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INTRODUCTION

The purpose of this document is to re-iterate BPA Riggers' Committee decisions and rulings and BPA Safety Notices and Information that have been misinterpreted or might otherwise be lost through time. It has been derived from the minutes of the BPA Riggers Committee meetings since 1990.

Decisions that have been recorded elsewhere within the BPA systems, or that have since been superseded or overruled are not duplicated here.

This document is NOT a complete listing of all rules; it is a listing of rules that have not been recorded elsewhere. It is the readers' responsibility to keep up to date with, and ensure any actions they take fit in with, the rules of the BPA. This manual is intended only as a guide - some items/rules may have been missed or superseded.

It is assumed that readers and users of this document are aware that it MUST BE READ in conjunction with all BPA Rigging and related documents, in particular -

The BPA Operations Manual

BPA Riggers Committee Tandem Modifications website at <http://members.aol.com/tandemmods/>

BPA Rigging Syllabuses

BPA Form 194 "Riggers Sub Committee Terms of Reference and Rules of Procedure"

All other BPA rigging related forms, available from the BPA website at www.bpa.org.uk

Much credit is due to Rigger Examiner Bill Sharp, who undertook the huge task of providing and analysing the meeting minutes in electronic form.

MISCELLANEOUS ITEMS

Advanced Packer Ratings and Advanced Packing Certificates

NB In this section, differences are recorded between the various types of Reserve Packing Qualifications. "Advanced Packing Certificates" and "Reserve Parachute Packing Certificates" refer to packing certificates that are endorsed for individual reserve canopy/container combinations (also known as the grandfather clause); "Advanced Packer" refers to the current system of qualifying to pack reserves via the Advanced Packer rating.

1. Anyone who currently holds a Reserve Parachute Packing Certificate or Advanced Packing Certificate can present himself or herself for the Advanced Packers examination phase.
2. Specialized inspections such as bromocresol or tensile strength testing can only be carried out by those who have had their reserve packing certificates specifically endorsed by a Rigger or by those who have passed a BPA Rigging or Packing course
3. The Advanced Packer rating is split into round, square and tandem ratings. Anyone progressing onto a rigging course needs to hold the Advanced Packer rating on both round and square reserves.
4. If the pre-printed text is not already so endorsed, then holders of Advanced Packing Certificates or Reserve Parachute Packing Certificates must have their certificates so endorsed by an Advanced Rigger or Advanced Instructor before they can assemble equipment.
5. To become a Tandem reserve packer, an Advanced Packer needs to attend a Advanced Packer course for tandem reserves.
6. As from the 1st April 2004 holders of Advanced Packing Certificates are not able to have new equipment types to their Packing Certificates.
7. Owners of rigs packed by Advanced Packing Certificate holders may be asked for evidence that the packer is qualified to pack that particular equipment. A photocopy of the packer's Certificate with relevant endorsement will suffice.

Airtec and Cypres

1. For Parachute Riggers to install Cypres units where machine stitching is involved, the following is required:
 - i) The PR must present themselves to a Rigger Examiner for assessment by carrying out a Cypres installation
 - ii) The Examiner then sends a recommendation to the Riggers Committee for their consideration and final approval

Ratings and BPA membership

1. A Full BPA membership is required for anyone holding a BPA Rigger or Advanced Packer Rating. Associate membership is not sufficient.
2. Full BPA membership should be verified by the organising RE or AR at the start of BPA Rigging or packing course.
3. Advanced Riggers should be aware of what they are signing for at BPA rating renewal time and look closely at the rigging tickets that they are signing up.
4. An Advanced Instructor signing up a reserve Packing Certificate for someone packing under the grandfather clause system must be qualified to pack that item themselves
5. A rigger cannot sign up their own rating renewal
6. Both Reserve Parachute Packing Certificate and Advanced Packing Certificate holders have to be signed up yearly and demonstrate currency.

Rigging And Packing Courses and Candidates

1. Candidates interested in attending rigging courses should register their interest with the BPA Office, who will liaise with Riggers planning to run courses.
2. It is the responsibility of those interested in becoming riggers to find a supervising rigger.
3. Rigger Course Organisers should notify the Riggers' Committee and receive approval before running any intended courses. However, in case of short notice between Riggers' meetings, the Riggers' Chairman, TO or NCSO can give permission for the course to run.
4. A listing of those qualified to run the teaching and examination phases of Advanced Packer Courses is held at the BPA office.
5. It is the responsibility of those running courses to ensure that they are correctly qualified and registered on this list.
6. It is the responsibility of those running courses to ensure that the BPA office is informed of any amendments to this list after a course is run - e.g. any Advanced Riggers now qualified to run such courses

Course Exemptions and Time extensions

1. Exemptions to the requirements for attending courses must be presented to the Riggers' Committee for approval. Each individual case must be considered separately as exceptions to rules cannot be covered by blanket exemptions. The individual's name and the time period of the exemption must be reported within the minutes.
2. Time extensions or exemptions for rigger candidates should be requested from the committee by the supervising rigger.

Qualification

1. Ratings can be issued at courses following successful completion.
2. All successful candidates of Rigger and Advanced Packer courses must be recorded by name and course date within the Riggers' Minutes.

Riggers Packing Certificates

1. Riggers qualified before 1997 should have 'All Types' added to their packing certificate by an Advanced Rigger.
2. Riggers qualified between 1997 and 2002 should have an Advanced Rigger (not themselves) or above review their packing experience and log to date and endorse their packing certificate accordingly as "All Types (round, square AND/OR tandem)".
3. Riggers qualified since 2003 pack according to their specific Advanced Packer Rating qualifications and certificates."

Packing and Rigging Errors

Anyone making packing or rigging errors is answerable to STC via the Riggers' Committee and may be subject to disciplinary action

BPA Insurance

The BPA third party liability insurance covers the following agents for rigging and packing matters, when those agents are operating to the requirements of the BPA Operations Manual:

“Any firms whose business is rigging, and independent or freelance rated or certificated riggers and packers and/or their trainees, and including but not limited to ‘Bail out’ rig used in emergency or critical situations, but only whilst acting for or on behalf of a BPA member.”

Thus they are not covered when working on kit for those outside the BPA, e.g. Glider rigs or Pilot bail out rigs, other than BPA jump pilots. Neither does the insurance cover equipment manufacturers.

Tandem website

A listing of all BPA approved Tandem system modifications is currently found on the internet at <http://members.aol.com/tandemmods/>

New Equipment Clearance

The Riggers Committee must clear new student equipment before that equipment is used at BPA centres.

Riggers Committee: Operations Manual Amendments

Amendments to the Operations Manual can only be made at a Riggers Committee by having them included as main agenda item.

Riggers Committee: Approval of Minutes

1. Those people whose proposals are discussed at meetings should read and check the detail of their proposal for accurate recording in the subsequent minutes.
2. Those who propose or second the previous Meetings Minutes should have been at that meeting also

Riggers Committee: Election of Chairperson

The Chairman is to be elected at the 1st meeting every year

DOCUMENTATION

Rigging and Packing Work

1. When updating the packing card with any work carried out, identifiable rigger numbers must be recorded as well as signature.
2. Riggers must maintain a printed log of all work carried out
3. Reserve Parachute Packers must keep a printed log of all reserves packed.

Reserves

1. Only those people who hold a qualification to pack a reserve can sign the Record of Inspection or packing card. Trainee Advanced Packers cannot sign for reserve repacks or inspections - these must be signed for by the Supervising Rigger.
2. Both Packing cards and Inspection Checklists are required for each reserve repack. The packing card is a history of the equipment, with the inspection checklist a detail of the most recent repack and any work carried out

BPA Paperwork

BPA Reserve Inspection logs cannot be used when not packing under the auspices of the BPA

Safety Notices

Reserve packers must ensure that all relevant Safety Notices are applied to any equipment they may be working on. Bear in mind that a lot of old Safety Notices still apply.

Student Equipment Modifications

Any modification to student equipment, including tandem, must be approved by the BPA Riggers Committee before use. The approval process starts with the submission of a completed BPA Form 209, completed with drawings, for discussion as a main agenda item at the next Riggers Meeting.

TECHNICAL ITEMS

This section is not a substitute for referring to the BPA Safety Notices and Information index. This section is meant as clarification of information that has been misinterpreted in the past.

3-Ring Risers

1. Type 17 mini risers and RSLs

For Type 17 risers, Reserve Static Lines can only be used on the reinforced version of the riser. The one exception to this is Type 17 Reversed 3 ring risers where an RSL can be fitted whether the riser is reinforced or not.

2. RW 1-82 / 1-83 Rings

Safety notices still apply to these types of rings regarding testing and replacement.

3. RSL shackles

Swedish release RSL shackles can be changed for rapide links under the following conditions:

- a) The minimum size rapide link is to be a stainless steel #3.5 rated at 220 kg
- b) The complete assembly is supplied by the equipment manufacturer with the RSL attached with a rapide link or refer to c & d below.
- c) The person replacing the shackle with a rapide link is to insure that the overall effective length of the RSL is not altered by the change from the brass shackle to a rapide link.
- d) An Advanced Rigger is to inspect the equipment with the RSL and rapide link installed.

4. Square Reserves into short riser Racer containers

Letter from Jump Shack listing considerations when installing square reserves into Racer containers with very short risers. See original for further details.

RAPS

RAPS equipment cannot use the small 3-ring release set

AFF

For AFF equipment fitted with and using throw-out pilot chutes, the only approved pilot chute pouch is the "Rip-away" spandex pouch fitted with a secondary release handle.

AADs

1. AAD installation on piggyback equipment must conform to the container manufacturer's instructions. When no container manufacturer's instructions exist then installations must conform to the AAD manufacturer's installation instructions
2. Anyone coming across a CYPRES unit which cannot be switched on, or noticing any discoloration of the reserve tray should take the unit to an appropriately qualified person who will inspect the system for CYPRES battery leakage
3. Service dates and battery change dates on AAD's must be adhered to as per manufacturers' recommendations. No reserve repack can be dated for a longer period than the expiry date of any AAD component part. In the case of a Cypres battery, the original reserve packer can change the battery and can then extend the repack date to the maximum original period allowed

Rigging Line Connector Links / Soft links

1. The only acceptable rigger manufactured rigging line main canopy connector links are those made to TSE drawing 2-88. These may be made of Dacron 525 as well as 800lb Dacron
2. Parachutes De France and Performance Designs soft links are approved for use.
3. Only Performance Designs "Slinks SR-1" and Aerodyne soft links are approved for use on reserves.
NB 1 These are the only kind approved for use on reserves.
NB 2 Performance Designs "Slinks SM-1" (Main canopy slinks) cannot be used on reserves. Beware the similar name, but different clearance for use.

Use of mains as reserves

Any canopy that has been used as a main on a regular basis must not be used as a reserve

Cutaway cables

There are many variables in determining the length of a cutaway cable for each side housing on any particular rig. Swapping of handles, especially between different types of rig, must be done with due consideration of all factors by a qualified individual.

Lifing of equipment

A reserve parachute assembly within the BPA system is lifed at each repack for a period of 6 months.

Pilot chute toggles

Old thread spools should not be used to manufacture pilot chute toggles

Ripstop Tape repairs

Ripstop tape can be used for small repairs on main canopy assemblies at the discretion of a qualified rigger.

Tensile test

The PIA method of tensile testing is the accepted method of testing fabric strength. See Poynter's manuals for details

Safety Notices Clarification

1. Work required for Parachutes De France Safety Bulletins 92003 (Galaxy cutaway system), 92004 (Cutaway housings fixing), 92005 (Mini risers) must be carried out by an Advanced Rigger
2. Zerox reserve modification BPA Safety Notice 1/99

The only approved reserve container flap modifications for this notice are those produced by TSE and the RWS. "CRW bumps" are not acceptable.

3. Baby D rings

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BPA Safety Information Notice 5/94 applies to all Baby D Rings, not just the H219

4. Tandem Vector Reserve Pins

BPA Safety Information 1/99 – The old style soldered reserve pin can no longer be used.

Tandem

Black Teflon cables cannot be used on tandem kit

RWS advised that the EZ384 canopy is not compatible with the Tandem Vector container made for a PD360

Traditional (Front and Back) Kit

1. Front mount reserve Tie bar lengths

- a: Low mount reserve:
Tie downs can be as short as the distance between the harness 'D' rings.
- b: High mount reserve, without risers:
Minimum of 18", maximum of 24"
- c: High mount reserve, short risers (under 8" long ; tie down on links):
Effective length 24"
- d: High mount reserve, with longer risers (over 8" long ; tie down cannot be on links):
Tie bars are only to be between the snap hooks. Minimum of 18", maximum of 24"

2. Main and reserve line lengths

Line lengths should be compatible with the type of canopies being used. Be aware that there is a minimum line length requirement also.

3. Ripcord Pin Protection Flaps

Container ripcord pins must not protrude below the protection flaps

4. Pin force on front mount reserves

The maximum allowable force to move the pins on a chest mount reserve is 15lbs

Tacking of 2 pin quick loops

The requirement to tack 2 pin quick loops together has been lifted for loops made of Cypres line. The tacking of 2 pin quick loops made of kevlar line is still mandatory

Brake line twists

Packers should remove twists from brake lines at each repack. Neglecting this has resulted in deployment problems.

Acid Mesh

1. Bromocresol life expectancy:
Users of Bromocresol are responsible for ensuring the quality of the solution they use. NB Bromocresol solution has an expected life of no more than two years; in powder form the shelf life is five years.
2. Bromocresol testing of mesh must be carried out at every repack of a meshed round reserve.
3. National Parachute Manufacturers Bulletin 1/6/89
The BPA requirement with respect to National Parachute Industry Bulletin 1/6/89 is that these canopies must be tensile tested at every 6 month repack cycle, despite manufacturer recommending this every 120 days as per the US repack cycle

Packing Manuals

Where conflict occurs between manuals, a packer should follow the guidelines of the canopy manufacturer until the canopy is in the bag and then follow the container manufacturer instructions for the remainder of the repack.

Packers must have the appropriate manual to hand during the packing procedure

Reopening reserve pack jobs

It is unacceptable to open and re-close someone else's repack.

If someone opens another person's reserve repack for any reason a full inspection and repack must be carried out. Anyone signing for any part of a reserve repack is taking responsibility for the entire pack job, from inspection to closure.