

BRITISH PARACHUTE ASSOCIATION
SAFETY AND TRAINING COMMITTEE MEETING
BPA OFFICES, 5 WHARF WAY, GLEN PARVA, LEICESTER
THURSDAY 25 SEPTEMBER 2008

Present:

John Page	-	Vice Chairman STC/Skydive London
Kieran Brady	-	Skydive Strathallan
David Hickling	-	BPS, Langar
Steve Thomas	-	Cyprus
Philip Cavanagh	-	Black Knights
Mike Rust	-	NLPC
Steve Scott	-	Skydive Weston
Ray Armstrong	-	Skydive Brid
Ian Rosenvinge	-	Peterlee
Mark Tether	-	JSPC(L)/RAPA
Jason Thompson	-	UK Parachuting
Stuart Meacock	-	Skydive Airkix
Colin Fitzmaurice	-	Tilstock
Paul Hollow	-	Target Skysports
Nigel Allen	-	JSPC(N)/APA
Pete Sizer	-	Headcorn
Tony Goodman	-	Silver Stars
Paul Applegate	-	Riggers

Apologies: John Hitchen, Dane Kenny, Dave Wood, Doug Peacock, Jason Farrant, Pat Walters (Colin Fitzmaurice represented Pat at the meeting).

In Attendance:

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

Observers: Gary Small, Gordon Blamire, Hans Donner, Phill Elston, Rick Boardman
Alex Wilson, Paul Moore, Steven Fyfe, Trevor Dickson.

ITEM

In the absence of John Hitchen (Chairman STC), the meeting that evening was chaired by John Page (Vice Chairman STC).

1. MINUTES OF THE STC MEETING OF THE 31 JULY 2008

It was proposed by Tony Goodman and seconded by Paul Hollow that the Minutes of the STC Meeting of the 31 July 2008 be accepted as a true record.

Carried Unanimously

2. MATTERS ARISING FROM THE STC MEETING OF THE 31 JULY 2008

Page 4, Item 5 – (Tandem Working Group). The Vice-Chairman reported that the Tandem Equipment Books/Folders had now been produced and many Clubs had been using them for several weeks. He stated that Clubs/Tandem Instructors who had yet to obtain them should do so without delay as their use was mandatory from the 1 October 2008.

Mike Rust reported that a number of anomalies had been found in the books. He said that anyone with any queries could contact him at Chatteris.

The TO pointed out that on the 100 descent inspection it did not state in the books that this had to be carried out by an Advanced Packer (Tandem), or by a Rigger. However, this was reiterated in the BPA Operations Manual. He stated that some Tandem Instructors were under the impression that they could carry out the 100 descent inspection themselves and this was not the case, unless they held the appropriate qualification.

Page 5, Item 6 – (Proposed Changes to BPA Operations Manual – Runway Markings).

The Committee was advised that the item regarding runway markings had been re-submitted to STC as a main agenda item.

Page 6, Item 7 – (Panels of Inquiry). The Vice Chairman reported that the two Panels, which had been discussed at the last meeting concerning Display Incidents and the Hang-Up at RAPA, would be covered as main agenda items that evening.

The Vice Chairman reported that at the last Council meeting on the 19 August a discussion took place regarding the naming of individuals who have had disciplinary action taken against them. It was noted that individuals who have been disciplined are not named in STC minutes. It was felt by some on Council that it was part of the normal public reporting of regulatory organisations that person are named to ensure that justice was seen to be done. Therefore, Council has asked for STC's input on this matter.

Following some discussion on this matter, the Committee were generally content with the situation as it stood. However, they agreed that system needed to be consistent and if individuals were to be named in the Minutes, it should only be when the final outcome of disciplinary matter was known.

3. MINUTES AND MATTERS ARISING FROM THE RIGGERS' SUB-COMMITTEE MEETING OF THE 31 JULY 2008

There being no matters arising from the previous Minutes, it was proposed by Paul Applegate and seconded by Steve Thomas that the Minutes of the Riggers Sub-Committee Meeting of the 31 July 2008 be accepted.

Carried Unanimously

Paul Applegate stated that he had nothing to report from the meeting held that afternoon.

4. FATALITY – BPS, LANGAR

The Vice Chairman reported that unfortunately there had been a fatal parachuting accident at British Parachute Schools, Langar on the 13 September. The jumper was Sam Bailey who was an experienced parachutist. The Association offered its deepest sympathy to Sam's family, especially his wife Sarah who is also a parachutist and BPA instructor.

The Board of Inquiry that investigated the accident consisted of the NCSO and the Technical Officer. The Board 'Resume' had been sent to CCIs the previous day and was also tabled to those present. The TO was also able to answer any questions relating to the report.

At approximately 13.50 hrs on Saturday the 13 September 2008, Sam Bailey, an experienced FAI 'D' Certificate parachutist, with in excess of 1,000 descents, who was also an experienced freefall cameraman and a 'CP1' holder, boarded a Cessna 208B 'Caravan' aircraft, at British Parachute Schools, Langar, along with eleven other parachutists: One solo parachutist, four Tandem Instructors with their Student parachutists and two other cameramen, who were videoing three of the Tandem pairs.

The aircraft climbed to approximately 13,000ft AGL. A 'jump run' was made over the PLA. Once the aircraft was at the 'exit point', the parachutists on board exited, one individual parachutist followed by four Tandem groups. Sam exited with the third Tandem group.

Sam was carrying out a 'camera jump', videoing one of the Tandem pairs. All parachutists' canopies were seen to deploy at the correct altitude (between 2-5000ft AGL), and all were observed to be flying correctly.

Towards the lower portion of the descent, Sam's canopy was observed to be flying downwind in a northwesterly direction near the landing area designated for experienced parachutists. He was then observed to make a low, radical left turn, close to the aircraft hangar, in order to face into wind for landing. Sam completed a turn in excess of a 180-degrees. He then impacted with the ground, approximately 15 metres from the edge of the experienced landing area, and approximately 11 metres from the rear of the aircraft hangar, as the canopy was starting to recover from the turn.

The Conclusions of the BPA Board are:

That Sam made an uneventful free fall descent. He deployed his main parachute at a correct altitude. It appeared that Sam intended to land near the edge of the experienced parachutists' landing area, in order to make a fast extended (swoop) type landing. A type of landing that he had made successfully in the past and on both his previous jumps the same day.

At a very low altitude he initiated a radical turn in order to carry out the 'swoop' landing. It is not known why he misjudged the manoeuvre on this occasion, though he may have extended the turn to avoid the hangar. He then struck the ground at high speed before fully recovering from the turn.

The Board are aware that low radical turns are the most common form of serious or fatal injury to experienced parachutists world-wide and that the British Parachute Association has carried out extensive education and training programmes in order to reduce the risk. Therefore, the Board believe that it can do no more than again to remind parachutists of the potential dangers of carrying out this type of canopy manoeuvre.

It was proposed by Ray Armstrong and seconded by Mike Rust that the Board of Inquiry Report and its Conclusions be accepted.

Carried Unanimously

The Vice Chairman reported that the Board had also recommended to STC that in this instance it was not necessary for a Panel of Inquiry to be formed.

It was proposed by Kieran Brady and seconded by Pete Sizer that this recommendation be accepted.

For: 14

Against: 0

Abstentions: 1

Carried

The TO once again pointed out the potential dangers of carrying out this type of canopy manoeuvre.

The Committee felt that it be a good idea for the BPA office to once again circulate some of the low turn - 'Stay Safe' posters to all Clubs and Centres as a reminder to parachutists. The TO agreed to this request.

5. INCIDENT/INJURY REPORTS - RESUME

The Vice Chairman commented that again, it had been quite an eventful two months since the last STC meeting for injuries and incidents.

i) There had been 18 Student injury reports received since the last meeting. 16 male and 2

female. One was to a Student who hurt her arm muscle after or as she deployed her canopy. Another involved a Student making his first descent, who became entangled with his main canopy after making a poor exit. He cutaway his main canopy which had been spinning rapidly. However, the main did not fully release, as he was still entangled. He then deployed his reserve, which did not fully inflate, as the main, which was still partially attached to the Student's body, restricted it. He landed very heavily. The Student was in a serious condition, though it is believed that not many bones were broken. He had been kept in an induced coma by the hospital until very recently, because of a chest infection. The CCI concerned was able to give further details of this incident and was also able to give an update on his condition and stated that the parachutist concerned was now well and on the road to recovery. The remaining Student injuries were on landing.

The Technical Officer expressed his concern at the increasing number of incidents of this type and whether enough time was being spent on 'exits' during training. He requested that CCIs consider spending more time on the teaching of exits to RAPS Students.

Paul Hollow commented that he thought that it would of great benefit to CSBI candidates if they could be shown the actual footage of this particular incident if it was available, as he felt that it highlighted the potential dangers of a first time S/L parachutists jump.

- ii) There had been 10 injury reports received for 'A' Certificate or above parachutists. 5 male and 5 female. One injury was to a parachutist who hurt her ankle jumping from an aircraft mock-up. One of the injuries involved a 'B' Certificate parachutist with 154 jumps, whose canopy partially collapsed as he was making an approach to the 'pit'. The jumper concerned stated that he was told by a number of witnesses that a jump-aircraft flew very close to him, possibly underneath, which may have caused the collapse. However, the jumper did not see an aircraft himself and the club could offer no explanation. Another report involved an experienced parachutist with over 2,000 descents, who was filming a 'tube and smoke' display at a BPA Club. A 'head down' jumper hit her in freefall. She deployed her canopy, felt dizzy as she was descending and fainted just as she landed.
- iii) Since the last meeting there had been 10 Student Parachutist Malfunction/Deployment Problems reported. 8 males and 2 female. Several of the reports, like the badly injured Student already mentioned, were of Students becoming entangled with equipment. Any of these types of malfunctions could have serious consequences.

One of the reports involved a 'first-jump' AFF Student, who had not performed well in freefall and the primary instructor had to deploy her canopy for her. She had a 'good canopy', however, she thought she was still in freefall and cutaway and deployed her reserve. She did not realise she was under a good canopy. Another report involved a Student making his second descent who had a 'line over' type malfunction. He took no action and landed the malfunction, luckily only sustaining minor injury.

- iv) There had been 24 reports of Malfunction/Deployment Problems to 'A' Certificate parachutists and above since the last meeting. 15 male and 9 female. One report involved a parachutist with 450 jumps, though she had not jumped for over six years. She was given an extensive re-brief by an experienced instructor, who told her to make a solo jump. However, she went up with another parachutist with the intention of carrying out a 2-way 'sit-fly' jump. During the jump her leg-strap became loose and she started to spin on her back. It is believe that she eventually stopped the spin and ended up deploying her main canopy below 1,000ft.

- v) There had been 6 Tandem Injury reports received since the last meeting. 3 male and 3 female. There have also been 11 Tandem Malfunction/Deployment Problems reports received.
- vi) There had been 4 reports received of AAD firings since the last meeting. One involved an AFF 'Level 5' Student who had a 'bag-lock' malfunction but failed to take any action and the Cypres fired. Another involved a Student with 26 descents who had an involuntary turn in freefall, spent some time trying to correct the turns, possibly deployed low, experienced a stiff pull and deployed her reserve, as the FXC fired. The final 2 concerned 2 freefly jumpers who continued to freefly together until approximately 1,400ft, broke off and deployed their mains, as their Cyresses fired. Both have been 'grounded' by their CCI for a month.
- vii) There had been 6 display misfire reports received since the last meeting, mostly 'off landings'. One famous one involved jumper who landed on the stadium roof of Burnley Football Club. The jumper sustained only cuts and bruises.
- viii) One report had been received of a canopy collision between two experienced parachutists. It occurred just after opening. One jumper had line burns to her neck and cut her hand. The other jumper was uninjured.
- ix) Eleven reports had been received of 'off landings' at Clubs.
- x) One report had been received of a parachutist losing his camera lens on opening.
- xi) A report had been received of a 'tail-strike' to a Cessna Caravan. The initial report indicated that the aircraft was being flown correctly for a parachutist to exit. This was cause for great concern. On investigation it was discovered that the pilot carried out a 'climbing pass' and believed that on the pass, which was at about 4,000ft, only one solo jumper was to exit. However, once the solo jumper exited, the pilot started to climb and added power, but failed to put the 'green' light out. Another jumper then exited and struck the tail, knocking himself out. The tail-strike caused the jumper's reserve parachute to deploy. He did not gain consciousness until after he landed. He only sustained bruising. The parachute centre has put new procedures in place to try to ensure that a similar incident does not occur in the future.

The TO stated that the term 'climbing pass' is a term that has been used for many years and if it actually takes place, especially with the turbine aircraft now in common use, it could cause similar problems. Jumpers should understand that if using a signaling system such a green and red lights, then the green light 'on' must only indicate that the aircraft is in the correct configuration for parachutists to exit. If the aircraft is not in the correct configuration parachutists must not exit and the green light must not be left 'on'.

- xii) A report had been received of a 'tail strike' to an A495 Kodiak Quest aircraft. A cameraman had positioned himself at the rear of the rear camera step. The group he was filming left the aircraft and as he followed them he jumped up and out coming into contact with the horizontal tail. The aircraft was being flown in the correct manner for parachuting. The TO stated that his incident is cause for great concern.

Paul Moore gave the meeting further details of the incident and stated that the aircraft had been grounded at this time until it had been inspected. He stated that no 'floating' type exits would be made from the aircraft until such time as the problem had been resolved, possibly by shortening the aircraft step and handle to prevent a parachutist coming into contact with the tail.

6. **PROPOSED CHANGES TO THE BPA OPERATIONS MANUAL – RUNWAY MARKINGS**

The Vice Chairman advised the Committee that this item had been re-submitted from the last meeting, as it was agreed that a clarification as to what markings would be acceptable would be obtained. Kieran Brady, Chairman of the Pilots' Committee, had now obtained more information and was able to provide more details to those present. An e-mail from Kieran written to the CAA had also been circulated to those present. Also circulated to those present was a letter from Lyn George, Club Chief Pilot of Tilstock.

The Vice Chairman stated that this proposal followed the DHC-2 Turbo Beaver crash at Headcorn on the 11 March 2006, the AAIB made the following recommendation to the CAA, which the CAA had accepted and had amended CAP 660:

Safety Recommendation 2007–099

It is recommended that the Civil Aviation Authority should review the requirement to provide runway edge and obstacle markings for unlicensed runways from which aerial work operations are conducted.

It was therefore proposed that:

SECTION 7 (PARACHUTE LANDING AREAS/DROPPING ZONES), New Paragraph 9 (Runway and Obstacle Markings) be added, to read:

9. RUNWAY AND OBSTACLE MARKING

- 9.1.** Any obstacle that, because of its height or position, could be a hazard to an aircraft landing or taking off, and which cannot be removed, should be conspicuous and marked if necessary.
- 9.2.** For grass aerodromes the boundaries of unlicensed unpaved runways used for parachuting operations should be delineated by runway edge and end markers.
- N.B. Guidance on markings on unpaved runways is available in CAP 428 – Safety Standards at Unlicensed Aerodromes (including Helicopter Landing Sites), chapter 4, paragraph 3.11. & 3.12.*

The CAP paragraphs read:

CAP 428 – Safety Standards at Unlicensed Aerodromes (including Helicopter Landing Sites), chapter 4, paragraph 3.11./3.12

3.11. The usable parts of hard runways (if all of the hard area cannot be used) and of grass runways may be edged with white rectangular paint markings or marker boards, flush with the runway surface, each 3 metres long and 1 metre wide, at intervals of not more than 90 metres. Alternatively, suitable elevated frangible markers, such as traffic cones at the same spacing may be used. The ends of the usable runway may be indicated with similar paint or markers at right angles to, and adjoining the end lateral markers.

3.12 Where operations are not confined to marked, paved or unpaved runways, the limits of the usable area may be marked in a similar way, i.e. 3 metre by 1 metre markers spaced at intervals of not more than 90 metres around the perimeter. If any area within this perimeter is temporarily or permanently unfit for use by aircraft, it should be outlined by similar-sized orange and white raised markers or traffic cones.

This proposal generated discussion. Some members present were unhappy with what they felt was yet another unnecessary regulation being forced upon them.

Following further discussion, it was proposed by Kieran Brady and seconded by Phil Cavanagh that the above BPA Operations Manual amendment be accepted.

For: 9 Against: 3 Abstentions: 3

Carried

7. BPA PANELS OF INQUIRY

a. Hang-Up Incident at JSPC-Bad Lippspringe

The Vice Chairman advised those present that this incident had been reported at the last meeting. He stated that the Panel had completed their report on the 3 September a copy of which had been circulated to CCIs with the agenda.

The Panel had made a recommendation for a change to the Operations Manual. Section 10 (Safety), Paragraph 3 (Emergency Procedures – Aircraft), sub-para 3.5. change to read:

‘A suitable knife must be located inside the aircraft as part of aircraft equipment in case of a hang-up or other emergency. Jumpmasters, instructors and pilots must be aware of its location and the procedures to be taken in the event of a hang-up.’

Following some discussion, it was proposed by Mike Rust and seconded by Tony Goodman that the above amendment to the BPA Operations Manual be accepted.

Carried Unanimously

The Vice Chairman reported that the Panel also decided on the following disciplinary action with regard to the instructor concerned:

- a. That his CSI rating is suspended for two months from the date of the incident.
- b. That he receives a letter reminding him of his responsibilities as a Category System Instructor.
- c. That he does not carry out dispatching until he has received a safety brief on dispatching techniques from an independent BPA Instructor Examiner.
- d. That he is only permitted to dispatch Student Parachutists under direct supervision until he demonstrates to a BPA Instructor Examiner his competence to dispatch safely.
- e. That for a period of three months on any lift where he is dispatching Student Parachutists he does not carry out any other skydiving activities (such as FS, competition jumping etc) until he demonstrates his competence to his CCI.

The Committee was advised that the instructor concerned had accepted the decisions of the Panel and unless STC had any further comment or recommendations, the matter was considered closed.

STC made no further comment on this matter.

b. Display Incidents

The Vice Chairman reported that the Panel investigating the displays of one particular display team had almost finished their investigation and their report would be presented at the next STC meeting.

8. NUMBERS OF AFF STUDENTS PERMITTED FOR TRAINING

A proposal from Steve Scott had been circulated with the agenda. Steve had proposed that the instructor to student ratio for AFF be increased from the current 1-3 to 1-5. Steve had stated in his letter his reasons for his proposal.

Steve was present at the meeting and was able to provide give further details of his proposal to those present.

This proposal generated some discussion. A number of CCIs present did not agree with Steve's reasons behind the proposal and they felt it did nothing to enhance the safety of the sport.

Following further discussion, it was proposed by Steve Scott and seconded by Jason Thompson that the BPA Operations Manual be amended to increase the instructor to student ratio for AFF to 1-5.

For: 5 Against: 9 Abstentions: 1

Not Carried

9. INSTRUCTOR COURSES

There had been two Instructor Course held since the last meeting.

a. Instructor Course 3/2008 – Target Skysports

The Association wished to thank Target Skysports, Hibaldstow for hosting the Instructor Course, from the 11 – 20 August. There were two recommendations that required voting on:

- i) That Kenny Craig is given six-month extension to his Category System Basic Instructor rating.

It was proposed by Paul Hollow and seconded by Ray Armstrong that the above recommendation be accepted.

Carried Unanimously

- ii) The Examiners on the Course also recommend to STC that because his Instructor Examiner rating had only lapsed within the past year that Brian Dyas be upgraded to Instructor Examiner without having to attend a further course.

It was proposed by Ian Rosenvinge and seconded by Nigel Allen that the above recommendation be accepted.

For: 5 Against: 6 Abstentions: 4

Not Carried

b. AFF/Tandem Instructor Course – UK Parachuting

The Association also wished to thank UK Parachuting, Old Buckenham for hosting the AFF/Tandem Instructor Course, from the 8 – 11 September. There was one recommendation that required voting on:

One candidate, Kenny Craig, successfully completed the Tandem Instructor Course, however he was being posted to Afghanistan for approximately six months. Therefore, the Examiners recommended that when he returned to the UK he is re-evaluated by an independent Examiner before he carries out Tandem jumps with Student Parachutists.

It was proposed by Ray Armstrong and seconded by Kieran Brady that the above recommendation be accepted.

Carried Unanimously

The Vice Chairman of STC advised the Committee that the Association had started to organise another AFF/Tandem course for October, as there were a large number of candidates on the waiting list. He stated that when the candidates were contacted the majority stated that they were not prepared for the course. It then had to be cancelled. It was requested that CCIs do not put candidates forward for courses if they are not ready.

10. PERMISSIONS

- a. A letter from Nigel Allen had been circulated with the agenda requesting that David Pratt's CSBI rating be re-instated, as it had expired in August 2008. Also that he be given a six-month extension to his CSBI rating.

Nigel's letter had stated that due to work commitments David had been unable to commit to a CSI course.

It was proposed by Nigel Allen and seconded by Steve Thomas that the above permission be accepted.

Carried Unanimously

- b. A letter from Ray Armstrong had been circulated with the agenda requesting permission for TBI Trevor Dickson to be allowed to carry out a reduced amount of jumps at the discretion of the course examiners on his TI course.

Ray's letter had explained that Trevor had an exceptional amount of tandem experience and Ray felt that he would not need to carry out the complete course. Also included with Ray's letter was a letter from Trevor detailing his experience, which included in excess of 2,000 Tandem descents in New Zealand. Trevor was present at the meeting that evening.

It was proposed by Ray Armstrong and seconded by Mike Rust that the above permission be accepted.

Carried Unanimously

- c. A letter from Mark Tether had also been circulated with the agenda together with a risk assessment, requesting permission to allow JSPC(L)/RAPA to take passengers in the right hand seat of their Kodiak aircraft should the need arise. Mark had stated that in the BN2T Islander this was possible under the terms of the Operations Manual as it was a twin engine aircraft, however, now that the Centre also had a single engine turbine aircraft – the Kodiak Quest (N495KQ), it was not allowed from this aircraft as it was a single engine type. Therefore, the need for this request. All of the other Section 9 Para 5.7 aspects would be observed as normal.

The TO reported that these type requests would only be considered for individual aircraft (turbines aircraft only), with a risk assessment relating to the aircraft.

Following some discussion, it was proposed by Mark Tether and seconded by Ian Rosenving that the above proposal be accepted.

Carried Unanimously

- d. Circulated to those present was a similar request to RAPA's (above) from Jason Thompson, asking for permission to occasionally take passengers in the right-hand seat of their aircraft, which was a single engined Cessna 208 Caravan (G-UKPS). Also circulated to those present was a risk assessment relating to their aircraft.

Following some discussion, it was proposed by Jason Thompson and seconded by Steve Scott that the above proposal be accepted.

Carried Unanimously

10. A.O.B.

- a. A request from Nigel Allen had been circulated with the agenda for Old Sarum Airfield (OS Sheet 184, Grid ref: SU153 331) to be cleared as an approved DZ/PLA. Also circulated were details of the de-confliction procedures.

The Committee was advised that both the NCSO and the TO had visited the airfield and supported the proposal with the following provisos:

- i) Tandem parachutists and parachutists holding FAI 'B' Certificates and above are only permitted to jump.
- ii) The Club Chief Instructor or an Advanced Instructor must be present during parachuting operations.
- iii) Intended parachute opening positions
If the wind direction is between 06 and 24, run in will be into the wind, with the intended opening point South of the runway. All parachutists to remain South of runway.
If the wind direction is between 24 and 27, run in will be 24 with the intended opening point South of the runway. All parachutists to remain south of runway.
If the wind direction is between 03 and 06, run in will be 06 with the intended opening point south of the runway. All parachutists to remain south of runway.
If wind direction is between 03 and 27, run in will be cross wind, intended opening point to be no further than 0.5 miles north of the center of the runway. All parachutists to have crossed to south of runway no lower than 1500ft.
When intended opening point is north of runway, all parachutes to be open by a minimum of 3000ft

It was also noted that a power line exists approximately 750 metres from the centre of the PLA to the south-east, within the small housing estate. Aerial photographs of the proposed airfield were presented to the meeting.

Following some discussion, it was proposed by Nigel Allen and seconded by Mike Rust that Old Sarum Airfield be accepted as an approved DZ/PLA with the provisos set out above and subject to Nigel Allen Affiliating the new organisation to the BPA and also to Permission being obtained from the CAA.

Carried Unanimously

Dates of next Meeting: Thursday 20 November 2008
BPA Offices, Glen Parva, Leicester
at 7.00 p.m

26 September 2008

Distribution:

Chairman BPA
Council
CCIs
All Riggers
Advanced Packers
CAA
Lesley Gale (Editor – Skydive)
File

AMENDMENTS TO BPA OPERATIONS MANUAL

At the last STC meeting of the 25 September 2008 the following amendments were made to the BPA operations Manual:

SECTION 7 (PARACHUTE LANDING AREAS/DROPPING ZONES), New Paragraph 9 (RUNWAY AND OBSTACLE MARKING), to read:

9. RUNWAY AND OBSTACLE MARKING

- 9.1.** Any obstacle that, because of its height or position, could be a hazard to an aircraft landing or taking off, and which cannot be removed, should be conspicuous and marked if necessary.
- 9.2.** For grass aerodromes the boundaries of unlicensed unpaved runways used for parachuting operations should be delineated by runway edge and end markers.

N.B. Guidance on markings on unpaved runways is available in CAP 428 – Safety Standards at Unlicensed Aerodromes (including Helicopter Landing Sites), chapter 4, paragraphs 3.11. & 3.12.

SECTION 10 (SAFETY), Paragraph 3 (EMERGENCY PROCEDURES – AIRCRAFT), sub-para 3.5. Change to read:

- 3.5.** A suitable knife must be located inside the aircraft as part of aircraft equipment in case of a hang-up or other emergency. Jumpmasters, instructors and pilots must be aware of its location and the procedures to be taken in the event of a hang-up.