

BRITISH PARACHUTE ASSOCIATION
SAFETY AND TRAINING COMMITTEE MEETING
COUNTY ARMS, GLEN PARVA, LEICESTER
THURSDAY 6TH DECEMBER 2001

Present:

John Hitchen	-	Acting Chairman
Mike Rust	-	NLPC
Pete Sizer	-	Headcorn
Pat Walters	-	Tilstock
Nick Everett	-	Target Skysports
Andy Paddock	-	Silver Stars
Dave Wood	-	RAFSPA
Alan Wilkinson	-	Skydive St Andrews
Chris Donaldson	-	Sibson
Phil Cavanagh	-	Black Knights
Karen Farr	-	Skydive Strathallan
Dennis Buchanan	-	NWPC
David Hickling	-	BPS, Langar
Ian Roseninge	-	Peterlee
Paul Applegate	-	Riggers Committee

Apologies Ian Cashman, Dave Johnston, Chris Lyall (Mike Rust represented Chris at the meeting), Mike Bolton, Ronnie O' Brien.

In Attendance:

Tony Butler	-	Technical Officer
Dr John Carter	-	BPA Medical Advisor
Trudy Kemp	-	Assistant to NCSO/TO

Observers: Kim Newton, John Curtis, Dave Lewis, Tony Goodman, Bernadette Whitaker, Peter Connor, John Harding, Stephanie Desnoyer.

ITEM

1. MINUTES OF THE STC MEETING OF THE 11TH OCTOBER 2001

It was proposed by David Hickling and seconded by Andy Paddock that the Minutes of the STC Meeting of the 11th October 2001 be accepted as a true record.

Carried Unanimously

2. MATTERS ARISING FROM THE STC MEETING OF THE 11TH OCTOBER 2001

Page 1, Item 2 – Matters Arising – CYPRES AADs It has been pointed out by Pat Walters that the final paragraph regarding AFF Students converting to throwaway is not compatible with Operations Manual requirements. **AFF Students are Category 7 until they have completed their consolidation jumps. Therefore, they must jump Student equipment and if a CYPRES is fitted that must be a Student CYPRES.**

Page 2, Item 2 - Matters Arising – Fatality – Tilstock. The Committee was advised that the Panel of Inquiry (Following the Board of Inquiry into the Fatal Accident of Iain Johnson), chaired by David Hickling, held their first meeting shortly after the last STC meeting. The Panel members were each allocated areas to work on. All

instructors had been sent a questionnaire to complete and so far the response has been quite good. An interim Report had been completed and was circulated to those present. David Hickling gave the meeting details of the report and the work to date.

The Chairman stated that this interim Report needed to be formally accepted by STC.

It was therefore proposed by David Hickling and seconded by Phil Cavanagh that the Interim Report by the above Panel be accepted, which included the following Recommendation and Points that the Chairman wished to bring to the attention of STC:

Recommendation of The Panel:

There is no evidence that “ The Parachute Centre” at Tilstock had acted outside the requirements of the BPA Operations Manual.

Point 1:

A person who was a part of the post accident situation did not make a Statement.

Point 2:

Board members requested that some thought be given to producing a “ Check List” for use by any Board member that arrives at an accident/incident site. This checklist, approved by the NCSO would be held at the DZs. Each DZ may require a specific/personalised checklist.

Note:

The above “ Check List” is not the same as the DZs own “ Action List” that they may have and follow after a fatal accident. The “ Check List” would contain items to be looked at that were peripheral to the accident.

Carried Unanimously

The Committee was advised that a checklist had been completed and would be distributed with the STC Minutes.

Page 3, Item 2 - Matters Arising - A.O.B (c). At the last STC Meeting it was decided that the matter of David Vowles suspended Approved Packing Certificate would be dealt with at this meeting. David stated at the last meeting that he would be in attendance.

David Vowles was not present at the meeting, therefore his Approved Packing Certificate remained suspended until he presented himself to STC.

Page 4, Item 5, Fatality – Topcliffe. The Committee was advised that the Panel of Inquiry (following the Board of Inquiry), chaired by Tony Goodman, met again that afternoon, following visits to talk to Merlin instructors. It is hoped that that Panel Report will be ready for presentation at the next STC meeting. It should be noted that the Panel has been unable to contact the ex-CCI concerned. It is believed that he is still out of the country. However it is still the Panels’ intention to complete their Report whether they were able to speak to the ex-CCI or not.

John Hitchen advised those present that there was some concern by the Panel

regarding one of the Instructors concerned, as to whether his teaching practices were up to date. Mr Hitchen had therefore, informed the instructor concerned that until the Panel had completed its investigations he could no longer instruct unless he was under the direct supervision of another instructor. Mr Hitchen hoped that STC would support him in this matter. There were no objections raised by those present.

Page 7, Item 7 (b) – Proposed Changes to Operations Manual. At the previous meeting a proposed change to the BPA Operations Manual had been accepted concerning the currency requirements of reserve packers. The Technical Officer confirmed that this rule would come into effect when the next membership renewal applications are completed.

3 MINUTES AND MATTERS ARISING FROM THE RIGGERS SUB COMMITTEE MEETING OF THE 11TH OCTOBER 2001

There being no matters arising from the previous meeting, it was proposed by Paul Applegate and seconded by Pat Walters that the Minutes of the Riggers Sub-Committee Meeting of the 11th October 2001 be approved.

Carried Unanimously

Paul Applegate then gave the meeting a resume of the Riggers meeting held that evening and stated that the Committee had discussed and accepted a request from Bill Sharp for acceptance of the new Relative Workshop (Vector) Tandem Sigma system for use within the BPA. Mr Applegate advised those present that the equipment had been well tested in the USA. Both the NCSO and another Rigger Examiner had seen the equipment and were both satisfied with it.

It was proposed by Paul Applegate and seconded by Pete Sizer that the Tandem Sigma system be accepted for use at BPA Clubs.

For: 12 Against: 0 Abstentions: 1

Carried

For information, Mr Hitchen advised those present that the Sigma was a completely different system from the Vector 1 and Vector 2 Tandem systems and that instructors qualifying on this system would mean that they could not use other Tandem Systems.

The NCSO advised the Committee that there was a Tandem meeting being held at the AGM and he encouraged Tandem Instructors to attend.

Paul Applegate advised those present that the Riggers Committee had also discussed and accepted a request from John Harding to change the reserve pilot chutes in Static Line Zerox equipment.

Mr Applegate stated that Mr Harding had been conducting extensive evaluations on low speed reserve openings on S/L equipment. He had found that at slow speed there are pilot chutes that are more effective than others.

The pilotchute that Mr Harding had presented for use was similar in construction to

the balloon type, but the lower half was mesh covered. Mr Harding stated that this pilot chute had manufacturers approval.

Following discussion on this matter, it was proposed by Paul Applegate and seconded by Pete Sizer that the pilotchute as presented by John Harding be accepted for use on Static Line Zerox equipment.

For: 11 Against: 0 Abstentions: 2

Carried

The NCSO advised those present that there was also an extensive evaluation taking place by a number of other centres on the subject of pilot chutes

4. FATALITY - HIBALDSTOW

The Committee was advised of a First Jump RAPS Student Stephen Priestley who was killed on the 18th November 2001 at Target Skysports, Hibaldstow.

A resume of the Boards' report, together with the Conclusions and Recommendations had been sent to CCIs with the Agenda. The members of the Board were; John Hitchen and Tony Butler.

At approximately 15.00 hours on Sunday 18th November 2001, Stephen Priestley boarded a Piper PA32 at Target Skysports in order to make his first jump following his initial training on the 6th October 2001 and Revision Training that morning. Also on board were three other static line parachutists and the Instructor.

The aircraft climbed to approximately 3,700 ft, during which time the Jumpmaster gave Stephen a pre-jump check. The aircraft then 'ran in' over the top of the PLA, at which time the first two parachutists were dispatched. The aircraft then circled and 'ran in' for a second time. Number 3 (Stephen) was then dispatched. As he exited the aircraft he was seen to immediately adopt a de-arched body position and turn. As the parachute started to deploy, it was observed that some of the main parachute rigging passed under Stephen's arm. The main parachute appeared to deploy unevenly. It was then observed to be in a distorted configuration.

The main parachute was seen to be rotating, slowly at first and was then observed to speed up. At approximately 1,500ft AGL the reserve pilot chute and bridle line was seen. Some witnesses believed that the pilot chute was entangled with the main parachute rigging lines and others believed that it was flying freely.

At approximately 300ft AGL Stephen was observed to detach from the main parachute and then fall away until he was lost from view, just prior to impact. No reserve canopy deployment was observed.

BOARD OF INQUIRY CONCLUSIONS

The Conclusions of the Board are that Stephen had received the required level of training during his initial course and that this was supplemented with revision training on the day of the actual descent.

At an altitude of approximately 3,700ft AGL the jumpmaster dispatched Stephen, who de-arched and turned shortly after exit. He also caught his arm in the deploying main parachute rigging lines.

As the main parachute deployed it did not develop correctly, resulting in a

'distortion' or 'line over' type malfunction. This may have been caused because Stephen's arm made contact with the rigging lines, or (a) rigging line(s) caught on part of the parachute container.

Stephen did not carry out his emergency procedures as had been taught.

At approximately 1,500ft AGL it is believed the AAD activated, resulting in the reserve pilot chute and bridle line deploying, but failing to extract the reserve deployment bag and parachute. This may have been because the reserve pilot chute was unable to obtain enough 'drag' to extract the 'bag'.

During this period of time the DZ Controller gave instructions over the 'ground to parachutist' radio for 'number one' to 'check the canopy' and then for 'number one' to 'go through the emergency procedures/cutaway'. The DZ Controller continued to give instructions to 'number one' for some time, (Stephen being number three), before he realised his mistake. He then probably gave instructions without stating a number at all. It is not known whether Stephen heard the instructions, or realised the instructions were directed to him.

Eventually, at approximately 300ft AGL Stephen carried out his emergency drills, but because of the low altitude and/or because the reserve parachute bridle line may have been restricted, the reserve parachute did not deploy before impact.

BOARD OF INQUIRY RECOMMENDATION

The Recommendation of the Board is that the subsequent Panel of Inquiry, which follows a Board of Inquiry and is set up to investigate any peripheral aspects to the fatality, also considers the following:

Is it possible for riggers/equipment manufacturers to design reserve parachute deployment equipment so that it can deploy more successfully without the main parachute having first been released?

It was proposed by Dave Wood and seconded by Alan Wilkinson that the Board Report including their Conclusions and Recommendations be accepted.

Carried Unanimously

The Committee was advised that because of the great concern following this fatality. It was decided that the Panel of Inquiry, which follows a Board of Inquiry, be set up as soon as possible. Therefore the Panel, which consists of Ian Rosenvinge (Chairman), Alan Wilkinson, Mike Rust and Paul Applegate, had their first meeting at Hibaldstow on the 28th November. The Panel had also held a further meeting prior to STC that evening.

Mr Rosenvinge was present at the meeting and was able to give details on the work of the Panel to date.

As well as the investigating the peripheral aspects of the fatality and considering the Recommendation of the Board, the Panel had been asked to also consider the following areas:

- a) Does there need to be a minimum drag force on reserve pilot chute? If yes, what should it be?
- b) Is the current ram-air canopy 'free bag' bridle suitable for Student

equipment?

- c) Can the 'free bag' be designed for easier extraction from the container? e.g. Triangular top, similar to 'Strong' Tandem bag.
- d) Would 'round/conical' reserves be more suitable for RAPS Students?

As some of the areas of consideration for the Panel were likely to overlap areas already being considered by the Panel of Inquiry chaired by David Hickling looking into RAPS parachuting in general. It would be necessary for some liaison to take place between the two Panels.

The Committee was advised that some tests, by Steve Swallow and Kieran Brady have already taken place regarding pilotchutes. Some pilotchutes are proving to be much more effective than others.

5. INCIDENT/INJURY REPORTS – RESUME

- i) There had been 12 Student injury reports received since the last meeting, 8 male and 4 female. 1 Student dislocated a knee during exit training. The other 10 were on landing. 10 of the injuries were on ram-air canopies and 1 was on a round canopy.
- ii) There had been 5 Injury reports to Intermediate or Experienced Parachutists received since the last STC. 3 male and 2 female. One involved an Experienced Parachutist who had a heart attack whilst walking to the aircraft. The swift action by a number of Club members carrying out resuscitation procedures saved his life.
- iii) Since the last meeting there had been 15 Student Parachutist Malfunctions/Deployment Problems reported. 14 male and 1 female, all were on ram-air canopies.
- iv) There had been 22 reports of Malfunction/Deployment Problems to Intermediate or Experienced Parachutists since the last meeting. 18 male and 4 female. Two concerned equipment from the same manufacturer where the bar tacking had been left off steering lines. One on the main and one on the reserve. This had not been spotted during the packing. The Chairman pointed out that jumpers should have new equipment carefully inspected before using it, as quality control by some manufacturers is not always as good as it should be.
- v) There had been 11 Tandem Incident/Injury reports received since the last meeting, one was a Student injury, one was an injury to an instructor. 8 were malfunction/Deployment problems, including two at the same club on the same day, where the instructors pulled the drogue release handles and the main parachutes did not deploy. It was felt by the club that the problem could have been because the rigs had been used all day (which was very wet) and it was possible that the 3 ring loops were saturated with water (because of previous skidding/sitting down landings) and this may have contributed to the problem, with the loops freezing at altitude.

The Riggers Committee had discussed the problem with the 3 ring loops

that evening. Kim Newton had carried out tests and had confirmed that given these circumstances the 3 rings as they get colder were less likely to release.

They had since spoken to the manufacturers who had confirmed this theory.

Kim Newton also stated that when conducting tests she introduced mud to the lines as opposed to them just being wet. When it was approaching freezing conditions this significantly increased the pull force needed to release the 3 rings.

Packers should be aware of this problem and check 3 ring assemblies before use particularly if the equipment was being used in wet, muddy and cold conditions.

The final Tandem incident was a very bad spot where the Tandem pair landed several miles from the Club.

- vi) There had been 3 reports of AAD firings. Two involved Students deploying their main canopies low and their CYPRES AADs firing. The third was an Experienced Parachutist who also lost altitude awareness and his CYPRES fired as he deployed his main.
- vii) A display misfire report had been received where a jumper lost a smoke canister. It landed on farmland without further problem.
- viii) Also received have been a number ' off landing ' reports.
- ix) One report had been received where a Student lost his helmet on exit. Another concerned an aircraft with an engine problem and the parachutists exited without problem.

6. BODY/EQUIPMENT ENTANGLEMENT DRILLS

A paper from the NCSO & the Technical Officer was circulated with the Agenda regarding the teaching of Body/Equipment Entanglement Drills.

Their paper had stated that there had been a number of incidents, including fatalities, over the past few years where Student Parachutists have caught arms or legs in the rigging lines or risers during deployment. On some occasions this has caused a malfunction. The Student has cutaway, but because the main canopy is still snagged on the Student' s body the reserve pilot chute or bridle line has become entangled with part of the main canopy. There has also been an occasion where a Student has deployed the reserve before cutting away, whilst still entangled with the main and the pilot chute or bridle line has entangled with part of the main canopy or lines. The Student had then cutaway and the reserve has not been able to deploy. On other occasions the Student' s body has become entangled with the main canopy and by the time the Student has become free of the entanglement and then cutaway, it has been too low for the reserve to fully deploy.

The paper also stated that the above instances were simplifications, but Students catching arms and legs in rigging lines had been of great concern of the NCSO and TO for some considerable time. They therefore wished STC to consider making the teaching of Body/Equipment Entanglement Drills mandatory as part of the initial RAPS training course.

The NCSO and TO had also suggested a specific drill, which was;

‘ If a Student becomes entangled with any part of the equipment. eg arm(s) or leg(s) in the main canopy rigging lines or risers, they must not cutaway but should try to un-entangle themselves, if they are unable to do so and the canopy is not in the correct configuration, they should deploy their reserve parachute (without cutting away) ’ .

The NCSO/TO understood the reasons instructors had in the past wanted to have one emergency drill for all problems, but this had in their opinion not worked in the best interest of Students who had encountered the above problems.

During the last 11 years there have been 8 Student RAPS fatalities, (the first was in 1991). Three ‘ first timers’ have been killed, two other static line Students (one on his 2nd jump and one on his 8th) and three ‘ free fall’ Students (one on his 1st free fall, one on his 2nd and one on his 5th).

Two of the fatalities cutaway their mains too low for reserve to fully deploy. Two cutaway whilst still caught in main lines, the reserves were unable to deploy properly. Three had reserves deploy whilst still under a main and pilot chute caught on rigging lines, they then cutaway main. One deployed main too low, AAD fired but did not deploy reserve in time.

The Committee discussed the above suggestions in two parts;

- a) That it is mandatory that Body/Equipment Drills are taught during the initial RAPS training course.

Following discussion on this matter, it was proposed by Ian Rosenvinge and seconded by Mike Rust that the above suggestion be accepted.

Carried Unanimously

- b) Much discussion took place regarding the suggested drill of the NCSO & TO.

It was felt by those present that there were a great many factors to consider before they could reach a decision on this matter.

It was however felt by those present that this matter was an on-going item, which warranted further debate.

David Hickling volunteered to make a summary of the various entanglement drills that had been sent to him, following his (Panels) request to CCIs for information on what drills are taught around the country. This information could be circulated to all CCIs to enable them to get an overall picture of what other people were teaching. It was therefore agreed that the subject of entanglement drills go on the next Agenda.

7. PROPOSED CHANGES TO THE BPA OPERATIONS MANUAL

Two papers, one from the Technical Officer and one from Brian Dyas for proposed changes to the Operations Manual were circulated with the Agenda.

- A) This first proposal is in two parts, both of which were requirements that used to be included in the Operations Manual, but were taken out unintentionally when BPA Working Groups or Panels made recommendations to STC. The first was that an introduction to the BPA Operations Manual was included as part of the requirements for IC1.

It is therefore recommended the BPA Operations Manual be amended as below:

SECTION 2 (DESIGNATION AND CLASSIFICATION OF PARACHUTISTS), Paragraph 6 (The Grading System), Sub-Para 6.1 (Individual Canopy), 6.1.2 (a), change to read:

6.1.2 The parachutist must also:

- a) Receive a full safety brief (given by an instructor) on, be familiar with and be able to carry out the duties and responsibilities of a Jumpmaster and has received an introduction to the BPA Operations Manual.

It was proposed by Dave Wood and seconded by David Hickling that the above change to the BPA Operations Manual be accepted.

Carried Unanimously

The second proposal was that the minimum jump numbers for display jumping was 100 jumps, this was left out when the Display Section was re-written.

The Committee was advised that in the paper that went out with the Agenda had stated FAI 'C' Certificate, but it should be under FAI 'B' Certificate.

It is therefore recommended the BPA Operation Manual be amended as below:

SECTION 13 (DISPLAY PARACHUTING), Paragraph 3 (Team Members), Sub-Para 3.3 (FAI 'B' Certificate 'Red' Holders), 3.3.1, change to read:

3.3.1. Must have a minimum of 100 descents and must have carried out a minimum of 5 consecutive, pre-declared, simulated, display landings, landing within 10 metres of the centre of the target. This must be recorded in the parachutist's log and signed by a team leader or CCI.

It was proposed by Dave Wood and seconded by David Hickling that the above proposed change to the BPA Operations Manual be accepted.

Carried Unanimously

- B) The proposal from Brian Dyas concerned the Classification of Parachutists (FAI Certificates) and the privileges that go with them. Brian's letter gave details. The intention was that once a parachutist is qualified to FAI 'A' Certificate (Red) standard, he/she will have a one month 'grace' period in which to 'physically' obtain that Certificate. Therefore permitting that parachutist to be classified as an Intermediate Parachutist as soon as he/she is up to 'A' Certificate standard.

It was pointed out that there had been some instances that once jumpers had qualified for their Licence, they were not sending in their application forms to the BPA for processing for a long period of time. It was suggested that perhaps something could be included in the BPA magazine to encourage jumpers to apply for their FAI Licences as soon as they had qualified.

After some discussion it was proposed by Alan Wilkinson and seconded by Ian Rosenvinge that the proposed change to the BPA Operations Manual (below) be accepted.

For: 9 Against: 3 Abstentions: 0

Carried

SECTION 2 (DESIGNATION AND CLASSIFICATION OF PARACHUTISTS), Paragraph 3 (FAI – British Standard – Certificate – Red). After Sub-para 3.4. add new N.B. (3), to read:

N.B.(3) Parachutists are required to hold the appropriate FAI Certificate in order to have the privileges associated with that Certificate. A one-month 'grace' period will be allowed between qualifying for a Certificate and the receipt of the Certificate from the BPA.

Dave Wood advised the meeting that he would be making a proposal to be included on the next Agenda concerning military descents in respect of jump numbers for FAI qualification.

8. INSTRUCTOR COURSE 4-2001

The BPA wished to thank Target Skysports for hosting the Instructor Course, which ran from the 12th – 22nd November 2001. The report was circulated with the Agenda.

John Hitchen advised the Committee, that it was generally felt by the Examiners on the Course that candidates who only just fulfil the requirements to attend are at a disadvantage and perform poorly.

The recommendation from the Course was as follows:-

'That John Hillam be given a six month extension to his Category System Basic Instructor rating'

It was proposed by Dave Wood and seconded by Ian Rosenvinge that the above recommendation be accepted.

Carried Unanimously

9. PERMISSIONS

a) A letter from Ian Rosenvinge was circulated with the Agenda proposing a six month extension to the CSBI rating of Phil Clarke.

It was proposed by Ian Rosenvinge and seconded by Dave Wood that the above permission be accepted.

Carried Unanimously

- b) Circulated to those present was a letter from Ian Cashman proposing the re-instatement of Fin Molloy' s AFF and Tandem Instructor ratings, which expired on the 31st March 2000. This was subject to the usual CCI and Examiner signatures and Operations Manual requirements.

The Committee was advised that Mr Molloy was a life member of the BPA and now lives in the USA, but regularly visits the UK and would like to use his expired ratings. He was very current with these ratings under the USPA.

It was proposed by Ian Cashman (proxy) and seconded by David Hickling that the above permission be accepted.

Carried Unanimously

- c) Circulated to those present was a letter from Pete Sizer proposing the re-instatement of Colin May' s CSI rating, which expired on the 31st March 2001. This was subject to the usual CCI and Examiner signatures and Operations Manual requirements. A letter from Colin May was also circulated to those present.

The Committee was advised that Mr May had not jumped for 15 months due to long standing ankle and back injuries and he had not expected to be able to return to jumping, so had not renewed his ratings this year. The treatment for his injuries had progressed far better than expected and he anticipated being able to jump again before Christmas. Mr May was still within the BPA rules for the number of jumps required within 2 years.

It was proposed by Pete Sizer and seconded by Mike Rust that the above permission be accepted.

Carried Unanimously

- d) Also circulated to those present was a letter from Alan Wilkinson proposing the re-instatement of Darren Brown' s Instructor rating, which expired on the 31st March 2001. This was subject to the usual CCI and Examiner signatures and Operations Manual requirements. A letter from Roy Bannerman was concerning this matter was also circulated to those present.

The Committee was advised that due to heavy display schedule he was unable to regularly attend a club and he had therefore not renew his Instructor ratings this year, although he did continue to teach until his ratings had lapsed.

It was proposed by Alan Wilkinson and seconded by Pete Sizer that the above permission be accepted.

Carried Unanimously

10. **A.O.B.**

- a) Circulated to those present was a letter from Mike Bolton referring to a request he made at the STC Meeting of the 9th August against the ' round' reserve rule for display jumping, so that he could do a number of ' back to back' jumps to main the requirement for his instructor rating renewal. Mike

forgot to ask for a 'Permission' against the 60 jump rule for display jumpers and had therefore requested an exemption to this rule to enable him to accrue the jumps for which he was short.

It was proposed by Phil Cavanagh and seconded by Dave Wood that the above request be accepted.

For: 7 Against: 2 Abstentions: 3

Carried

- b) The Chairman reminded CCI's that if they were considering nominating someone for the Mike Forge Trophy (New Skydiver of the Year). The nominations need to be at the BPA offices before the end of the year.

The Chairman wished everyone a Merry Christmas and a Happy 2001 and expressed his thanks to all CCI's for their support during the year.

Date of next Meeting:- Thursday 7th February 2002
At 7 p.m.
County Arms, Leicester

7th December 2001

Distribution

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