spicy mustard (turmeric), Kool- Aid®	Solvent <sup>4</sup> /blot/detergent/blot/vinegar/blot/water/blot
Cooking oil, Crayon, Lipstick, Mayonnaise, Motor oil, Show polish	Solvent <sup>4</sup> /blot/detergent/blot/water/blot
Chewing gum	Freeze with ice cube/ scrape/solvent/blot/ detergent/blot/ water/blot
Furniture polish, Ink (Permanent)	Paint remover <sup>5</sup> /blot/solvent/blot/detergent/blot/ ammonia/blot/vinegar/blot/water/blot
Furniture polish, Shoe polish	Seek the help of a professional upholstery cleaner
Notes on Cleaning Agents The following procedures should be used with all cleaning agents. A clean, white cloth dampened with the recommended cleaning agent should be used in an inconspicuous place to test for colorfastness.  Optimum cleaning will be achieved by not overwetting the cloth and by turning it frequently to keep it clean. Rings can be avoided by working from the outer edge of the spot toward the center. This process should be repeated until the spot is removed or there is no further transfer to the cloth.  Detergent	
NOTE: Oily and greasy stains In addition to the recommended method, some stains (e.g. perspiration/body oils) respond well to dry cleaners such as "HOST" (Racine Industries), "CAPTURE" (Milliken) and "K2R" (Texize). Carefully follow directions on the label.	
* Recommendations based on fabrics finished with Du Pont Teflon® WBC Soil and Stain Repellent for CORDURA®. The methods were effective on stains that were allowed to sit untreated overnight. Removal is usually easier when stains are cleaned immediately.	

# Section 4.0 Rigger Information

#### Recommended Tools List: 4.1

The following tools are those that have been found suitable by the manufacturer and many riggers. However, individual riggers may use whatever tools they are comfortable with and suits their individual packing techniques.

- 1- tie cord red or brightly colored
- 1-packing weight, 22 Lbs. (10 Kg.)
- 1-Packing Paddle at least 18" (46 Cm.)
- 1-Pull-up cord, 72" (1.82 M) Gun Cleaning Rod, .22 CALIBER (5.56 MM)
- 1-Closing/Knee Plate
- 1-Temporary pin w/ flag



Figure 1

WARNING: Note: T-Bars or "Positive Leverage Closing Devices" must be used with caution. These tools can cause impossible ripcord pull forces and damage containers.

# 4.2.1 Assembly and Folding the Parachute.

Rigging Innovations mandates PRO (Proper Ramair Orientation) packing of the canopy. The canopy may be laid on its side on the floor, hung over the shoulder, or suspended from a hook to begin the packing process. This is left to the rigger's experience and personal technique. This is the method used in the testing and certification and, for the Aviator, results in the best bulk distribution and the greatest comfort for the wearer. The molar method is used to insert parachute into deployment bag. Regardless of technique used, the canopy must look like the configuration shown in Figure 21 at that stage in the packing and prior to placing the canopy in the deployment bag.

**Step 1** Assemble the P-124 parachute canopy to the AVIATOR harness and container assembly ensuring the following:

- a) Line continuity is correct.
- b) Connector links are tightened according to canopy manufacturer's instructions. Tight is usually considered to be finger tight plus one quarter turn of the barrel.
   WARNING: If Maillon Rapide links are too
  - **WARNING:** If Maillon Rapide links are too tight, the barrels may crack.
- c) Connector links are marked with a "tell-tale" dot of nail polish.
- d) Steering lines are routed correctly through slider.
- e) Steering toggles are attached to end of steering line and routed through guide straps on backside of rear risers. Break tacking with one doubleturn read seal thread at the top of the toggle just below the red stop wrap (*Figure 2*) and at the bottom center of toggle through riser (*Figure 3*).
- f) Closing loop length is correct. (See Table IV).
- g) Ripcord is installed into housing at left chest strap. Secure ripcord handle in ripcord pocket. Locate ripcord cable where it exits at left shoulder. Insert ripcord cable between two layers of top flap.



Figure 2



Figure 3

# 4.2.2 Closing Loop Length

A - Loop length from knot to end. (*Figure 4*)

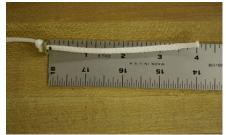


Figure 4

B - Loop length installed. (*Figure 5*)

Table IV - Closing Loop Lengths	
	ALL SIZES
Α	4.0"/ 102 mm
В	2.5"/ 64 mm

The state of the s

Figure 5

**Step 2** Using the tie cord, tie the risers together securely and evenly at the connector links. (*Figure 6*) Lay the 22 pound (10 kg) packing weight on container to keep it from moving during packing.



Figure 6

**Step 3** Lay the parachute canopy neatly on its left side. Pull top skins until top seams and line groups are evenly tensioned as shown in (*Figure 7*).



Figure 7

23

**Step 4** Split the nose of the parachute by folding 3 cells under against the floor, leaving 4 cells laying flat (*Figure 8*)



Figure 8

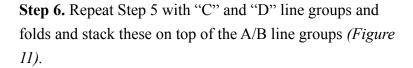
**Step 5** Kneeling at the top of the canopy, facing the harness - slide your left hand under the top 3 cells halfway between A line group and B line group. (*Figure 9*) Holding light tension on B lines, raise B line group and move it left until it is in line with A line group and flake the top three cells out to your left. (*Figure 10*) Still holding B line group, shift left hand to other side of center cell and flake 3 cells back to your right. The B lines are now in line and on top of the A lines.



Figure 9



Figure 10





**Step 7** Starting with either side, fold the canopy stack back to clear the nose. Take the bridle of the deployment bag and tie it around the lines immediately below the stabilizers (*Figure 12*). This will hold the lines together and keep the center of the canopy stack organized. This serves as a flag and is impossible to forget since you cannot complete the packing of the canopy without removing the bridle from the lines.



Figure 12

**Step 8** Clear the panels between the A-B line groups at the top (*Figure 13*) and the bottom (*Figure 14*).



Figure 13



Figure 14

Grasp the panels at the midpoint of the fold and fold them UNDER (*Figure 15*) to make a reduction fold to allow for the width of the deployment bag (*Figure 16*).

**Step 9** Repeat Step 8 with the B-C and C-D line groups for this side.



Figure 15



Figure 16

**Step 10** Flip the tail panel to the opposite side that has been folded, and repeat the process described in Step 8 with the opposite side of the canopy (*Figure 17*).



Figure 17

**Step 11** Flake the tail panels evenly to each side with the center seam in the center of the stack. The data panel should be to the right of the seam. (*Figure 18*).



Figure 18

**Step 12** Fold the center of the tail upward and check the location and straightness of the individual line attachment tape groups (*Figure 19*).



Figure 19

**Step 13** Pull the slider up into position. Fold the tail back down and spread the full width of the cell (*Figure 20*).



Figure 20

**Step 14.** Wrap the tail around the canopy stack leaving the nose panel exposed (*Figure 21*).



#### Figure 21

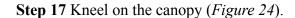
# **4.2.4 Putting Parachute in the Deployment Bag**

**Step 15** Open zippers on both sides of D-bag. Lay D-bag on floor with line stow pocket on top. Fold top flap of D-bag towards the pilotchute. (*Figure 22*)



Figure 22

**Step 16** Gently lift the parachute and slide the deployment bag under until the lower corners of deployment bag are approximately 4 inches (10 cm) below corners of tail. (*Figure 23*)



Following the center seam, split the upper portion of the canopy stack into right and left "ears" (*Figure 25*).

Take the center seam fabric and roll it over the gathered fabric portion of the center cell, but do not capture the nose of the canopy (*Figure 26*).



Figure 25



Figure 26



Figure 23



Figure 24

**Step 18** One at a time, dress and fold the "ears" to same width as molar in deployment bag (*Figure 27*).



Figure 27

Fold the upper portion of the ear under and stuff the ear into the molar of the deployment bag. (*Figure 28*)

Hint: The ears should be full and firm so the finished pack job will be softer at the bottom.

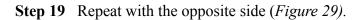




Figure 29



Figure 28

**Step 20** Using the knee plate as a fold guide, hold the canopy in place and use the packing paddle to pick up the suspension lines evenly and fold upward towards the top of the bag (*Figure 30*).

# REMOVE THE KNEE PLATE!



Figure 30

**Step 21.** Close the side zippers being careful not to catch any canopy fabric (*Figure 31*).



Figure 31

**Step 22** Open line stow pocket and fold up towards the bridle (*Figure 32*).



Figure 32

Cover the hook Velcro on the bag with the Velcro line protector (*Figure 33*).



Figure 33

**Step 23.** Lock the mouth of the freebag with the suspension lines and Safety Stow elastic (*Figure 34*).



Figure 34

**Step 24** Stow the suspension lines in black elastic loops starting at the upper portion of the stow pocket (*Figure 35*).



Figure 35

Distribute bulk evenly to minimize lumps. Leave last 8 to 10 inches of suspension lines exposed. (*Figure 36*) Close the line stow pocket. Do not allow hook Velcro to snag lines.



Figure 36

# 4.2.5 Placing Deployment Bag in Container

**Step 25** Remove tie cord from connector links. Grab all four connector links with one hand. Grab bridle with other hand. Pivot D-bag on safety stow and lay it upside down on bottom flap (*Figure 37*).



Figure 37

**Step 26** Thread pull-up cord through closing loop and grommet in center of deployment bag. Pivot D-bag on safety stow to lay right side up on container, centered on loop. Line stow pocket faces up. S-fold bridle into channel on deployment bag. (*Figure 38*) Leave 5 feet of bridle exposed.



Figure 38

# **4.2.6 Closing the Container**

**Step 27** Close inner top flap (#1 flap) and secure with temporary pin (*Figure 39*).



Figure 39

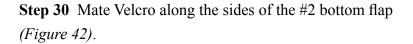
**Step 28** S-fold last 5 feet of bridle lengthwise on top of inner top flap #1. (*Figure 40*) Use gun cleaning rod to thread pull-up cord through grommet in Stealth pilotchute from the bottom and out the top.



Figure 40

**Step 29** Center base of pilotchute on grommet in #1 flap. Compress pilotchute while stuffing fabric and mesh inside spring coils. Point arrow on top of pilotchute toward top or bottom of container (*Figure 41*). Secure with temporary pin.

WARNING: Do not leave fabric or mesh outside coils as a coil lock could occur and pilotchute launch may be inhibited.



Close bottom flap (#2 flap) and secure with temp pin. (*Figure 43*)



Figure 41



Figure 42



Figure 43

**Step 31** Close right side #3 flap, then left side #4 flap. Secure with temporary pin. (*Figure 44*) Double check that free bag is clear of pilotchute cap. You should only be able to pull about 1/2 inch (11mm) of loop through the first 4 flaps. If you can pull more, loop is too long. Open container and shorten loop.



Figure 44

**CAUTION:** Place closing plate on bottom edge of top flap. Placing closing plate on outside pin protector flap will kink or break pin protector flap.

**Step 32** Close top flap (#5 flap) and secure with ripcord (*Figure 45*).

The rigger should determine how tight the closing loop is, and decide whether to perform a pull test.

**WARNING**: MAXIMUM ALLOWABLE PULL FORCE ON THE RIPCORD IS 22 POUNDS (10 KILOGRAMS).



Figure 45

Tuck the pin protector flap into the pocket on the bottom flap (*Figure 46*).



Figure 46

Once the rigger is satisfied that pull force is less than 22 pounds (10 kilograms) seal the ripcord and log pack job. Place the data card into the data card pocket located behind the top of the orange placard label on the backpad (*Figure 47*).



Figure 47

# **COUNT YOUR TOOLS!**

# RIGGING INNOVATIONS INC

P O Box 86 Eloy AZ 85131

Telephone: 520.466.2655 Fax: 520.466.2656 tech@rigginginnovations.com