

SPORT PARACHUTIST



2 FROM GQ



'PATHFINDER'

Flight Data

Terminal velocity opening time—2.5 secs. approx. Normal rate of descent with 220 lbs.—15.5. ft/sec. Rate of turn—36Q° in 4 secs.

Canopy

Manufactured of nil porosity heat sealed 1.6 oz. nylon fabric, the canopy has 24 gores and 30 shaped apertures to provide drive, lift and turning.

The canopy is extremely stable and recovery after stall is immediate with minimum surge.

Harness

Nylon webbing with a breaking strain of 4,000 lbs. (1820 kg), with conventional American ejector snaphooks and 1½ shot Capewell canopy releases. The harness is instantly adjustable at main suspension and backstrap points. A full length backpad and comfort pads are provided.

Pack

Available in either three pin 'style' configuration or the more conventional four pin assembly. Both packs are designed for use with the Irvin Hitefinder and other automatic openers.

Sleeve & Auxilliary

The sleeve is of heavy duty 4½ oz./sq. yd. cotton fabric with conventional line storage and mouthlock.

The 36" diameter auxiliary is manufactured from low porosity nylon.

also 'PROTECTOR' 17ft (5.2m) Steerable Reserve

Flight Data

Terminal velocity opening time—1.5 secs. Normal rate of descent with 220 lbs.—17.5 ft./sec. Rate of turn—360° in 7-8secs.

Canopy

The canopy is manufactured from 1 oz. ripstop weave, heat sealed, nil porosity nylon. There are 20 gores, two of these have blank portions to provide drive and steerability. The blank gores are covered with nylon net for additional safety during deployment. Stable in flight, the canopy will provide adequate manoeuvrability coupled with a low descent rate.

Liftwebs

Manufactured from 4,000 lbs. (1820 kg) nylon webbing the liftwebs are connected by a strop for additional safety. American snaphooks with 5,000 lbs. rating are used. The Protector can be adjusted to any of four positions on the wearer.

Pack

Of synthetic materials and shaped to fit the body. The ripcord position can be either right hand side or top pull. The tie downs are integral with the pack.



Further details and prices available from:

**RFD-GQ LTD., Parachute Sales Division, Godalming,
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The views of contributors To "Sport Parachutist" are not necessarily those of the Editor, or of the British Parachute Association, and no liability is accepted for same.



Main and Reserve

Photo John Nicholls

COVER PHOTOGRAPH

The new world record, twenty-four man star (including two girls) filmed by Carl Boenish at Perris Valley Airport, California on the 16th January, from two Twin Beeches and a Cessna 206, exit height 14,500 ft. The twenty-four man star was formed out of twenty-four jumpers. Everyone got in!

The cover of the last issue won Dave Waterman the National Press Picture award of 1971, in the colour sports award section. Colour prints are available from the B.P.A. office at 10p each. Profits to go to the team and the B.P.A. The team consisted of Mike O'Brien, Mike Deakin, Dave Fiddler, Guy Sutton, Geoff Lancaster, John Beard, Ron Leader, Terry Forden, Tony Dale and Tony Unwin.

Revised Instructors/Clubs Lists

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Name	Club	BPA No
Acraman, R. S.	R.A.P.A.	444
Anderson, B.	A.P.A.	4590
Boot, W. G.	T/Valley	3930
Catt, W.	A.A.C.	415
Card, R. G.	A.P.A.	1927
Charlton, A. F.	R.A.F.S.P.A.	110
Crocker, J. T.	South Staffs	2066
English, J. A.	Northern Para	3767
Gardner, E. A. J.	Parachute Regiment	178
Griffiths, R.	Green Jackets	115
Hounsome, N. C.	T/Valley	1598
Hughes, D.	A.P.A.	116
Jackson, M. L.	R.E.	343
Jacobs, K. E.	R.A.F.S.P.A.	471
Jerstlce, B.	Lancs.	2101
Jickells, T. J.	S.A.S.	198
Laing, J.	R.A.P.A.	1323
McLoughlin, J. E.	R.A.F.S.P.A.	175
Mapplebeck, K.	R.A.F.S.P.A.	1035
Middleton, J.	S. P. Centre	7618
Martin, M. A.	A.P.A.	1444
McQueen, A. S.	A.P.A.	4318
Meacock, W. J.	Peterborough	578
Peacock, D.	R.A.F.S.P.A.	125
Raine, G. P.	A.P.A.	2229
Reed, M.	Yorks.	596
Reeves, M. R.		126
Rumney, C.	S. P. Centre	9492
Runacres, R. J.	R.A.P.A.	338
Shea-Simonds, G. C. P.	S. P. Centre	475
Sherman, P. W.	Old Warden	4757
Slatery, W. P.	Nomad	258
Stephenson, E. W.	S.A.S.	7699
Turner, P. W.	R.E.	220

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Cameron, K.	A.P.A.	7372
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Cole, A. J. N.	B.P.C.	346
Cooper, A. E.	Manchester	3026
Crawley, T.	Green Jackets	343
Dale, A. J.	R.A.F.S.P.A.	845
Daubney, J. E.	S.A.S.	2290
David, B. A.	Peterborough	822
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Day, T. J. W.	Met. Police	1705
Desoldato, D.	S. P. Centre	3764
Dinneen, K. J.	R.A.F.S.P.A.	3507
Dickson, T. G.	Scottish	472
Dixon, A. C.	R.E.M.E.	6174
Elliott, W. E.	C.C.S.P.C.	4064
Ellis, G.	A.P.A.	3432
Fernle, W. G.	Scottish	1859
Forsdyke, J. K.	South Staffs	3027
Forster, J. K.	Met. Police	5783
Francis, R.	S. P. Centre	3437
Fuller, I.	T/Valley	5532
Hackett, D.	R.M.	878

Hagan, T.	Nomad	1930
Harper, I.	R.A.F.S.P.A.	5543
Harrison, J.	Old Warden	2734
Henry, T.	S.A.S.	3110
Herbert, C.	Singapore	1866
Hewitt, B. N.	Northern Para	6023
Hill, A. V.	B.P.C.	193
Holt, A. C.	Northern Para	2224
Hogg, J. E.	B.P.C.	187
Hull, R. J.	R.A.P.A.	8878
Jarrett, R. G.	Parachute Regiment	8370
Johnson, A. T.	R.A.F.S.P.A.	898
Johnson, J. V. W.	Old Warden	119
Jones, A.	Parachute Regiment	1886
Jones, D. J.	R.A.F.S.P.A.	6979
Kemley, J. M.	A.P.A.	1952
Kirkham, R. N.	R.A.F.S.P.A.	6498
Lewington, E.	Parachute Regiment	5382
Lindsay, D.	N. Ireland	2317
Lonsdale, R. C.	R.E.M.E.	1151
Loutitt, I. A.	Hereford	4001
Maddy, W.	R.E.M.E.	1430
May, C.	South Staffs	2643
Meiville, L. W.	7 R.H.A.	1016
Miller, I. G.	Yorks.	772
McCarthy, D.	R.A.P.A.	949
McGill, J. A.	7 R.H.A.	2066
Maclennan, W. M.	Golden Lions	4060
McNaughton, D.	Parachute Regiment	417
Mitchell, G. E.	I.O.W.	407
Morrison, A.	A.P.A.	4848
Noble, K.	Northern Para	4298
Noble-Nesbitt, R.	Northern Para	6461
O'Brien, M. J.	B.P.C.	332
O'Brien, R. L.	S. P. Centre	3550
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Oxley, T. E.	R.A.P.A.	1442
Parker, A. H.	A.P.A.	3138
Parkinson, H. E.	R.A.F.S.P.A.	3276
Parry, R.	Lancs	2735
Payne, D. C.	Golden Lions	2370
Peel, F.	S. P. Centre	7096
Price, A. J.	R. M.	5489
Prin, O.	Peterborough	6559
Prince, D.	Lancs	1880
Pusey, D. C.	Parachute Regiment	2598
Railton, K.	R.A.P.A.	5932
Reddick, J.	A.P.A.	349
Rees, B.	7 R.H.A.	874
Reiter, R.	S. P. Centre	4931
Robinson, J.	R.A.F.S.P.A.	938
Robinson, R. J.	Parachute Regiment	4059
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Sansom, D. B.	Parachute Regiment	3232
Savage, D.	Nomad	1671
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Schofield, B. S.	Parachute Regiment	2332
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Thinking Reserves

Observations on some damaged reserve canopies

By IAN B. WRIGHT

Chief Inspector, Parachute Division
IRVIN Great Britain

INTRODUCTION

During the past year the writer had an opportunity to carry out a detailed examination of three damaged "reserve" Canopies. The examination yielded the data which is reported here because of their potential importance to sport parachutists.

The damage sustained was very similar on all three canopies and it is thought that this arose from the way in which they were deployed. It should be noted that while the canopies were all to the basic I.24 design, they had been made by different manufacturers in the U.K. and U.S.A. and were of appreciably different ages.

DAMAGED CANOPIES

The circumstances under which the three specific canopies were damaged were closely similar. In all cases the users had experienced total malfunctions (i.e. their main packs had all failed to open) and were in unstable free fall at terminal velocity when these reserve canopies were deployed. None of these parachutes was fitted with auxiliary, extractor parachutes.

A detailed analysis of damage was made on each canopy which was recorded on charts, figs. 2, 3 and 4.

Case 1. The canopy had been made in the U.K. in December 1953 and the damage on it consisted primarily of torn fabric and areas of severe searing. The tearing of the fabric, in particular along the length of the main seams of gores 7, 8 and 9 was not associated with searing damage but two principal areas, in the region of gores 2 and 3 and 13, 14 and 15, showed extensive searing and splitting. Damage had occurred to the V-tape attachments of number 12 and 13 rigging lines, illustrated in figure 5 and the type of tearing damage sustained by the panels was very similar to that found in Case 2 illustrated in fig 1.

Tensile tests on two areas of fabric, one adjacent to a major tear, showed ultimate tensile strengths of 52/54 lbs/inch and 51/47 lbs/inch and the mean canopy porosity was measured at 11.27 cu.ft./sq. ft./sec. Normal present day material specifications of this type call for tensile strengths in the order of 48lbs/inch warp and weft and porosity figures in the order of 11.5 cu.ft./sq.ft./sec.

Case 2. The canopy in this case had been made in the U.K. in 1943 and had been subjected to major repair and reconditioning in 1955. It had been made by a different manufacturer to that in Case 1.

The damage pattern was very similar to that in Case 1 but more severe. An extensive area of canopy was severely torn in the region between gores 11 and 15 associated with patches of searing damage and splits. A relatively small area of searing was present on gores 17 and 19 and again on gores 23 and 24.

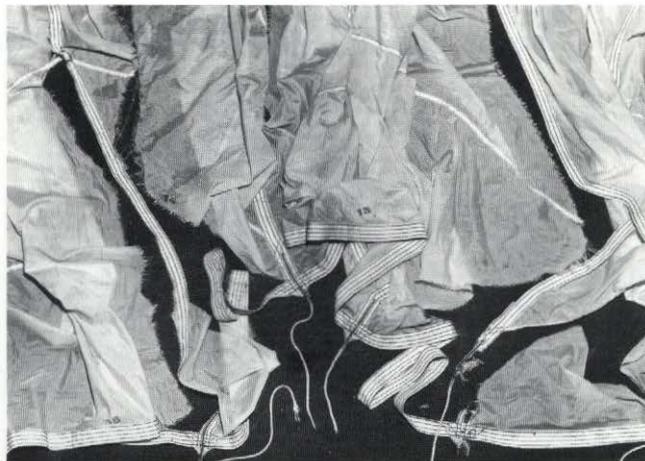


Fig. 1

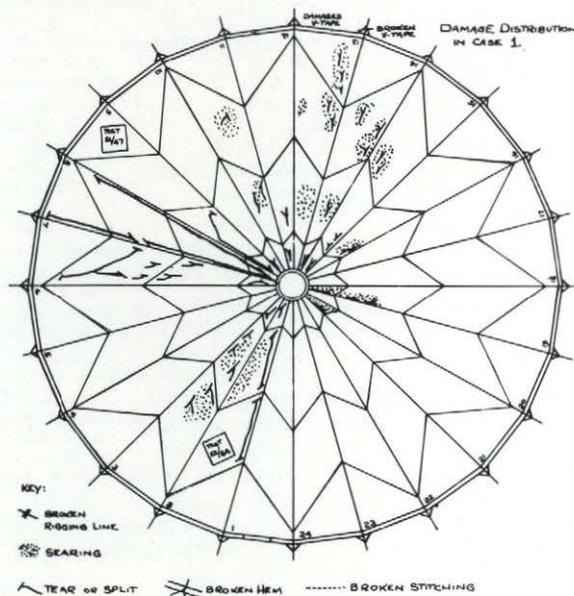


Fig. 2

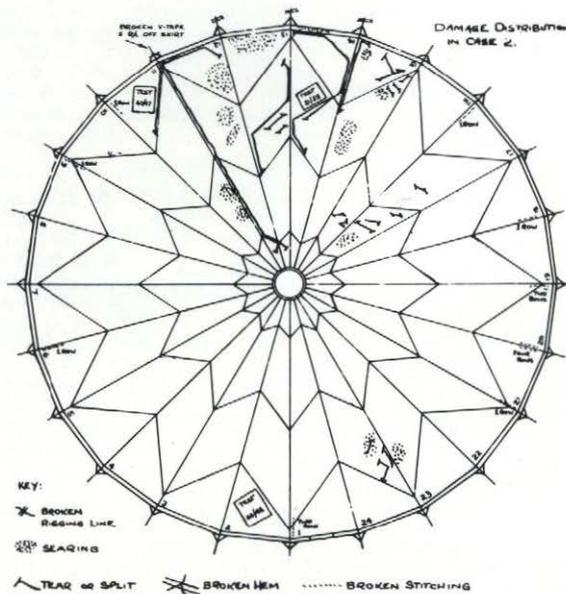


Fig. 3

There were a number of localities where the four row main seam stitching had broken adjacent to the skirt, the damage varying between broken stitches on one row to breaks on all four rows. Three broken rigging lines were found, numbered 12, 13 and 14 and with the breaks occurring about 8 to 12 inches below the skirt.

Very severe searing was present on the peripheral band between lines 13 and 14 at the place where the A panel had torn away from the skirt attachment. Although number 11 rigging line had not broken it had torn away from the skirt attachment. Figures 6 and 7 show details of the damage described. Figure 1 shows the type and extent of damage in the vicinity of the lower ends of gores 11 to 15.

Physical testing showed that the canopy had a mean porosity of 11.87 cu.ft./sq.ft./sec. Of three test pieces removed for tensile testing two showed ultimate tensile strengths of 44/48 lbs/inch and 40/47 lbs while the third, cut from gore 14 adjacent to severe tears, gave an ultimate tensile strength of only 21/25 lbs/inch. Associated searing damage on the panel could however account for this low figure. A section of rigging line number 11 (which had broken in use) was strength tested and failed at 442 lbs. A specimen taken from an unbroken line failed at a load of 435 lbs. The required tensile strength for rigging line material of this type, according to present day specifications, calls for a minimum break figure of 400 lbs.

Case 3. The canopy itself had been made in the U.S.A. in 1943. Physical tests showed it had a mean porosity of 15.06 cu.ft./sq.ft./sec. and tensile tests on two sections of canopy fabric showed ultimate strengths of 46/49 lbs/inch and 51/49 lbs/inch.

Damage on this canopy was much less than that found on the others. Figure 4 shows the nature of the damage which comprised searing and tearing in two main areas. The one, gores 1 and 24, included some large tears but the other, gores 3 and 11, showed only minor damage but this was over a fairly large area. The nature of the damage sustained on gore 1 is shown in detail in figure 8. In addition to the damage to the canopy No. 3 rigging line showed slight searing damage at about 40 inches from the peripheral hem.

MECHANISM OF FAILURE

The analysis of the damage sustained by the canopies indicates that it was caused during and/or immediately after deployment, and this in turn suggests that the method of deployment was not satisfactory under the conditions of use.

Before considering further the conditions under which the three canopies were deployed it is worthwhile stating the general problems of canopy deployment and the types of malfunction which can occur.

In order to achieve reliable opening characteristics it is desirable that the canopy and rigging lines should emerge from the pack in an orderly and sequential fashion. Thus in canopy-first deployment systems, the apex of the canopy should emerge first and be followed in sequence by the rest of the canopy until the peripheral hem starts to withdraw the rigging lines from their stowages. In rigging line-first deployment a similar but reversed sequence is required.

It is customary to use canopy first deployment on reserve parachutes because it offers slightly faster opening of the canopy than is obtained with the rig-

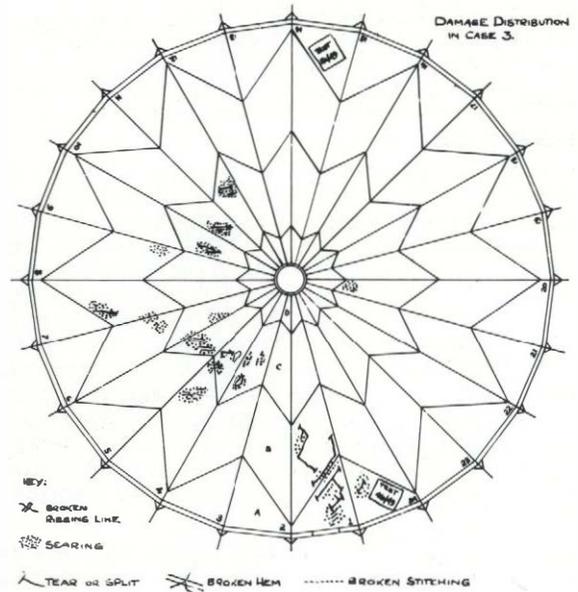


Fig. 4



Fig. 5



Fig. 6

ging line first sequence. Orderly and sequential deployment of canopy first deployment systems can be achieved by a number of methods including the use of extractor parasheets and restraining the peripheral hem in, for example, an elastically controlled pocket in the pack.

If, as is common in reserve parachute systems, the whole of the canopy is permitted to leave the pack in a bundle this may also cause some rigging lines to be extracted from their stowages before others. Under such circumstances it is possible for the canopy to be restrained by a rigging line during deployment and for both to suffer searing damage during the inflation process. Also the relatively untidy bundle of canopy, and possibly rigging lines, can result in blown peripheries and/or complete canopy inversion. The process leading to this, which is illustrated in figures 9 and 10, starts with one point of the periphery passing through the rigging lines on the other side of the canopy and then beginning to inflate.

If this process continues the canopy may adopt the classic blown periphery configuration similar to that shown in Figure 10. Sometimes the process can continue to complete inversion but on other occasions it can be reversed and the canopy open correctly. In all cases there is a strong possibility of severe searing which can result in mechanical failure of the material.

Severe searing of the canopy material can also be caused if the mouth of the canopy inflates in such a way as to trap the crown as shown in figures 11 and 12. The subsequent inflation of the remainder of the canopy, figure 13, causes the crown to be drawn rapidly through a tunnel formed by the inflated mouth section and leads to friction heating which results in searing damage.

The mechanisms, described above, which can cause appreciable damage to a canopy can be used as a basis on which to consider the damage to the three canopies described in this paper.

The damage pattern shown in figure 2 suggests that the canopy, described as Case 1., suffered damage when gores 13, 14 and 15 were drawn, at least in part, between rigging lines of gores 1 and 2 or 2 and 3. This is substantiated by the damage to the V-tapes on rigging lines 12 and 13 (see figure 5.) which have been torn from the canopy by a load in the opposite direction to that which would occur in normal loading. The searing shown on the chart in figure 2 may well have occurred during the early stages (see figures 9 and 10) of a complete inversion. Unfortunately there is no record of the last descent made with this parachute to confirm or deny that an inversion did occur.

In Case 2. the damage pattern shown in figure 3. suggests that gores 12 to 15 passed between rigging lines 22 and 23 or 23 and 24 and the type of damage to V-tapes and rigging lines (figure 5) substantiates this. In Case 3, an incident probably occurred where a partial blown periphery was formed by a section of gores 4 to 8 passing between lines 1 and 2. The lesser degree of damage on this canopy (figure 4) when compared with the previous cases suggests that the blown periphery formation was inhibited early in its process and that the canopy subsequently inflated normally.

COMMENTS ON DEPLOYMENT SYSTEM

Before considering possible measures to reduce potential hazards in using canopies with non-assisted deployment in free fall, a brief look at the

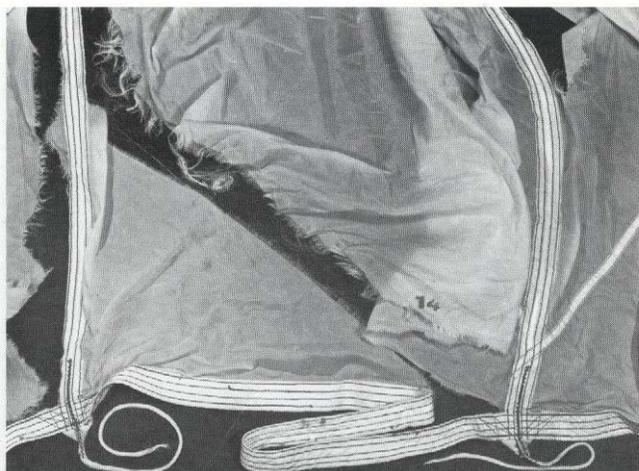


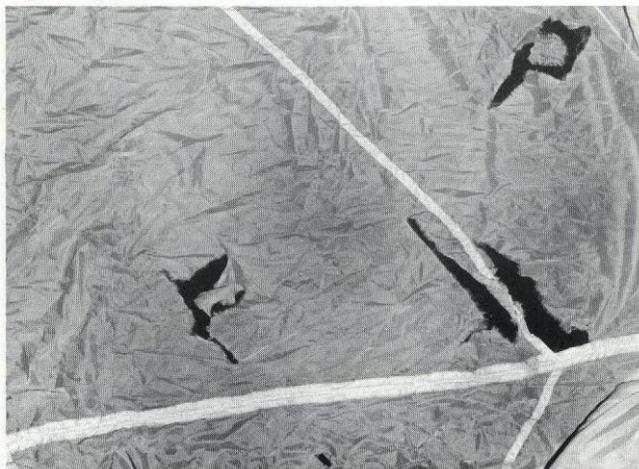
Fig. 7

reasons for adopting this method in the first place should be reviewed.

The history of the establishment of sport parachuting, as it is known today, has many roots but questions of origin of equipment usually go back to what the armed services have used and to the drills they have established for its use.

In the military application, concerning the delivery of airborne troops by parachute, the static line method of canopy deployment was adopted very early on. This method was extremely reliable in the initial stages of canopy deployment and therefore cases of malfunction predominantly involved partially opened canopies above and attached to the jumper. The paratrooper himself did not have canopy quick release units on his harness and, apart from the low altitude considerations and not always having a reserve parachute, canopy "cut-away" techniques had yet to be evolved. The state of the art latterly was that a reserve canopy was employed to get the paratrooper out of a severe malfunction, injury producing, rate of descent condition on his main canopy. In adapting a chest type of parachute assembly as a reserve the auxiliary parachute was removed primarily because it was necessary to deploy the reserve canopy away from under an already malfunctioned or tangled main. This was of course sound policy under the conditions envisaged as an auxiliary assisted reserve canopy could easily deploy straight upwards and foul, in the process, an already tangled main. However, in adopting a hither-

Fig. 8



to sound practice for free fall parachutists, the factors of consideration remain the same only under a specific range of sport parachuting malfunctions. In emergency conditions outside the range covered by the military requirements the straight adoption of military techniques can be disputed.

It is quite possible that the basic logic of continuing to use one system in applications which are extended beyond those for which it was originally established is considered safe enough. However W.D. Brown in his book "Parachutes" which has been a valuable contribution to the literature in the field of parachutes, states in discussing the question of performance of a parachute:

"... It is essential that the canopy should be pulled out in an orderly manner and also that it should be pulled out taut before the rigging lines emerge, *otherwise an abnormality is liable to occur.*" ... This will give a high rate of descent *resulting in injury or death of the parachutist...*

N.B. *Emphasis that of the present author.*

The type of reserve canopy damage caused under the conditions described is not of course just a recent type of occurrence. A report from the Dallas Parachute Club in the U.S.A. dated November 1958 (Published in the Sky Diver Magazine, November 1959) records a total malfunction with the reserve procedure being described as follows: "... at this time my position was completely head down in the maximum delta position ... pulled the ripcord of my reserve chute ... even without a pilot chute ... opened in a second ... breaking 8 suspension lines". Although no other damage to the canopy is recorded, the report concludes, "... Witnesses on the ground said not all of my reserve had opened and some said it was partially closed, due I guess, from the broken suspension lines ...". There must be many other cases which come to mind once memory is stimulated.

The need for a smooth deployment sequence has already been discussed and it has been stated that it is common for sport parachutists reserve assemblies to be so designed that the canopy is released from the pack simultaneously. This situation exists because of the difficulties which arise if a reserve parachute, fitted with extractor drogues, is used in the presence of a malfunctioning main which cannot be "cut-away".

However, in the presence of a main parachute which has for some reason not deployed or has been "cut-away" there is no danger of the reserve canopy coming into contact with it and thereby suffering damage or entanglement. Consequently there is a strong case for the use of extractor parachutes being fitted to reserve canopies used by experienced free-fall parachutists.

Considering all sources of information, indications are that the main hazardous area in reserve parachute deployment is when no auxiliary parachutes are fitted and when the user is in free fall near or at terminal velocity.

New designs of parachute canopy which may be used in the role of emergency reserve canopies should have characteristics which make them less prone to the type of malfunction previously in evidence. On the other hand the number of canopies, of the standard and well established design, which are in use is quite substantial and therefore shortcomings in their performance during certain "in flight" conditions should be better realised and appreciated.

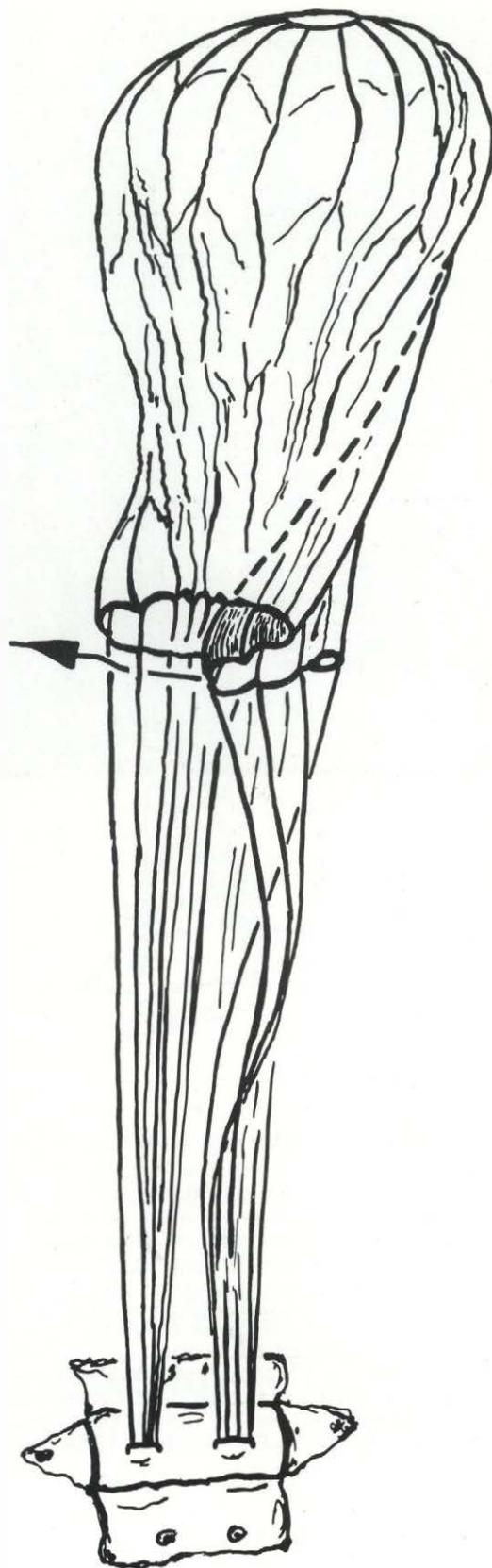


Fig. 9. Illustration of early stage of development of a blown periphery

Fig. 10

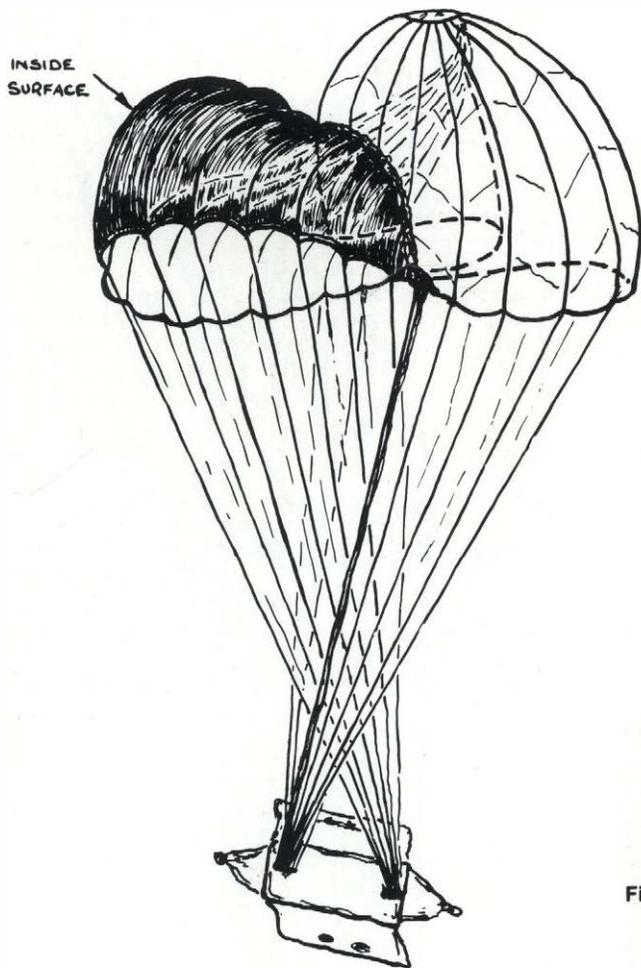


Illustration of a fully developed blown periphery.

Fig. 12

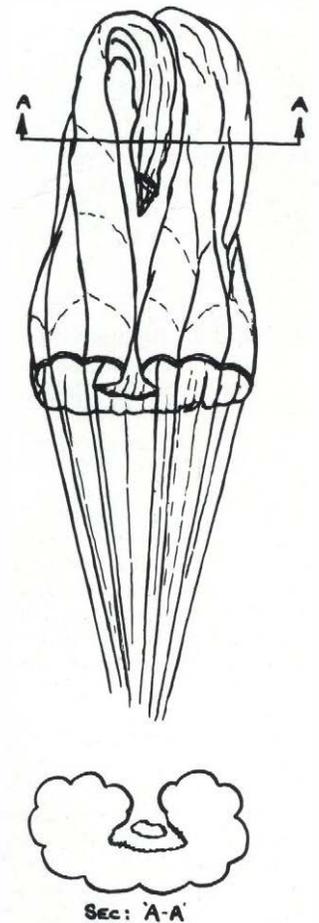


Fig. 11

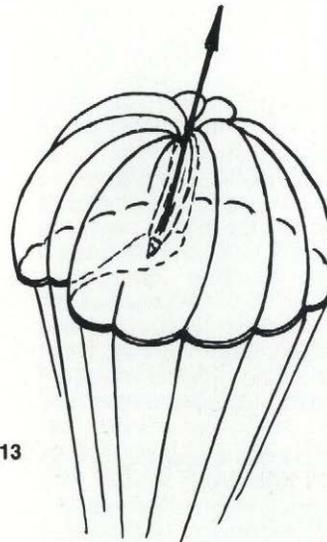


Fig. 13

In the light of the discussion, it is suggested that the simplest and safest way of reducing the present hazardous area of operation is to re-appraise current Reserve Deployment Procedures and it is suggested that the task could best be undertaken by a working party under the guidance of or within the Safety and Training Committee of the British Parachute Association.

ACKNOWLEDGEMENT

Grateful acknowledgment is made by the author to Messrs IRVIN of Great Britain Ltd. for permission to quote extensively from internal inspection reports and for the generous personal advice and assistance given by Mr W.E. Lewis, Director, Corporate Development Division of I.G.B. Ltd. during the writing of this paper.

EXIT AND RELEASE POSITIONS FOR CESSNA AIRCRAFT

The Cessna 172, 175 and 182 range of aircraft is in use by several clubs in this country for Sport Parachuting.

The release/exit position varies from club to club, but probably the most common is with the student stepping on to the wheel with the left leg, and with the right leg suspended clear.

This position on the wheel will allow the student to release backwards and to the right so clearing the wheel and step.

The fitting of a step to cover the wheel is no guarantee that the student will not make a poor release and strike some part of himself on the step.

The use of the left foot on, right foot trailing position will almost entirely eliminate collision.



The jumper using this man had fitted it in the belief that it was ready for use. At some time, the top pin had slipped from the cone and fallen into the grommet. Whoever did the check only checked the bottom pin. Result... total malfunction. **CHECK ALL PINS.** Check for gravel in the housing and close both protector flaps.

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"EN PREMIER CAMPEONATO PANAMERICANO DE PARACAIDISMO"

On August 17th, 1971 I had a letter from Bill Paul of the B.P.A. telling me that the B.P.A. Council had agreed that I could go to the Pan-American Championships in Mexico to "wave the flag". Of course I was delighted.

Exactly one month later I was aboard a Mexicana Airlines Flight for Mexico City. With me on the same plane was the entire U.S. Parachute Team which had just completed ten days of rigorous training at Elsinore, California. It was comforting to have them there because I wasn't sure what was to happen to me during the next two weeks having had no information or details from the Championship Organizers apart from a request for the entry fee of £52!

FRIDAY NIGHT

We arrived in Mexico City and a funny little man with an old fashioned camera insisted that he was THE PRESS and wanted to take photos of the U.S. Team. I was not included in his plans so with a sigh of relief I wandered through customs to look for whatever might be on the other side. It was 10 o'clock at night and since Mexico is rather like Spain with its very religious, no-women's lib attitude, I decided to stay close to the exit and wait for the U.S. Team to come through.

We arrived at the hotel at about 1.30 in the morning and the manager hadn't heard of us! "no, no, no," he said. "si, si, si," we said. We were not supposed to get there until the following day. So we paid the extra money — £6 for the rooms and quickly went to bed so that we could be ready for the next day which we had been told would be the practice day.

SATURDAY MORNING

"No, you have been incorrectly informed, today is not practice day. Manyana, manyana." Oh well, we were not too upset, and settled down to enjoy a beautiful day at the hotel.

We had been promised that there would be teams from France, Peru, Brasil, Argentina, Equador, U.S.A., Canada and about three other South American countries. Brasil, Argentina, U.S.A. and Canada were the only other teams there, and since both Brasil and Argentina had a girl team member each, I spent some time with them. Marylene from Brasil spoke excellent English and I could speak to Rosita in French and so we all became quite talkative and we looked forward to the next day.

OPENING CEREMONIES

Sunday came and we were all asked to get to the airfield about three miles away. However, there was no transportation so it was a bit difficult. The U.S. Team had prearranged for five Volkswagens and so these five V.W.'s made many trips back and forth to the airfield with competitors.

Mexico had invited thirty relative-work jumpers from Southern California to come to the Championships to make exhibition jumps and to make an attempt to improve the record for the largest star ever made. The relative workers had arrived approximately the same time that we did and then had to drive back to Mexico City, two hours away, to get on a D.C.3 so that they could fly over Teques-

quitengo during the opening ceremonies and make a star. There were 24 jumpers on the load, but the pilot did not give a cut and they were strewn out all over the sky and they only managed to make a 7-man star. The runway at Tequesquitengo was too short for the D.C.3 to land so they never had the opportunity to jump from it again.

The next day would be practice day and we could all find out if the ground altitude of 3,500 feet would make any difference to our rate of descent. The target area was made of sand about 6 inches deep and surrounded by a ploughed up area. There was a wind sock beside the cornfield about twenty feet from the target and the U.S. Team was instantly worried about possible injuries in the target area. The sand seemed very hard.

PRACTICE DAY

I had hoped to get an early start on practice day because there was no limit to the amount of jumps we were allowed to make. I managed to make three jumps but unfortunately I was still getting accustomed to having had 42 inches chopped off the lines of my P.C., but I landed quite softly in the sand each time and felt anxious for the next day's jumping to begin.

THE COMPETITION

There were a couple of set backs, and we didn't get started until noon. There was no manifestor, no area for the manifestor — had there been one, only one pilot, one aircraft (an Islander), no scorers, no messengers, no public address system, no notice board, no means to post results and finally the worst thing of all for everyone there, no toilet paper!

Sue Radamaekers of the U.S. team damaged her knee on the first day of jumping and later had to have surgery on it when she returned to Arizona. An Argentinian damaged his knee so badly that he could not even walk on it. Suzie Neuman hurt both her ankle and knee and was later put in plaster in Mexico City.

One morning, I was on the first load of the day and I was sitting in the plane while the pilot ran up the engines ready for take-off. Gloria Porter who was also in the plane noticed something dangling on the tail of the plane and brought this to the attention of the pilot. It was the elevator lock! That meant that if we had tried to take off, the plane would have roared down the runway and not been able to lift off the ground. Another time during a style round, the pilot made 5 circuits to let each competitor off and then forgot that there was a 6th jumper, me, still to go. He started to bring the plane down, so I crawled up to the cockpit and tapped him on the shoulder — you should have seen him jump! Oh well.

By Saturday we had completed the individual accuracy, two rounds of style and made all but one of the team jumps. Nancy Black won the women's individual accuracy followed by the other four U.S. girls, the two Canadian girls and then me in 8th place followed by the Brazilian, Argentinian and the Mexican girls. Clay Schoelpple won the accuracy and style events. All the excitement took place during the team jumps. I drew Carol Brand, Canada, and Marylene of Brasil as team members, and Kay



Hardman drew the two Mexican girls. These two teams were to compete against the U.S. girls team. Our team jumped first and I was standing on the target watching the next team come in. Unknown to us, the Mexican girls had less than 20 jumps each at the beginning of the competition and had only just qualified for freefall the week before. On jump run, the automatic opening device of one Mexican girl "popped" and her main pilot chute came bumping out. Kay grabbed the whole lot in her arms and threw the girl and her equipment out of the plane; her fast reaction no doubt saving them all from a lot of trouble. The other Mexican girl went right out after her and Kay followed too. About 50 feet above the target, the two Mexican girls faced each other and drove the LoPos straight at one another. They collided, one canopy collapsed completely, the girls clung to each other and landed very, very hard in the ploughed up area about 5 feet from me and the target. They had a broken shoulder, ribs and a lot of bruises between them and were very lucky to have had only that. The Mexican Team was never questioned on why they disobeyed a basic FAI rule that all competitors must have a minimum of a B licence.

Sunday was supposed to be a jump day, but the pilot had been put in jail. However, his cousin was the Chief of Police so the Pilot was out of jail in time for the next day's jumping.

The results of the competition were never officially posted, but from word of mouth I hear that I was 8th overall in the women's event, and the U.S. took all the other medals except for 3rd-Individual Men's accuracy which was won by Barry Brand of Canada, and 2nd-Individual Women's style which was won by his wife, Carol. There were only two overall trophies which were won by Clay Schoelpple and Nancy Black. The trophies were magnificent and no-one had ever seen anything like them.

Canada went forward to win the team event from the United States.

SUMMARY

I spent many happy evenings in the company of both the Argentinian and Brazilian teams. These are great people and sport parachuting is a very young sport in their countries. We exchanged stories on experiences and they are anxious to improve their standard of jumping. They are great sportsmen and were tremendous company all through the competition.

I would like to thank the Council for permitting me to enter the Championships and for giving me the opportunity to jump with those from other countries and the chance to make such firm friends with those jumpers. The next Pan-American Championships will be held in Argentina and I have it from Tomas Berriolo, the Argentinian Head of Delegation and Team Leader that the British will have the best welcome possible and will be honoured guests — I do hope that we can get a bigger team to go there in 1973.

Sheila Luker

Note from the Secretary-General :

'Mrs. Sheila Luker, known to many of you as Sheila Bodley-Scott before her marriage to Ned Luker of the United States, very kindly agreed, with the approval of the BPA Council, to represent Great Britain at the First Pan American Cup Parachuting Championships in TEQUESQUITENGO, MEXICO. Sheila undertook the task, which as we have read was not without its difficulties, entirely at her own expense. She certainly proved to be a most worthy representative of this country and whilst I know that Sheila would be the last person to expect praise, I feel that the following letter from the Team Leader of the 1971 U.S. Parachute Team which shows just how successfully she performed the task on behalf of us all, is worthy of publication. Sheila, please accept our sincere thanks for a job well done.

Bill Paul

THE 1971 FATALITIES – By P. W. SHERMAN

When a fatal parachuting accident occurs in England the law requires that an inquest be held. In the case of a sport parachuting fatality involving a civilian, the BPA will also form a Board of Enquiry to investigate the circumstances of the fatality, whether any negligence by a BPA member is involved, and what can be gained from the unfortunate event that can benefit the future safety of sport parachutists.

This Board of Inquiry is usually formed from members of the Safety and Training Committee and the BPA Council. Should anything come to light that requires immediate action i.e. the grounding of a particular piece of equipment that may have caused the fatality, steps would be taken to inform every BPA club and centre by the most direct means available.

During 1971 there were three fatal accidents involving members of the BPA. The following is a resume of each one:

Fatality No. 1

This involved a student on his third static line descent. The aircraft was a Cessna 185.

The student made a weak exit from the aircraft having failed to straighten his left leg to get his back up parallel with the ground. On being given the command to 'GO' his left leg came off of the step and his body dropped to arms length and he then let go of the strut. His legs remained bent up as he dropped away. This position started to rotate him on to his back. The pack break ties functioned normally but the pilot 'chute assist tie broke almost immediately having pulled the pilot 'chute only about six inches from the pack. The student continued to rotate backwards. The pilot 'chute was held against his pack momentarily by air pressure. As he rotated further the pilot 'chute passed to the outside of his left leg and the sleeve passed between his legs partially deploying the rigging lines. The student became aware that the pilot 'chute was trapped under his left leg and attempted to push it clear. The pilot 'chute and top of the sleeve then came clear of the student's leg and passed between the rigging lines emerging from the sleeve and moved up and jammed against the mouth of the sleeve.

By this time the student was face to earth and he assumed a basic 'frog' position. The student maintained this position until he struck the ground. He made NO attempt to pull his reserve. The instructor who despatched him estimated that from leaving the aircraft until he assumed the 'frog' position after coming face to earth took 4-5 seconds, and that the total time from exit to impact was 22-25 seconds.

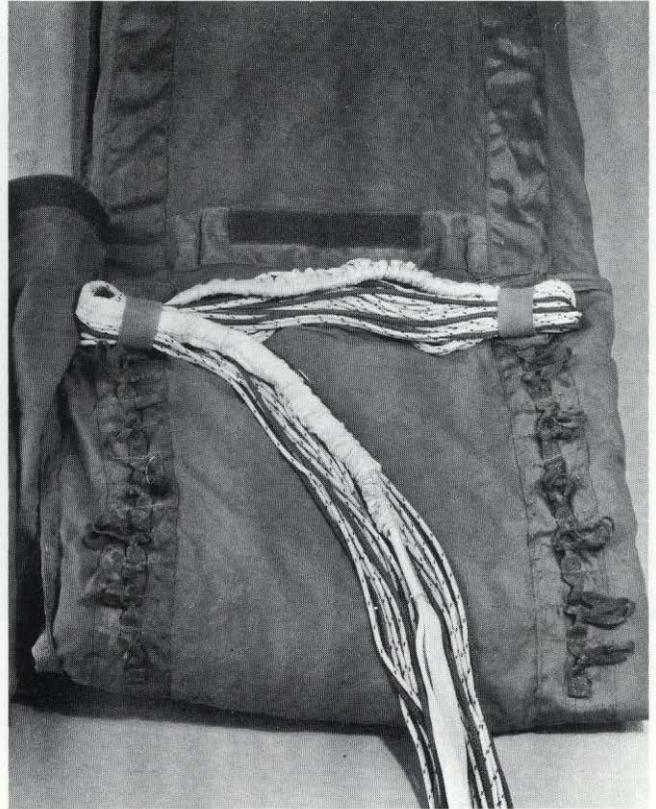
Fatality No. 2

This involved a student on his nineteenth descent. The student had done nine static line descents before being progressed to free fall. He then did eight descents during which he had various problems with his exit and stability and he was returned to static line jumping on the fatal descent.

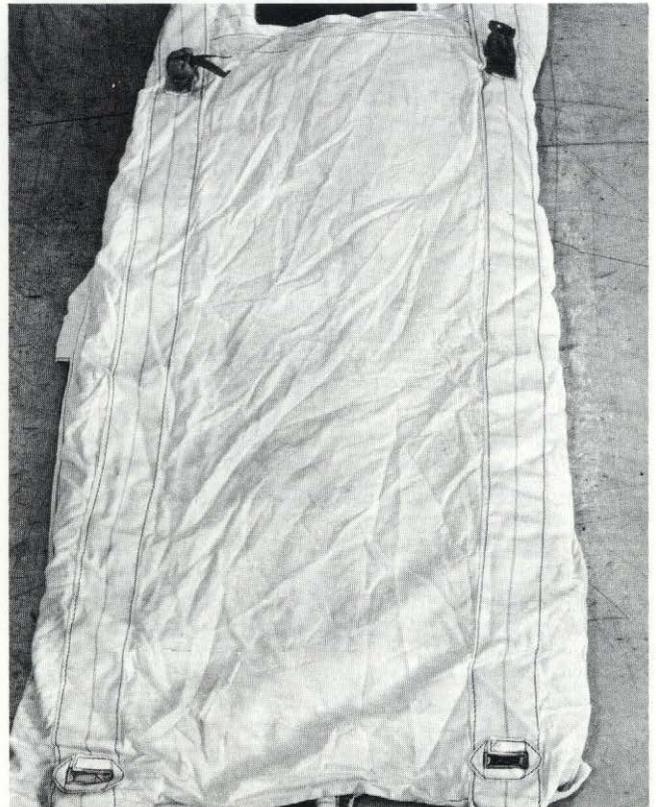
The aircraft used was a Cessna 172.

The student had a good position when he stood on the strut ready to go. He failed to go on the first command but left immediately when this was repeated. He did not strike any part of the aircraft.

He made a very weak exit and he bent at the waist, he then rolled onto his left side with left shoulder down, and then he rolled onto his back. The static line opened the pack and the canopy in its sleeve deployed from under his back. The canopy



Photograph 1



Photograph 2

Fatality No. 2 (Continued)

did not emerge from the sleeve. After 4-5 seconds the student pulled his reserve. The reserve canopy went upwards and became entangled in the rigging lines of the main parachute about mid-way between the lift webs and the sleeve mouth. The student attempted to clear the reserve from its entanglement, but was unsuccessful.

On inspection of the main parachute on the ground it was found that there were three bights of packed rigging lines in position in their elastics but the lines had separated and the right hand back and front lift web lines were half hitched over the sleeve at the position across the top of the mouth lock locking flap.

Fatality No. 3

This involved a jumper who was on his 133rd descent.

The aircraft used was a Piper Cherokee Six.

The jumper carried out a ten seconds delay from 3200ft. AGL. After pulling his ripcord the Dominator parachute which he was wearing operated apparently normally up to the point of development i.e., the pilot 'chute and sleeve came off the canopy but the canopy failed to inflate. The canopy continued to stream and reports of eye witnesses are that the jumper appeared to struggle with his lift webs for the rest of the fall.

It was found at the scene of the accident that the left capewell had been released, the safety cover had been removed on the right hand capewell, the jumpers right hand was gripping the right set of rigging lines with the main ripcord handle close to the hand in the rigging lines and the reserve parachute was open with the handle lying in the apex of the canopy. All the reserve rigging lines were in their stowages and the folds of the canopy intact.

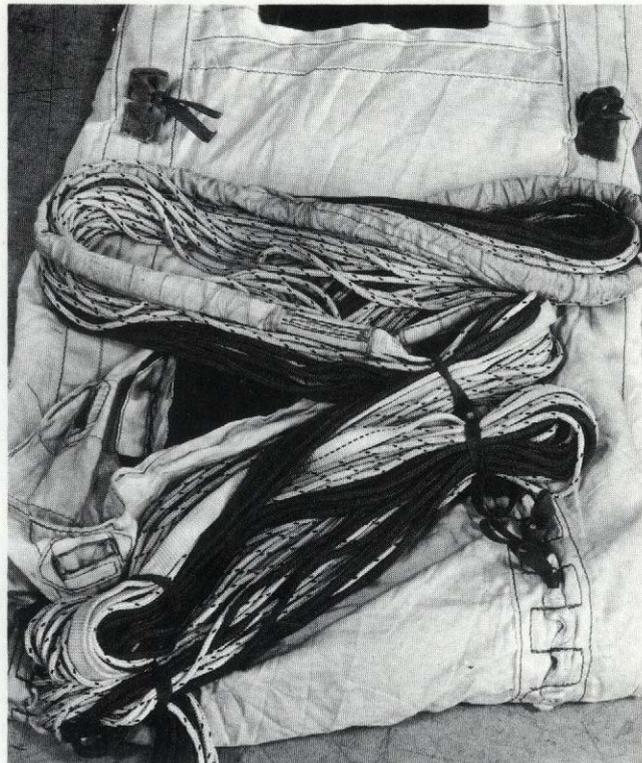
When the sleeve of the main parachute was examined it was found that the jumper had been forming the sleeve mouthlock incorrectly. On the Dominator sleeve the mouthlock is formed by turning back the complete end of the sleeve and securing the mouthlock by stowing the grouped lines through 1in wide elastic loops which have been passed through slots in the end of the sleeve. Photograph No. 1 refers. The bights of rigging line need to be stowed with a packing hook.

This jumper had avoided the need to use the packing hook by attaching normal elastic bands to these 1in wide elastic loops and formed his mouthlock through these. This is contrary to the packing instructions issued by the manufacturers and is very dangerous practice for the following reason.

When the rigging lines are paying out from their stowages all the strain of them being pulled out of the rubber bands is taken on the two mouthlock stowages. (Note, this only applies to this type of mouthlock and not to the more conventional type). Should ordinary rubber bands be used in place of the 1in wide elastic loops and those bands break whilst there are still stowages of rigging lines to pay out the mouthlock will open and the canopy will start to emerge from the sleeve under its own weight, whilst rigging lines are still being payed out from the stowages.

This jumper had been packing his parachute in this fashion. Photograph 2 shows the actual sleeve with the two broken rubber bands still in position. In Photograph No. 3 I have attempted to show what happens when these rubber bands break. As can be seen the sleeve is starting to open, there will be approximately 2-3ft of loose rigging lines flailing around whilst the canopy is starting to emerge into the slipstream and inflate. Not a safe situation!

I understand that a malfunction similar to the one on the fatal descent had occurred before on the same assembly and the jumper (not the one who was killed) had rode it down to well under 1000ft shaking the lines. Luckily the main canopy opened on this occasion.



Photograph 3

PARACHUTISTS TALISMAN



Actual size
Hall marked

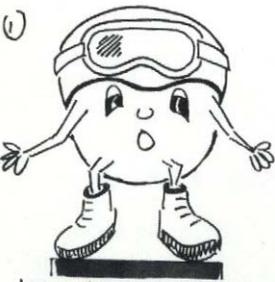
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4) ... AND I LOSE A
FEW! RIT

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FRED SEZ...



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RIGHT



WELL
NEARLY



FRED SEZ



I DONT CARE IF IT IS A NEW
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FLY KITES ON MY DROP ZONE! RIT

NIGHT RELATIVE WORK AT HALFPENNY GREEN

By MIKE BOLTON

Following the successful first night jump at Halfpenny Green some twelve months ago, it was decided to stage another such event, but this time to be a little more ambitious and attempt some night relative work. Under the leadership of Jim Crocker, it was agreed that we attempt a 'fourman' with John Shankland pinning Steve Talbot, Jim going in third and myself fourth.

On Saturday morning, the 29th January, we arranged to gather at the Green complete with altimeter and helmet lights fitted, to get some practice jumps in beforehand, but strong winds in the order of 20/25 knots prevented this. Nevertheless, late in the afternoon the winds abated a little, enabling us to carry out a 'streamer' run and snatch one jump in from four grand. From this altitude it didn't give much of a chance to put a 'four man' together, even for us, who are all members of the crack 'Hard-Ass Star Team' (sorry about that, but somebody's got to say it) although Jim and I were level with only a few feet from closing on the base pair at break off altitude.

As the evening approached, the lights to illuminate the pit were installed, provided by two car head lamp units and batteries, the lamps being mounted on 7ft high poles situated near the pit on either side of the wind line and adjusted to shine down wind so that the beams formed a cross on the disc. In addition, a Mr. Thomas who is Sales Engineer for a firm who specialise in night marker lighting equipment, Metalight (Aviation Division) Ltd., very kindly provided us with an arrangement of lights which were placed to indicate the wind line and opening point.

Following one of Jim's extended briefing sessions, which included something about 'playing it cool and flying it tight' (that phrase sounds familiar) the first lift got underway shortly after 6.30 pm. We were thankful that by now the wind had dropped to below 10 knots, although the cloud had begun to close in again to obscure the near full moon which had been prominent a short time before.

After the first four had left the aircraft on two passes, the remaining four of us switched on our helmet and altimeter lights in preparation for our

attempt, but soon was to be heard unmentionable words being uttered by Jim. We had begun to hit cloud at about 4000 ft., so after much deliberation, Jim decided to abort the 'fourman' attempt and go for two 'two man' links instead. I was to pin Steve on the next pass, and Jim to pin Shanks on the last pass. Steve's helmet light had been reluctant to work since emplaning, but as he stepped out to position himself on the wing of the Rapide, the B thing failed completely. There was little we could do about it now, so I gave him the nudge and we both plummeted into the murk. Fortunately, I managed to 'home-in' on his altimeter light to make an under 5 second link which we held for a further 5 seconds before tracking away for opening. After carrying out a canopy inspection with a torch strapped to my arm, I could hear jubilant cries, presumably coming from Steve, and as I turned to face the airfield I caught a glimpse of his canopy to my right and some two hundred feet higher.

Jim excelled himself with the spot, for with the aid of the lights by the pit, I managed to score 1½ meters, — nothing fantastic by the accuracy boys standards but nevertheless not bad, and Steve landed just short of the pit. Our success was soon followed by another link between Jim and Shanks, although their accuracy wasn't quite so good (big head). Jim was heard to mumble some excuse about an aching shoulder sustained on an earlier jump. To my knowledge, this is the first time that night 'hook-ups' have been successfully accomplished in this country.

Only two lifts were made owing to the airfield night flying restrictions, but in spite of the bitterly cold weather, participants and spectators alike, had a most enjoyable and memorable night and look forward to the next night jump at Halfpenny Green when it is hoped that weather conditions will permit a 'four man' attempt.

The A.G.M. of the South Staffs Sky-Diving Club was held on Sunday, the 30th January at 5.00 pm. The Club completed 4,681 jumps between 160 members in 1971, in spite of the fact that we were without the Rapide or a regular aircraft since August. This also does not take into account the jumps performed at the National Championships.

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Letters

1 Westhill Close,
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25th January 1972

The Editor,
Sport Parachutist

Dear Editor,

From my discussions with a number of people at the A.G.M. on the 22nd January, it was apparent that information concerning parachuting regulations was not being relayed to the Parachutists as a whole.

A particular example of this was that a number of members were not aware of the new regulations relating to Instructors qualifications until after such regulations had been adopted by the Council on the recommendation of the Safety and Training Committee.

I ought to point out that prior to the new Instructors regulations being accepted by the S.T.C., copies of the same in draft form were circulated to all C.C.I.'s and therefore if there was any breakdown in communication it was between C.C.I.'s and their own club members.

Remember that each club C.C.I. is its voice on the Safety and Training Committee and it is for the individual members to ensure that they are kept informed of S.T.C. dealings by their C.C.I. and at the same time encourage him to religiously attend all S.T.C. meetings. In this way the S.T.C. will be aware of the members views, which are absolutely vital if the regulations are to be accepted and be completely workable, and at the same time the membership as a whole will be aware of the S.T.C.'s views which are equally as vital.

May I finally remind all members that if they have any questions at all concerning parachuting regulations then they should write to me and I will arrange for the matter to be brought before the S.T.C. and dealt with at the earliest possible moment.

Yours Faithfully,
James Crocker
Chairman, Safety and Training Committee

WHAT FUTURE?

As a green young beginner to Sport Parachuting I have eagerly pursued the pages of this journal for pearls of wisdom from my elders. And very entertaining it has been.

I have chortled at their merry capers, thrilled at their narrow escapes from disaster and painstakingly followed closely reasoned arguments on the relative merits of head or feet first PLF's for first time students.

But something was missing. Nowhere was there any discussion on the future of the sport. No debate on where we are going and no plan of action. Is it all happening in smoke filled back rooms or has not the subject come up? We are involved in a sport that can offer a great deal to the individual but that has a growth rate noticeable only because of the small numbers involved.

We use resources (airfields, aircraft) that have heavy fixed costs but can spread them over very few people.

Because of the very small numbers involved centres must be few and far between to be viable, meaning long journeys at weekends, often conditions fit only for pigs and the lack of stimulation that large and thriving clubs could offer. There is also such a small base to draw talent from that our international standing is poor.

Sure I know we do not have the access to government funds that jumpers in other countries enjoy. That's not so surprising though. Why should any Minister of Sport put much money into such a small and stagnating sport?

If money is going to come into the sport it's not going to be from the government; at least not until it demonstrates a growth potential. Its going to come only if a planned and determined effort is made to build up the sport. By running it less like a Glee Club and more like a business, with a very good product to sell.

Why should we try and attract more members? Well no reason, if you like dangling on the end of a tatty shoestring. But try talking to fellow members who have jumped in countries where the sport draws large numbers and compare our facilities with theirs.

B.P.A. NEWS

1. NATIONAL PARACHUTING CHAMPIONSHIPS— 1972

DATES: SATURDAY 27th MAY TILL SUNDAY 4th JUNE

VENUE: ROYAL AIR FORCE WESTON-ON-THE-GREEN

Intending competitors should apply to the BPA Office for a copy of Rules and Regulations and Entry Forms

2. MAGAZINE SUBSCRIPTION COMPETITION

WINNER: D. M. HUNT (BPA No. 5644)

SUBSCRIPTIONS OBTAINED: 22

Mr. Hunt will receive a G.Q. PROTECTOR reserve parachute

Can we draw more people to Sport Parachuting; after all its not everones bag? So it's not, but there are 55 million people in this country. It drew you, are you so special?

I believe that what the sport needs is an expansionist plan based on discussion amongst the members and other interested parties (partly through the medium of this magazine) and implemented by a new organisation within the BPA structure.

As a basis for discussion I suggest the following measures:

1. The setting of a numerical target; say a B.P.A. membership of 10,000 by 1975.
2. The setting up of a Publicity Committee and if possible the appointment of a paid, part-time officer to carry out the Committee's policies.

This Committee should be solely concerned to show as many people as possible the tremendous amount the sport has to offer. Quite a bit is already being done to attract publicity and operate in a 'professional manner' but they are isolated efforts, arising from individual members initiative. What is needed to be effective is a co-ordinated and intensified campaign. Examples of what the Committee could initiate without incurring any great cost are:

(a) Press Relations—getting a favourable item in the Newspapers is an acquired art. Guidelines to clubs on how to approach a newspaper and how to present news items. A central point to which clubs could funnel news and which could approach the national press, radio and T.V. A point that the media could contact for photographs, news releases etc. The B.P.A. office has more than enough other work to give this the time it deserves.

(b) Preparation of publicity material. Descriptions of the sport, training and the activities and facilities of clubs. Costs of training and dates of courses, demo's etc. Posters and still photographs displays. Films are expensive but a comprehensive slide show on aspects of the sport from training to advanced techniques would not be too expensive to put together from existing shots and ones specially taken, could be duplicated cheaply to provide shows for hire.

(c) Approaches to colleges, social clubs of large companies, anybody with more money than sense about the possibility of forming clubs. Backing these approaches with the publicity material.

If membership was increased by these and other methods, then the sport would be in a position to further strengthen itself by attracting public funds and by new deals on aircraft and airfield usage.

R. Wilson

R. A. Wilson
47 Alexandra Road
Heeley
Sheffield

Dear Mr. Wilson,

Thanks for your letters. I shall use one of the two in the magazine in the near future.

I will try and answer some of your points to the best of my ability. I agree entirely that the sport can offer a great deal to the individual and the growth rate is small for the following reasons.

1. Too few clubs. The reasons are many, but are mainly that we live in a small country with few airfields due principally to the enormous cost of land and aircraft, an almost non-existent small plane industry and expensive fuel and oil. Many airfields near densely populated areas are useless as drop zones due to controlled air space.

Your remarks about standing internationally are, I presume, intended to mean international competition. I think you are partially right in that if the sport was wider based we might get more people interested in competition. However, in the past few years, with more clubs adding pits the interested in accuracy has grown and we see a swing from the domination by the military, up to 1970, to the virtual elimination in 1971, and the emergence of the civilians, training throughout the year in much the same way as the American competition scene. The style event still shows our lack of talent, compounded by the problems of training regularly each week-end, but with more clubs installing pits we might see a greater interest in the second of the two International events Style.

Access to government funds. We, that is the B.P.A. already receive a grant each year for the salary of the Secretary General. All British governments of whatever complexion, are reluctant to subsidise sporting organisations and as you say especially with such a small membership as we have in our sport. If you have in mind the French system of subsidy it has been changed to such an extent, that most clubs in Britain can offer competitive rates. I believe that only full subsidies are now offered by the Soviets and their allies, as they do to all their sportsmen. That's tremendous of course until you realise that in this world you get 'owt for nowt' and that isn't my idea of sport parachuting.

I agree about most of your remarks on publicity and to this end Dave Waterman has agreed to take on the job of publicising the B.P.A. But I do feel you have neglected the single most important reason for the membership being just over 3,000 and that is the lack of Drop Zones.

I think the secret of expansion lies in more clubs starting with their own drop zones. If you look at the present club list you will find that several clubs share drop zones and at least one club drifts from one to another. For too long parachutists have considered only airfields suitable for D.Z.s, instead of concentrating on farm strips and banding together to buy their own aircraft as the Old Warden Group have so successfully done.

If you want to know the secret contact Alistair Gregory, 19 Shepcote, Welwyn Garden City, Herts, Telephone Welwyn Garden 26046. You might find yourself in the happy position of having a drop zone and aircraft, yet being completely independent of government, big business, or any other 'fairy god-mother' and if you try hard enough yourself it could catch on.

"Caldy Rise"
27 Braids Walk
Kirk Ella
Hull

Editor
Sport Parachutist

Dear John,

Being forced into semi retirement by an industrial dispute, I have a great deal of spare time. So I will attempt to voice my opinion on one or two recent points of view.

Scrap the magazine? What kind of constructive solution is that. It was pleasing to see such overwhelming support against this proposal. I only hope this kind of support is given in the form of articles, letters and photos for the magazine. I for one say thanks John for all the work you are putting into its production. As for those who criticise—don't say it—write to the magazine if its worth anything it will make the presses.

STUDENTS! Not our students thank goodness. But those our taxes are helping to educate, want cut rate B.P.A. membership—who doesn't? Those of us who know what the B.P.A. is doing are aware that it costs money. So for those who don't, study the balance sheet and pay up or shut up.

Over

1st February, 1972

"ONE MAN'S OPINION" speaks for itself thank goodness. As a member of the Sub-committee that discussed and established these regulations, I would like this opportunity of answering Mr. R. Noble-Nesbitt.

Why should a potential instructor require two years involvement in Sport Parachuting?

These regulations are not made for the above average but for the average. Two years is by no stretch of the imagination a great deal of time in which to, firstly, master the basic parachuting skills, secondly, gain a standard of parachuting and knowledge of the sport to be considered category X and thirdly, have the confidence and ability to take responsibility for student training and jumping.

I had this proved to me at the beginning of last year. I ran instructors course in conjunction with a student course. Some of those involved later admitted that there was more to instructing than they had ever imagined. The experience of these people ranged considerably. Due to the new system no ratings were issued, but those who genuinely wanted to be instructors are now working under their C.C.I. awaiting to return to Grindale for the final phase of their course.

As for your friend who did 30 descents in two days, he filled three pages of his log book but I doubt if it did much on the scales of experience.

Why nine days of examination? Well as I said the regs are for the average. But they must make allowance for the below average. That means finding out what each O.I.'s ability or lack of it, is. It is only fair to both future students and the individual P.I. that they are assessed over as long a period and range of instruction as is feasible. Nine days made up of four days time off (i.e. Saturday and Sunday) and five days holiday is not too much to ask of a P.I. — if that's what he really is — a potential instructor. (I haven't forgotten the five days he had six months ago), that makes ten days off work — you won't get your instructors rating over the bar these days.

You mention two periods of instruction and examination as if it is unnecessary. Believe me it is necessary, many experienced parachutists have never instructed students and are unfamiliar with the techniques of student training and parachuting. The P.I.'s course is intended to give instruction techniques and knowledge of basic parachute training at the same time standardizing many points. The P.I. then returns to his club or centre and under the supervision of his C.C.I. helps in ground training and general parachuting. This is a period where he practices and gains confidence handling students without having the ultimate responsibility. A time for learning and a time to test his desire to be an instructor.

He then returns for a period of examination and assessment before he is given his ticket — he may then instruct students up to category VIII. "Positively ludicrous" your words friend. Take a seasoned accuracy jumper with by now 2½ years and 150 plus jumps and let him teach students with 50-60 descents down wind landings into a 20 meter pit — What's wrong with that? Have you ever met a seasoned accuracy jumper with only 2½ years in the sport. No, and neither have I, you never will. As for categories IX and X the regulations say that these

will be instructed by an advanced instructor, and so they should. These stages are an advanced stage in a students training and therefore deserve the attentions of an experienced instructor, i.e., advanced instructor. By January 1973 all C.C.I.'s will be advanced instructors and will run their club or centre with the backing of a number of years student parachuting and the experience this brings. He will be responsible for all that goes on at his DZ. This means he supervises his instructors and instructs both basic and advanced parachuting. If this is too much for him then obviously the centre requires more than one advanced instructor. You will find this happening at a number of the centres.

As for your next point, why does a C.C.I. have to be an advanced instructor? It is necessary in all organisations to have a qualified man in the bosses chair, in this sport there is no substitute for experience. You would not send a ship to sea with a sub-lieutenant in command, he might bring it back in one piece and he might not! — it's at the inquiry after, it transpires — he did not have the experience to take on such a responsibility. Enough said, I think.

To finish with I would like to say that every club and centre in this country had the opportunity of putting forward constructive ideas and in fact helping to establish these regs. The S.T.C. consists of every C.C.I. in this country, if yours does not attend meetings, then you are not represented. You've got to be in it, to win — mate.

*Yours sincerely,
Mike Deakin
B.P.A. 4239*

P.S. No, Mr. Noble-Nesbitt, there hasn't been wholesale slaughter of students in the past, but there has been a number of deaths and the adverse publicity that comes with them. Only an ostrich would forget this. It's time the sport was controlled by the people with the qualifications and the memory of those who have died because the sport was young and vulnerable. This sport has come of age in this country and its time many of us did also.

BPA OFFICE

*will be closed during the period
17th to 21st APRIL*

Urgent requirements should be passed to the following:

Safety/Training/Technical to

*Mr. J. Crocker, 1 Westhill Close, Olton, Solihull,
Warwickshire (tel 021.772.4151 office hours)*

General/Policy to

*Mr. L. N. E. St. John (Chairman BPA)
Tel: Office 0233.21661 Home 0233.23887*

Finance/National & World Championships to

Mr. J. Cole (tel 01.240.3313 office hours)

Far East Falcons

By DOUG PEACOCK

The RAF's own Parachute Display Team — the Falcons, recently brought a highly successful 1971 season to a close with a series of ambitious and spectacular demonstration descents in the Crown Colony of Hong Kong as part of the local Festival celebrations.

The centrepiece of the Festival was a series of six parachute descents into the Government Stadium, at night: an exercise complicated by the fact that the Stadium nestled in a natural bowl surrounded by precipitous cliffs topped by skyscraper flats. Unpredictable winds and turbulence swirling up the valley added to the natural hazards of night free-fall parachuting. A formidable sight from ground level, the stadium took on a slightly less fearsome aspect from 3,000 feet and appeared in the more realistic perspective as just another Falcons problem.

After a daytime practice descent, using Whirlwind helicopters from No. 28 squadron, the team were happy to make the run after dark. The first night jump was at 21.00 hours on the 25th November and despite upper winds in excess of twenty knots first class accuracy was achieved to the delight of the capacity crowd. The packed stadium erupted into a wave of sound as each individual parachutist descended into the arc of the floodlights and touched down on the fluorescent yellow target placed in the stadium centre circle. Within four minutes all twelve Falcons were on the ground lining up in front of the crowded stand to receive a tremendous ovation from their new public. This particular show was repeated five times for the entertainment of the local citizenry who left the arena en masse at the conclusion of the parachuting.

The night jumps were interspersed with high altitude free fall displays at various locations around the crowded island. Particularly impressive was one early evening descent from three Whirlwinds in formation at 10,000 feet into a miniscule stadium at Aberdeen, a fishing township in the south of the Colony. The Falcons treated the huge crowd to a fifty second spectacular aerial display, tracking in three separate formations against a backdrop of surrounding hills framed by the soft evening light, before opening their red white and blue canopies to glide effortlessly into the tiny arena on the light westerly breeze.

Further descents were made into various open spaces along the crowded Hong Kong waterfront, including a hair-raising ride through the skyscrapers into a crowded Victoria Park and a Saturday afternoon extravaganza from 12,000 feet into the races at Happy Valley. The eighteenth and final descent was made at Yuen Long in the New Territories close to the Red Chinese border. Jumping this time from a 36 squadron Hercules, the team maintained their high standard of accuracy by landing in rapid succession inside the penalty area of this provincial soccer pitch surrounded by canals and mud ponds with such precision that all twelve multicoloured canopies overlapped each other in a confusion of red white and blue on the ground.

The Falcons left Hong Kong the following day, burdened with Christmas shopping, having tried with some success to buy up half the island with half a months pay. They were given a tremendous send-off by the Royal Air Force Central Band who paraded to play the team aboard the aircraft.



Falcons outside Whirlwind



Sgt. Bob Souter with Falcon Mascot Fred

I LEARNT ABOUT PARACHUTING FROM THIS

BY SALLY CAIN SC R978 SCS99

In answer to Tony Dale's question in the last issue of Sport Parachutist—'Had a stiff pull lately?'

Yes!

I was jumping at Peterborough yesterday (23.1.72) with fellow Hard-Asses Richard and Chas plus Pat Slattery.

We went up in John's super 182 (nice big step for relative exit) for a 4-man from 7000ft but only managed to scrape 4800ft so decided on 2 2's instead. Richard and Chas went off and having left them a few seconds I went base for Pat. We got a good link I had a kiss pass, although Pat told me since that my nose was running!

After tracking away I came in for the handle at the normal height and got no response; a subsequent harder tug and a two handed effort produced the same result, so I decided to quit arguing with it and dump my reserve.

The deployment was instant, but quite comfortable without too much of an opening shock, so I was under a reserve at a reasonable altitude. Its only an unmodded 24ft T7A, but it felt nice! and I got a soft landing in wet mud.

We (Pat had landed beside me) got a lift back to the DZ and I took the rig off carefully for John to examine and it turned out to be a combination of two things that contributed to my 'problem'. The bottom pin was slightly muddy and the cone a bit clogged up with dried mud. That alone I could have sorted out, but the main reason for the malfunction was the fact that I had packed without leaving enough material at the top of the pack (it is really a glorified B4 designed by a Texan named Eddie Brown who made it especially easy to close, the idea being it would be an ideal pack for girls).

As I pulled the rip cord the metal plate at the end of the housing had slewed round and bent forwards as it took up the slack in the material of the pack. This caused the first pin to turn nearly at right angles to the ripcord thread and top cone, so that as I pulled the pin only pressed harder against the cone.

It won't be noticed on a check-out as everything looks quite normal on the ground — its not until the handles pulled that the top of the pack distorts. So anyone with a fairly loose pack like mine, make sure yourself that you get plenty of material up to the top there because I **certainly learnt about parachuting from that!**

AND FROM MIKE DEAKIN . . .

The time and place of this incident are irrelevant, but no doubt many people will remember the incident well—but none as well as I do.

There were eight of us plus a cameraman with the opportunity of giving a display before the crowd who had just seen us with the team prizes at the Nationals, we were raring to go.

It was a hot sunny day with clear blue skies, with the pre-jump briefing over we boarded our Rapide intending to climb to 9000ft. The plan was to do some relative with the cameraman filming. At about 6,500ft it was obvious we were not climbing fast enough and in fact by 7000ft the rate of climb indicator registered 0, making a pass over the DZ one of the team exited to do some style. With one less on board we eventually made 8000ft, our pilot told us this would have to be it.

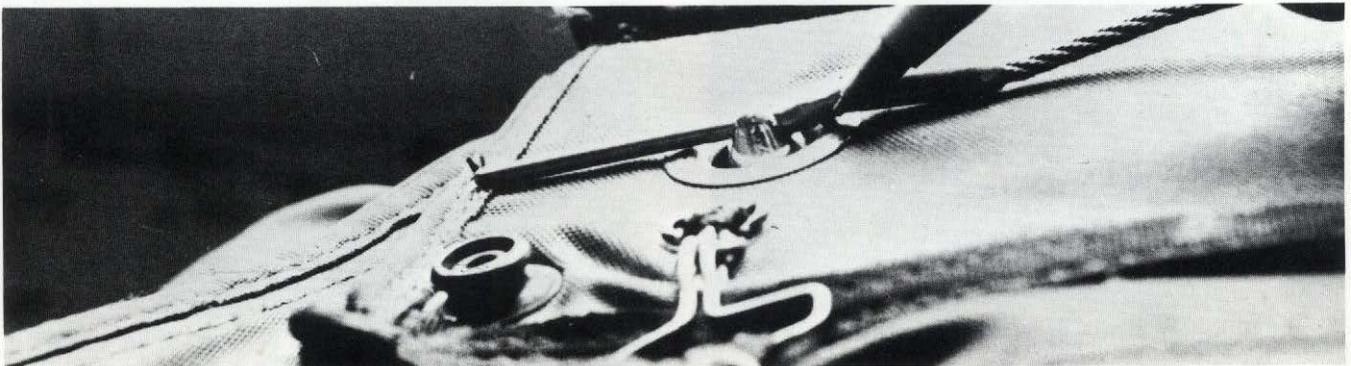
I was pinman with the camera in third slot, it took me some time to make the base, but once there I was pleased to see the camera in position. There were also one or two others coming in towards us, the star never did form although by this time there were a number of bodies skimming across the base. Suddenly, without warning I was pushed away at the same time I noticed a number of bodies above me. I checked my altitude — 2500ft — I was annoyed that we had gone through break-off height still linked. Re-checked altitude — 2500ft — what! Checked the ground — my God I'm done for! Dumped and then spent the shortest time of my life under a PC, some said less than a 1000ft, some said 1500ft! All I say is low.

We laughed and joked about the incident. but inwardly I was feeling quite sick and frightened. I wanted to stop jumping for a while but this feeling soon passed, but I only jumped by myself for a long time and doing only what I really knew — style and accuracy.

I must add that prior to this jump I had done some 160 jumps practising style and accuracy. I analysed that jump for many months and really learnt about parachuting from that.

Mike Deakin

Photograph below shows example of the shoulder of the pin dropping into the grommet



British Parachute Association

ANNUAL DRAW

Imperial Hotel, Birmingham—22nd January, 1972

Prize	Ticket Number	Winner's Name	Prize	Ticket Number	Winner's Name
1. Sheets and Pillow Cases	110808	N Massey	16. Motorist's Lamp	098580	Mae Milton
2. Stainless Steel Tea Set	013060	A. Ferguson	17. Coffee Percolator	116240	H. M. Stephen
3. Set of Towels	039673	P. Lillimore	18. Electric Toaster	071523	L. N. E. St. John
4. Box of Chocolates	102615	Mrs. Hennessy	19. Electric Hairdryer	100376	Peel (Fife)
5. Hostess Tray	060520	R. M. Balch	20. Parachutist's Jump Suit	051032	Mr. I. M. MacDonald
6. Box of Chocolates	050622	K. Cooper	21. Electric Frying Pan	107716	Mrs. R. D. Morris
7. Stainless Steel Fruit Dishes	064604	A. D. Moat	22. Portable Radio	018076	Monica M. Langley
8. Bathroom Scales	030810	Mr. John Brooks	23. Ladies Watch	014140	Miss S. Stelling
9. Carving Set	055891	J. G. Hughes	24. Gents Watch	000948	B. Black
10. Set of Saucepans	025375	Haines	25. Tape Recorder	012636	M. J. Page
11. Kitchen Scales	074033	D. Longbotham	26. Electric Mixer	058756	K. Gash
12. Electric Blanket	042774	I. Manhine	27. Record Player/Radio	048246	S. W. Talbot
13. Vanity Case	118033	C. R. Read	28. Refrigerator	060960	John Livens
14. Portable Radio	100960	D. Hackett	29. Holiday for Two in Majorca	078283	K. Peters
15. Book—'Sport Parachuting'	058966	Miss M. V. Pointer			

The British Parachute Association wishes to express the sincere thanks of its membership for the support of all who sold and bought tickets in the Annual Draw. The Association is grateful to Charles Shea-Simonds, the Author of 'Sport Parachuting', for donating a copy of his book (Prize No. 15) and to Brian Clarke-Sutton of British Para Ventures for donating the Parachutist's Jump Suit (Prize No. 20).

Provisional figures indicate a Net Profit of £1200 which will go towards financing the British Team for the 1972 World Championships.

WHIT-WEEK COURSE
20th MAY to 28th MAY

To be held at
HALFPENNY GREEN AERODROME
Rapide Aircraft

Open to all categories of Parachutist. Full canteen facilities available. Bar open evenings — entertainment!!!

Write please to
South Staffordshire Sky-Diving Club Halfpenny Green Aerodrome Bobbington Near Stourbridge Worcs.

GRINDALE RELATIVE WEEK
13th to 22nd MAY

Saturday 13th— Tuesday 16th. Practice for the experts, and relative course for beginners.

Wednesday 17th — Monday 22nd. 8 man star competition with a novice relative event will run concurrently.

Friday 19th— Monday 22nd. 3 Man team and individual accuracy competition.

All events will be four rounds, weather permitting. One complete round will constitute a result.

Accommodation for 35 at 80p per night bed and breakfast. Caravans available from a local company, details on request.

Entry forms available from the 10th April

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and "Competition"

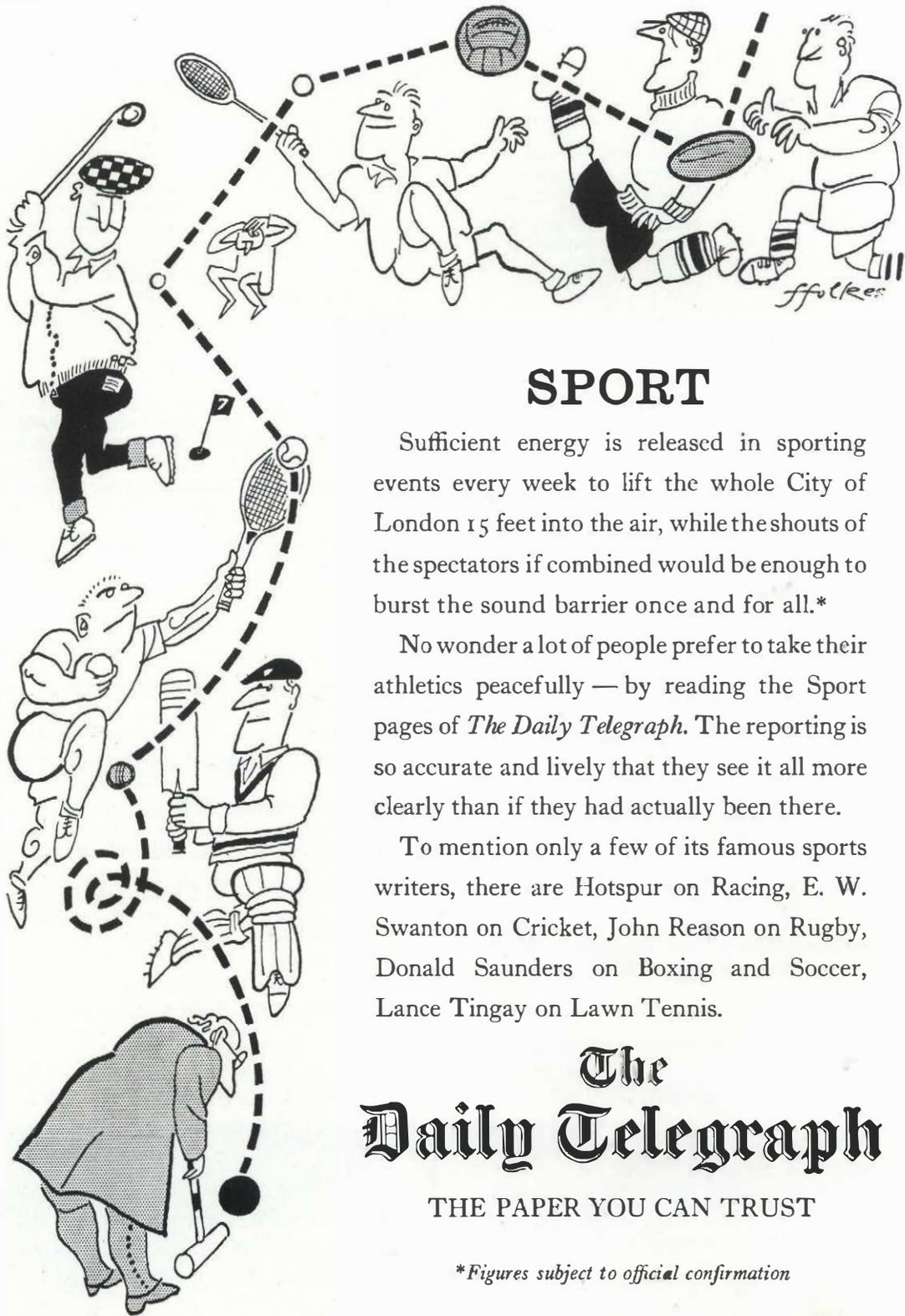
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SPORT

Sufficient energy is released in sporting events every week to lift the whole City of London 15 feet into the air, while the shouts of the spectators if combined would be enough to burst the sound barrier once and for all.*

No wonder a lot of people prefer to take their athletics peacefully — by reading the Sport pages of *The Daily Telegraph*. The reporting is so accurate and lively that they see it all more clearly than if they had actually been there.

To mention only a few of its famous sports writers, there are Hotspur on Racing, E. W. Swanton on Cricket, John Reason on Rugby, Donald Saunders on Boxing and Soccer, Lance Tingay on Lawn Tennis.

The Daily Telegraph

THE PAPER YOU CAN TRUST

**Figures subject to official confirmation*

SOUTH STAFFS SKY DIVING CLUB REVIEW OF 1971

1971 saw us go into the red for the second year running due mainly to lack of control of the purse strings. The job of treasurer in any club is very important, and he should pinpoint areas of loss-making soon enough for the committee to take appropriate action. In 1971 this was not done. He is also responsible for negotiation on such important things as the price of fuel and oil, and hangerage. A couple of pence on the price of the fuel can make a great difference when you find you have used 4,200 gallons! It is said that we used more fuel than all the club aircraft combined, the trouble is that some of that fuel was wasted.

People complain that jumping is expensive. There are a number of ways the cost can be reduced.

1. Pilots must be briefed in more detail so they know when to turn in and when not to ease off. On most days it matters little whether static liners go out at 2,400 ft or 2,700 ft, five second men from 2,600 ft to 3,000 ft*.
2. Make up lifts with a limited number of passes grouping five to eight second delays together perhaps. Make the lift efficient.
3. No cloud dodging. Its illegal anyway.
4. Emplane quickly and be ready.
5. Choose the emplaning point for maximum efficiency.
6. Pressurise the pilot to fly efficiently.
7. No wandering off to twelve thousand with two in.
8. Remember if you save one minute in ten, you save £600 per year.

These are just some of the things we shall try and do this year to cut aircraft operating costs, and the action is for you not the committee.

We shall continue to have a shortage of instructors who want to instruct. There are plenty who merely wish to take advantage of a free lift. We still want genuine instructors who will sacrifice their jumping to do work for the club, whether it is rigging or helping with the students. It is sad to hear that Colin May is leaving us as he devoted a great deal of time to club duties and on many occasions stood down on lifts to do club work or help students. Despite his hard work at student level he still succeeded in being selected for the 1971 British Team at the Adriatic Cup Competition.

Club membership has gone up to £7 this year because of rising costs. However we feel it is still very good value and with luck we should be able to keep it steady for a while now. A Weekend membership is still available and Group memberships will be considered on application. It must be borne in mind that the Club has to collect on average over £150 per week to stay in the black. Money raising exercises are now going on and the entertainment provided on certain occasions cannot be described here.

Just a word about the Airfield Authorities — there is no need to worry about the future operation at Halfpenny Green. Companies come and go but they can't move the airfield! One day some kind person will perhaps buy it for us.

MID EASTERN SPORT PARACHUTE CENTRE 1971 REPORT

This report is to introduce to British Parachutists one of the newer clubs in the country. Although only in existence a short time we have a strong, active but perhaps not highly experienced membership, and count ourselves as quite a wealthy club. Most of the club revenue comes from new students of whom we have quite a few. Apart from an inter club faction dispute the only major problem we have had so far is the aircraft, which we recently bought. It cannot be flown yet, as the company which was fitting the replacement engine went bust.

As is necessary in a small club we have a small core of experienced jumpers, plus a few approaching general permit standard and probably a larger than average number of basic students. Our chief instructor is a good instructor and jumper, but is sometimes criticised on two counts. He is not always available on jump days, he apparently goes over to the continent quite often saying something about doing one jump training courses for "package tour" students. Also he is rather unfair because he won't allow us to do night jumps, yet all our new Pakistani students say they have each done one.

Another feature of our club is our large junior membership, most of these members are too young to jump so they do parascending instead. Initially the two parts of the club lived happily together, and the ascenders proved very useful for indicating when the wind was too strong to jump, and they proved an easy touch for free beer, and food down at the local greasy spoon. However, last month two jumpers were injured when their canopies fouled tow lines belonging to ascenders. In the ensuing dispute some jumpers went as far as to say that ascenders should not be in the club.

The ascenders retreated to the local nursery school to hold a meeting, and there plotted to take over the club and affiliate it to the British Parascending Association (Groan) they even tried to steal our students with the lure of jumping P.C.s if they crossed over.

The threat of being overthrown in our own club was averted by the judicious cutting of tow ropes in strong winds, and by the arrival of the chief instructor, smelling of curry, and a new group of students doing night jumps. After much debate the vote swung our way, and once again parachutists are in control. (Peal of Bells.)

All jumpers are cordially invited to visit us, and good jumpers might be allowed to jump with the demonstration team. We had some trouble naming the team, the "Paralytics" didn't sound quite nice, and "Red Freds" had been done. Someone suggested it should be named after a colour or a bird so ignoring all the rude suggestions we finally settled for the "Blue Tits". We are very good. We jump Para Planes, only on the last demo we had to exit so far away the crowd couldn't see us.

**Editor's note : Standard release altitude for a Student attempting a five second delay is 2800 ft.*

Chairman, Secretary-General and members of the 1972 Council



PETE SHERMAN



DON HUGHES



KEVIN DINNEEN



JIM CROCKER



SECRETARY-GENERAL BILL PAUL



TRACY RIXON



JOHN COLE



BILL BOOT



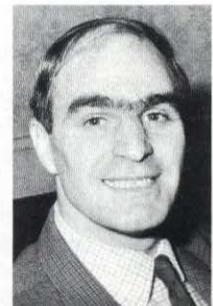
The new CHAIRMAN LAWRIE ST. JOHN



TONY UNWIN



GORDON FERNIE



BOB ACRAMAN



CHARLES SHEA-SIMONDS



MEMBERS AT THE AGM



CURLY WEE



WING COMMANDER GERRY TURNBULL

*Photographs by
Dave Waterman*

BRITISH PARACHUTE ASSOCIATION .
MINUTES OF ANNUAL GENERAL MEETING HELD AT
IMPERIAL HOTEL, BIRMINGHAM AT 1600 HOURS
ON SATURDAY 22nd JANUARY, 1972

PRESENT :

Wing Commander G.F. Turnbull, OBE, AFC, RAF (Retired)— Chairman and 245 other members

IN ATTENDANCE:

Squadron Leader W. Paul, BEM, RAF (Retired)— Secretary-General

ITEM 1 CHAIRMAN'S REPORT

The Chairman outlined his Annual Report which had been previously distributed to the membership and the following observations and comments were received from the body of the meeting:

a. **Reporting of Council Business.** Mr. Shone expressed the view that in some cases where papers or letters had been submitted to Council the resultant reporting of the contents had not been sufficiently detailed to give members a clear impression of what had been put forward. The Chairman accepted the observation as fair comment and it was noted for action.

b. **Parascending.** Mr. Crocker referred to the Chairman's comments concerning parascending and felt that these had not fully expressed the Council's decision taken at the meeting of 28th October, 1971, when it was agreed by 7 votes to 2 that BPA does not continue to accept Parascending indefinitely as a branch of sport parachuting and that we as a Council, in the interest of both sports, encourage and assist Parascending as a whole to form its own National Governing Body. He felt that the report had not made it clear that Council had gone so far as to pass a resolution saying that we should encourage and assist them to form their own National Body. His own personal view was that the sooner this comes about the better.

Mr. Howells asked if the resolution quoted by Mr. Crocker was in fact constitutional and was the Council entitled to pass such a resolution. The Chairman replied that the resolution was in order and, whilst it did not express his own personal views, it was the decision of the elected Council.

Mr. Unwin stated that it should not have been necessary for Mr. Crocker to read out the resolution which like all Council meetings should have been reported in the magazine for the information of the members. He did feel however that this was being corrected somewhat in that the minutes of more recent meetings had been published.

Mr. Batchelor whilst admitting that his comments were not relevant to the matter under discussion, i.e. Parascending, referred to Mr. Unwin's comment and to those made by Mr. Unwin at the Council meeting of 15th August when he asked that Minutes be published in the magazine. He also reminded the meeting that at the AGM last year he himself had asked that Minutes of Council Meetings be communicated to members. Why had it taken Council eight months to come to a decision to communicate the Minutes to members? Surely the efficiency of the Council evolves around the strength of the Chairman — the strength of any committee resides with the power and purposefulness of the Chairman who guides the committee.

In thanking Mr. Batchelor for his comments and criticism which he accepted, the Chairman pointed out that there had been problems associated with the publication of the magazine but minutes were now being published. He invited Mr. Batchelor to speak with the Editor who would enlighten him concerning the problems with the magazine.

At this point Mr. Thomas referred to the latest issue of the magazine and took the opportunity to thank the Editor, Mr. Meacock, for what he thought was a real good issue. The meeting endorsed this expression of thanks.

Mr. John Ellerton (Seaford College) in referring to the Council's resolution concerning Parascending, felt that perhaps the argu-

ments on which the resolution was based were presented from a position of ignorance of the facts and wondered if presenting a motion from such facts was indeed constitutional. The accusations made and the innuendos passed were insulting to those members who were in fact taking the sport very responsibly and helping to encourage the young people involved to eventually join the BPA and become 'free fallers'. They were constantly pressing and advertising the free fall aspect of the sport. The whole aspect of Parascending was based on a very responsible manual of instruction and safety was constantly being investigated. If one or two members had seen irresponsible people who had got hold of a parachute and were trying to launch themselves then the responsible parascenders would like to know the facts and figures so that they could investigate and put an end to such things.

The Chairman referred to a letter which had been received from the Jersey Club and which showed how they as a club were in fact overcoming the problems which now faced BPA/Parascenders and were now working for the mutual benefit of each section of the sport. He hoped the letter would appear in the next issue of the magazine.

c. **Safety and Training Committee**

(1) Mr. Thomas asked if the position of BPA Doctor had been filled since it was vacated by Wing Commander Johnson on his departure overseas — if not, he suggested that Doctor Murray-Leslie be appointed.

The Chairman reported that nominations had already been asked for in Council and two had been received. He was pleased to accept this additional nomination which, if all three accepted, would permit us to have a Doctor in each of the three regions, North, Midlands and South.

The Chairman further reported that because of some difficulties that had been experienced, Wing Commander Johnson had obtained agreement for the setting up of a Medical Appeal Panel for Parachutists.

(2) **Instructor Rating — L/Bdr. Kemley.** L/Bdr. Kemley reported that he held a BPA Instructor Rating which was issued on 15th March, 1971, as a result of his attendance at an approved Instructor Course. He wished to know if this rating was still valid as he had been told that he was in fact no longer an instructor. The Chairman confirmed that unless he had received any written communication to the contrary his instructor rating was valid. L/Bdr. Kemley asked that his name be included in the Instructor List in the magazine. He then referred to BPA Regulations concerning the renewal of instructor ratings and stated that certain individuals shown in the list of instructors did not in fact conform with the requirements laid down. The Chairman pointed out that this was not really a subject for this meeting but should be referred to the Safety and Training Committee.

Mr. Sherman (Chairman S & T Committee) informed the meeting that Mr. Kemley's instructor rating had been discussed and any dispute in the matter was between Mr. Kemley and the APA.

Mr. Crocker wished to endorse the remarks in the Chairman's Report concerning Mr. Sherman and felt that the BPA was in his debt for the excellent and productive manner in which he had conducted the S & T Committee during the past year. This expression of thanks was warmly approved by the meeting.

(3) Potential Instructor Requirements. Mr. Merrick expressed considerable concern at the possible effects of the new regulations concerning the requirements for potential instructors. He made reference to the letter from Mr. Noble-Nesbot, recently published in the magazine, and asked that the S & T Committee seriously reconsider the new regulations in the light of the arguments put forward in the letter.

Mr. Hill felt that the time element of 17 days which had been laid down may well be more than some suitable candidates could spare: in fact some may not have 17 days holiday in a year. He asked that the S & T Committee take notice of the comments and consider the possibility of using an aggregate of weekends to make up the 17 days. Mr. Sherman pointed out that the time element was 17 days spread over a period of time with at least six months between two periods.

The Chairman advised that comments on this matter could and should be passed to the S & T Committee via CCI's, all of whom were automatically members of the Committee.

In reply to Mr. Rolfe the Chairman stated that the report on the fatal accidents of 1971 would be published in the next issue of the magazine together with statistics taken from the Annual Returns.

(4) Annual Raffle. The Chairman reported the latest estimated profit on the Annual Raffle as being just over £1,200. He thanked those members who had given their support and was pleased to see such willing support.

Mr. Shone who had recently returned from abroad commented that it would have been nice to have received Raffle Tickets. The Sec. Gen. replied that tickets had been sent to all paid up members.

ITEM 2 ACCOUNTS AND BALANCE SHEET

The Chairman invited Mr. John Cole to outline the Accounts and Balance Sheet for the year ending 31st March, 1971 (previously distributed to the membership). He pointed out that the Balance Sheet did not reflect the increase in Membership Subscriptions approved at the last AGM and that the decreased amount carried forward to the Accumulated Account confirmed the wisdom of the Sec. Gen's insistence that the Subscription should be increased. The following comments were made:

(1) Write-off of Parachute Rigs. In answer to a question as to why these rigs had been written-off it was pointed out that it had been agreed that depreciation should be at the rate of 50% per year and therefore were now shown as having no monetary value in our account. The rigs were still in use, apart from some canopies which were now beyond repair. The rigs were at present on loan to South Staffs (3), Yorkshire (3) Metro Police (3) and Indep. Skydivers (1).

(2) Display Receipts. It was pointed out that the £2 shown as display receipts were in fact a single payment from a member who, in spite of the fact that BPA does not now expect a percentage from display receipts had paid his in.

(3) Sport Para Services. Mr. Thomas observed that with the last News Letter there was a Price List of Sport Para Services and asked if we gained anything from this service. The Sec. Gen. confirmed that Sport Para Services would be invoiced for the cost of time and postage invoiced.

Acceptance of the Accounts and Balance Sheet as presented was proposed by Major B. S. Schofield and seconded by Mr. P. Denley.

Carried unanimously

ITEM 3 ANNUAL SUBSCRIPTIONS

Mr. Cole stated that there was no plan to increase the membership subscriptions for the ensuing year. It was proposed by Mr. Sherman and seconded by Mr. Denley that membership subscriptions remain as present.

Carried Unanimously

ITEM 4 APPOINTMENT OF AUDITORS

The meeting unanimously agreed the appointment of Messrs Edward Moore & Sons as auditors for the year ending 31st March, 1972, and that their remuneration be £150 exclusive of accountancy charges.

ITEM 5 SPECIAL BUSINESS AS NOTIFIED AND DISTRIBUTED TO MEMBERSHIP

(1) Exemption of Students from Normal BPA Subscriptions. A proposal by Mr. G. Robinson and seconded by T. Nichols (both of Leeds University Union SPC) was read by the Chairman:

"That students (anyone entitled to or holding an International Student Card) at schools, colleges, universities etc. be exempt from normal BPA subscriptions and will subscribe sufficient to cover insurance and administrative charges only (i.e. will be exempt from the magazine subscription and the normal subscription)."

Considerable discussion followed and when put to the vote, the proposal was defeated by an overwhelming majority with only 6 votes in favour of the proposal.

(2) 'Sport Parachutist' magazine be replaced by Monthly Newsletters and Year Book. A proposal by Mr. G. Robinson and seconded by Mr. T. Nichols was read by the Chairman:

"That the magazine 'Sport Parachutist' be scrapped and replaced by an improved system of Monthly Newsletters and Year Book."

The only comments from the body of the meeting were against the motion. Sgt. Dale stated that Council had already agreed to subsidise the magazine from BPA funds, should this be necessary. He suggested that the Editor should be paid for his services.

Mr. Shone, after defending the continuance of the magazine and spending more money on its production, suggested a reduction in the Membership Subscription by withdrawing the magazine element, and the introduction of a separate Magazine Subscription. In answer to Mr. Shone, the Chairman pointed out that his suggestions could not be taken up at this stage but should he wish to pursue the suggestion it should be submitted to Council.

When put to the vote there were no votes in favour and the motion failed by default.

Major B. S. Schofield, whilst recognising the 30 day Rule contained in the Memorandum and Articles of Association, sought to raise an unspecified subject which he felt was of great importance to the membership and which, legally, he had only been able to raise within the past four or five days.

The Chairman reiterated the 30 day Rule and suggested that the alternatives open to Major Schofield were (a) To call an Extraordinary Meeting, or (b) to appear before the new Council which would assemble immediately following the close of the present meeting— Major Schofield agreed to the latter alternative.

ITEM 6 ELECTION OF COUNCIL

The Chairman invited the Secretary-General to announce the results of the election and name the new Council:

Total Ballot Papers received: 433

	votes		votes
W. J. Meacock	328	T. Rixon (Miss)	234
R. S. Acraman	302	L. N. E. St. John	188
G. C. P. Shea-Simonds	295	A. J. Unwin	185
P. W. Sherman	282	K. Dinneen	182
G. F. Turnbull	244	W. G. Boot	180
J. Crocker	241	A. J. N. Cole	166
D. Hughes	238	W. G. Fernie	145

The above form the new Council and the remainder of the voting was:

R. O'Brien	140	T. Macartney	89
G. Webster	111	I. Louttit	63
R. Francis	100		

Total votes: 3713

There being no further business the Meeting closed at 18.15 hours.

Before members dispersed, Miss Sally Cain, on behalf of Mr. Crocker's 'Relative Group', made a presentation to Mr. Crocker in appreciation of his efforts in furthering 'Relative Work' in this country.

BRITISH PARACHUTE ASSOCIATION
MINUTES OF COUNCIL MEETING IMPERIAL HOTEL BIRMINGHAM
22nd JANUARY, 1972

PRESENT:

W. J. Meacock	T. Rixon
R. S. Acraman	L. N. E. St. John
G. C. P. Shea-Simonds	A. J. Unwin
P. W. Sherman	K. Dinneen
G. F. Turnbull	W. G. Boot
J. Crocker	A. J. N. Cole
D. Hughes	W. G. Fernie

IN ATTENDANCE:

W. Paul—Secretary-General
Major B. S. Schofield

Item 1

APPOINTMENT OF OFFICERS

a. The Secretary-General chaired the meeting for the purpose of receiving nominations for Chairman of the BPA Council:

L. N. E. St. John was proposed by Wing Commander Turnbull and seconded by Mr. J. Crocker.

Wing Commander Turnbull was proposed by Mr. J. Cole and seconded by Captain D. Hughes.

Mr. L. N. E. St. John was elected Chairman by 12 votes to 2 and took over the Chair.

b. **VICE-CHAIRMAN**

Mr. G. C. P. Shea-Simonds was proposed by Mr. J. Crocker and seconded by Mr. R. S. Acraman.

Messrs. Sherman, Hughes and Turnbull declined to accept nomination and *Mr. G. C. P. Shea-Simonds* was unanimously elected Vice-Chairman.

c. **TREASURER**

Mr. A. J. N. Cole was proposed by Mr. J. Crocker and seconded by Captain D. Hughes. There were no other nominations and Mr. Cole was unanimously elected as treasurer.

d. **CHAIRMAN SAFETY & TRAINING COMMITTEE**

Mr. G. C. P. Shea-Simonds was proposed by Miss T. Rixon and seconded by Mr. A. J. N. Cole.

Mr. J. Crocker was proposed by Mr. W. G. Boot and seconded by Mr. L. N. E. St. John.

Mr. J. Crocker was elected as Chairman of the S & T Committee with 8 votes in his favour against 5 votes for Mr. Shea-Simonds (and one abstention).

Item 2

CO-OPTED MEMBERS OF COUNCIL

The meeting agreed that the following be invited to become co-opted members of the Council:

Chairman Army Parachute Association
Chairman Royal Air Force Sport Parachute Association
Parascending Representative (as nominated by Parascenders)
Mr. D. Waterman (Public Relations Officer to Council)

Item 3

PROXY VOTING IN COUNCIL

A proposal by Mr. Shea-Simonds that proxy voting should be allowed in Council failed to get a seconder and was therefore withdrawn.

Item 4

NATIONAL CHAMPIONSHIPS—1972

A proposal by Mr. Boot and seconded by Mr. Acraman that Mr. Cole be appointed the Meet Director for the 1972 National Championships was unanimously agreed.

Item 5

OTHER BUSINESS

a. The Chairman asked the meeting to observe the practice of submitting items of other business in good time. The meeting then agreed that 16.00 hours on the day prior to a Council meeting would be the recognised deadline.

b. The Chairman invited Major Schofield to address the meeting on the matter he had unsuccessfully tried to bring before the AGM. Major Schofield gave an account of the events leading to the recent publication in 'Sport Parachutist' of an apology addressed to Mr. W. Neumark.

It was the feeling of the meeting that the matter could possibly have been amicably concluded in Council if it had been placed before them before the individuals concerned had taken recourse to legal advice. A proposal by Mr. Sherman and seconded by Mr. Crocker that *BPA as proprietors of the Magazine should pay the sum of £60 towards the costs to be paid by Major Schofield* was unanimously agreed.

Next Meeting:

THURSDAY 10th FEBRUARY, 1972 AT
ARTILLERY MANSIONS AT 18.30 HOURS

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50 lb BREAK TIE, OR TIE THAT BREAKS
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Tensile tests on 50 lb break tie (specification D.T.D. 786E No. 1 Cord, nylon cord rated at 50 lb minimum strength) as used for static-line assembly to B.4 packs and the like, has shown some interesting results. For example, break tie formed in a single loop breaks at repeatedly higher loading than 50 lb and averages out at 64 lb.

Break tie formed in a double loop breaks at 135.5 lb (minimum load recorded was 120 lb, maximum was 151 lb). During all tensile tests the loop was formed normally as tight as possible, with a double reefknot and stopknot to prevent slippage.

It was noted, also, that searing of the nylon webbing static-line and the nylon break tie takes place. This has the effect of reducing the strength of the static line.

BRUNEL ON THE ISLAND

After three and a half years of much indifference and lack of united effort in parachuting as a club, Brunel has finally established itself and started to jump on the Isle of Wight.

The first completely self-organised jumping took place in August 1970 at Bembridge Airport, thanks to the co-operation of Britten-Norman, who enabled us to use the airfield for ten days during their annual works shutdown. Pat Slattery and Eric Mitchell instructed and with thirty jumpers of all categories worked quite hard to make the venture a success. Since that first week we have ironed out most of the problems which initially occurred and subsequent visits to the Island have taken place, usually on long weekends.

The year of 1971 saw us at Bembridge over Easter, part of the summer and Christmas. Mr Skydiving himself, Terry "The Eyes" Hagan and Eric Mitchell helped us log 250 descents on these occasions. After ten very successful days in August, we were sorry to hear that Terry was leaving the country for South Africa. A great rate of progression was obtained due to the enthusiasm and guidance of both instructors. We have found that a concentrated period of jumping as described above is invaluable to the student in the very early stages of jumping as regards confidence and progression.

Some of those present at the summer gathering were already looking ahead to the possibility of forsaking the niceties and comforts of Christmas at home for spending it in a Cessna 172, above Bembridge. With the everpresent uncertainty of who was going to actually be there to jump hanging over us, Christmas arrived with three jumpers in attendance together with our pilot Dick Sherwin. Dick, being relatively new to the art of flying parachutists, proved himself to be most adept, this quality probably originating from his many thousands of rapid ups and downs as a tug pilot at Dunstable. We found that he had a quality rarely found in jump-pilots, of flying solely for the jumper, his stock-in-trade ditty being "I will fly you anywhere, anytime . . . you're the ones paying".

On Christmas Eve afternoon, a lift got airborne, but despite Dick's abilities in many fields, even he could not make the cloud-base rise above 1400 feet; however Christmas day dawned with a much higher cloud base and by mid-day it was brass monkeys at seven grand, the three of us logging nine descents. The following day saw the rest of the jumping contingent arrive, all five of them that is, and most of us achieved nine jumps over the remaining days.

The club will be jumping over Easter from Thursday 30th March to Tuesday 4th April, with a B.P.A. instructor present of course.

January 1972

THE FRENCH PROGRESSION

In an attempt to understand the French system of progression I wrote to Dave Savage, who for some years has worked at the Parachute Centre at Lille. This was his reply.

In reply to your letter, I will be only too glad to give all the information possible on the French system. As far as ground training is concerned, I don't think you will be able to learn much from the French. In fact from what I have seen at Netheravon there is no doubt in my mind that the French could learn some tips from there themselves; I have introduced some of the things that I have seen 'up on the hill' into the ground training here at Lille, but the jumping, that is a different kettle of fish:

Number of static line jumps, 15 and two dummy pulls = 17 static line jumps as a minimum, some students could of course be able to free fall long before their 17th jump, but that is the law, they must wait. The average is somewhere round about 25 static line, there is the odd one or two who have to do **60** or **70** static line jumps.

So after having completed the static line jumps on to clear and pulls:

- 2 clear and pulls of not more than TWO seconds
- 2 clear and pulls of not more than THREE seconds
- 3 x 5 seconds delays
- 3 x 8 seconds delays
- 3 x 10 seconds delays
- 2 or 3 x 12 seconds delays
- 2 or 3 x 15 seconds delays
- 5 x 20 seconds delays

On all these jumps the student must be stable and on heading with the aircraft. No altimeters or stop watch allowed, the student must count; the error permitted is 5/10 of a second over or 5/10 of a second under (that is up to 10 second delays). Stability and counting are closely watched during these jumps and the instructors have no hesitation about putting an offending student back on S/L. It is only when the student has completed the 20 seconds delays, that he can start to work: 180 degree turns then 360; this leads to the spin test on 30 or 40 seconds delays, this usually takes about 90 jumps for the average students to pass. From then on he can do more or less what he wants, apart from relative work; to do relative he must pass all his tests, tracking, back loops, forward loops, barrel rolls, unstable exits, 10 seconds on his back on heading.

Some of the experienced jumpers have never used instruments. Also, during the static line jumps, when the student has done, say six or seven, he (or she) is told that during the next descent he must deploy his reserve (regardless of the fact that he has a flat circular or steerable main).

It is to be noted that in 1970 the minimum number of static line jumps will be reduced to ten.

BOOK REVIEW

"SPORT PARACHUTING"

by Charles Shea-Simonds

Apart from the abysmal lack of photographs of me in it, this is one of the finest books on sport parachuting that I have had the pleasure to read.

Beginning as it does with a very true to life description of the feelings of a student on the first jump, which nicely sets the scene, the book then describes accurately and in detail, the recommended training schedules that a student should follow as he or she progresses through a sport parachuting career. The lucid descriptions of the why and wherefore of training, accompanied by very good line illustrations and photographs make this book a 'must' for any student to read and reinforce the instruction they would receive from an instructor.

However, this attention to the basics of sport parachuting should not deter the more advanced jumper from the purchase of this book which carries on past basic and intermediate progression to deal with the more advanced realms of the sport such as competition and relative work. The author really comes into his own when discussing relative work and air to air photography, being one of the acknowledged experts in these closely related fields.

Charles says in his preface that the book "is designed as a handbook for the newcomer to the sport". I think he sells the book short. It is a worthwhile addition to any parachutists library.

P. W. Sherman



MASTERS OF THE SKY

is a film capturing man's highest sense of joy and accomplishment in skydiving today — "relative work". Swarms of jumpers exit en masse from their lofty birds miles above the earth, enjoying minutes upon minutes of free-fall, maneuvering freely in 3-dimensions, building world-record stars and formations. Witness for yourself man expanding his universe, forming the world's first 12-man "snowflake" and the world's first 16 and 18-man "stars". Watch him being towed on a rope behind an airplane like a glider; watch him jump in snow, over water, and land in trees. **MASTERS OF THE SKY** is poetry and grandeur; it is the most comprehensive and contemporary film on jumping today.

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- **GOLD MEDAL— SPORTS**

Atlanta International Film Festival

- **CINE GOLDEN EAGLE**

Council on International Nontheatrical Events

- **CHRIS STATUETTE— EDUCATION**

Columbus Film Festival

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is filmed and produced by Carl Boenish; original music by Michael Lloyd; 16-mm color/sound; 14 minutes; available for purchase (\$185) and rental (\$15).

MASTERS OF THE SKY

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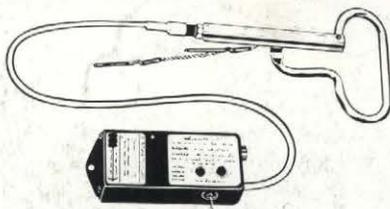
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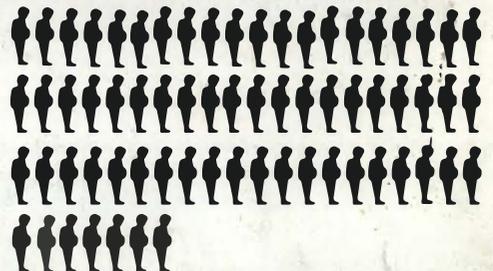
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