

THE

FEBRUARY 1984

SPORT PARACHUTIST



THE JOURNAL OF THE BRITISH PARACHUTE ASSOCIATION



INTEGRATED DESIGN

A PRIME REASON TO BUY A PRIMO RIG PARA-FLITE'S SWIFT SYSTEM™



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DIARY OF EVENTS

- JANUARY 6 - BPA Dinner Dance, Leicester.
 JANUARY 7 - Instructors Convention/AGM, Leicester.
 JANUARY 12-14 - Para-Ski Competition, Wagrain, Austria.
 JANUARY 21-22 - Para-Ski Competition, Courcheral, France.
 JAN 30 - FEB 3 - Riggers Course, Ipswich.
 FEBRUARY 2-5 - Para-Ski Competition, Bad Kleinkirchheim, Austria.
 FEBRUARY 6-10 - PI Course 1-84, Weston on the Green.
 FEBRUARY 10-12 - Judges Seminar, Netheravon.
 FEBRUARY 13-17 - Exam 1-84, Weston on the Green.
 FEBRUARY 17-19 - Para-Ski Competition, Bad Wiesse - West Germany.
 MARCH 2-4 - Para-Ski Competition, Chateaur D'Oex, Australia.
 MARCH 9-11 - French Para-Ski Championship, France.
 MARCH 16-18 - Para-Ski Competition, Darmuls, Austria.
 APRIL 21-23 - Fun Meet, Netheravon.
 MAY 5-7 - Scottish Nationals 1984 with 12th & 13th being retained should weather prove unfavourable.
 MAY 5-7 - Classics Meet (FAI Rules), Netheravon.
 MAY 5-7 - Invitational Trac Meet, Sibson.
 MAY 7-11 - PI Course 2-84, Headcorn.
 MAY 12-20 - RW Seminar, Sibson.
 MAY 14-18 - Exam Course 2-84, Headcorn.
 MAY 26-28 - RW Meet (FAI Rules), Weston on the Green.
 JUNE 2-3 - Police Accuracy Meet, Sibson.
 JUNE 9-10 - Accuracy Meet (FAI Rules), Cark.
 JUNE 9-17 - RW Seminar, Sibson.
 JUNE 23 - JULY 8 - BPA National Championships, Venue not yet decided.
 JULY 14-22 - RW Seminar, Sibson.
 JULY 13/14/15 - DUCK END MEET
 JULY 18-28 - RAPA Championships, Bad Lippspringe.
 AUGUST 6-10 - PI Course 3-84, Cark.
 AUGUST 11-19 - RW Seminar, Sibson.
 AUGUST 13-17 - Exam Course 3-84, Cark.
 AUGUST 18-30 - Army Championships, Netheravon.
 AUG 22 - SEPT 2 - World Championships (Classics), Vichy, France.
 AUGUST 25-27 Invitational Trac Meet, Sibson.
 SEPTEMBER 1-3 - 12 Way RW Competition, Weston on the Green.
 NOVEMBER 5-9 - PI Course 4-84, Venue not yet decided.
 NOVEMBER 12-16 - Exam Course 4-84, Venue not yet decided.

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THE SPORT PARACHUTIST

Vol. 20
No. 1
Feb.
1984

The Journal of the
BRITISH PARACHUTE
ASSOCIATION
47 Vaughan Way
Leicester LE1 4SG
Tel. (0533) 59778/59635

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Affiliated to the Fédération Aéronautique
Internationale through the Royal Aero Club of
the United Kingdom.

Editor's Note
The views of contributors to 'The Sport Parachutist'
are not necessarily those of the Editor, or of the
British Parachute Association, and no liability is
accepted for same.

EDITORIAL

Because of space shortage in this magazine the second part of the feature "Jump Camera" is postponed until the April issue.

Copy dates for issues during 1984 are as follows:

- April no later than March 14th
- June no later than May 14th
- August no later than July 16th
- October no later than September 17th
- December no later than November 12th

Allow one week for copy and photographs to be forwarded from the BPA office. Please send a stamped addressed envelope with any material required to be returned.

Dave Waterman



FRONT COVER PICTURE

Graham Copstake reaching at Netheravon, judge John Laing having taken defensive action.

Dave Waterman

THE DROP MAN THE DA



"EXCUSE ME MISS,
IS THIS MAN BOTHERING YOU?"

AFF UPDATE

Approximately 775 students were trained via the Accelerated Freefall programme in the USA in 1983. 325 of the total were first jump students. A total of 3,575 AFF jumps were made. On 110 of them the Jumpmaster pulled the students ripcord. There were 36 minor injuries, all from landings.

224 students graduated from the course while 244 stopped before graduation, the rest are still in the programme.

A delegation of jumpers from Denmark have just visited the USA. Denmark intend to introduce their own AFF programme this year. The Drop Zone on Texel in Holland also intend to introduce AFF this April.

The French Parachute Federation introduced the AFF programme last year under the guidance of Jack Gregory, a USPA qualified AFF Instructor.

More than 350 jumpers who registered for the 15th annual Turkey Meet at Zephyrhills, FL Nov. 19-27 made a total of 3,946 jumps during their stay. One of the most popular meets around (the 1976 meet attracted 102 10-way teams), this year's version attracted 12 8-way teams, 12 10-way teams, six 16-way teams and four 20-way teams. The Golden Knights took first place in 8-way and teamed up with eight civilians to win in 16-way as well; the Freak Brothers of Sandwich, IL free flew to victory in the 10-way event and also provided the nucleus of the winning 20-way team. Meanwhile, Perris Valley's traditional Thanksgiving Boogie was marred by the temporary loss of the DZ's Twin Otter. The pilot of the aircraft aborted a take-off on Wednesday, Nov. 23 and the nose gear was damaged when the plane skidded off the end of the runway into the mud. No one was injured.

Despite the aircraft problems, a total of 2,250 jumps were made during the nine-day period.

The U.S. National Skydiving Team took home gold and silver medals and a world record from the Fifth World Championships of Relative Work in Sun City, South Africa Dec. 5-19. Visions stampeded five other 8-way teams with 107 points. A sub-group of the 8-way team finished second in 4-way with 108 points to the Swiss' 115. (The U.S. National Champion 4-way team, Army Parachute Team Gold, was unable to attend for political reasons). The 8-way team also set a world record, according to a telex received from team member Mike Parnell, by completing 17 points in only 47 seconds on set sequence two.

RIGGERS AND JUDGES COURSES

The BPA council has agreed to pay an allowance of £10 per person to those attending future Rigging or Judging Courses. This allowance is currently available to potential Instructors on P.I. courses.

RAM AIR QUALIFICATIONS

After the presentation of a paper by Mathew Mortlock and Lyn George of London Skydiving Centre, the STC have decided to reduce the qualifications needed to jump Ram-Air canopies down from Category 9 to Category 8. A minimum of five tandem system jumps and CCI's recommendation is also required.

USPA Headquarters has received reports that some foreign jumpers visiting this country are sometimes allowed to jump gear that is not approved under the FAA's TSO (Technical Standard Order). U.S. law requires that all sport parachute jumps in this country be made with gear that is TSO approved. Failure to comply can result in fines and penalties to pilots and jumpers.

ADVANCED INSTRUCTORS

After a long survey the STC has increased the qualifications to become an Advanced Instructor. An Approved Instructor must now have had his/her rating for at least THREE years, as opposed to two which was the old qualifications.

CHINA RECORD

The FAI (Federation Aeronautique International) have just issued a CRW record to China. The record is for CRW rotation, where they did 22 points in four minutes. The previous record was held by Hungary with 5 points, although several teams have beaten this score over the last 2 years.

The People's Republic of China entered its style and accuracy champs for the first time in an international event called the World Cup of Parachuting Champions in Siena, Italy.

Two Chinese women (named Rongrong and Qing J.) finished first and fourth respectively in the feminine absolute champion division and another Chinese jumper (named Zhelin) was fifth in men's overall. There was no information available on the total number of competitors or the total number of countries who sent national champions to Italy to participate.

Previously, the People's Republic of China had fielded only relative work teams in international competition.

SWISS RW RECORD

The Swiss Relative Workers recently built a 32-way cluster formation at the airport of Triengen in Switzerland. The dive was organised by Raymond Gimmi of the World Champion 4-way team, 'Blue Magic' and the aircraft used were 4 Pilatus Turbo Porters.

Mal



"IT'S ALRIGHT THEM
TAKING THE MICKEY,
BUT I'VE NOT SPOTTED
FROM FOURTEEN
GRAND BEFORE!"

THE DROP MAN

MORE RECORDS

The record for the largest all female free fall formation was broken on the 14th August 1983 in the USA. The new record is now 32.

A new speed 8-stack record was set in Oklahoma last year. The American jumpers involved built the stack in 56.83 seconds.

Both the above records have been recognised by the FAI.

PILOTS COMMITTEE

Should anyone feel that they could help on the pilots committee or care to attend the meetings, please contact Mr John Ball, 60 The Crescent, Andover, Hants.

A CUTTING FROM THE DAILY TELEGRAPH

I hope the American publishers managed to insert their erratum slip into every copy of "Easy Sky Diving". It reads: "On page 8, line 7, the words 'state zip code' should have read 'pull rip cord'."



"NOW, THAT IS WHAT I CALL
DEPLOYING A RESERVE
WITH A SENSE OF URGENCY!"



CONGRATS BRIAN

Congrats are in order to **Brian Dyas** for being the first Brit to get an AFF instructor rating from the USPA. Brian, who recently returned from California, hopes this year to introduce AFF over here. With co-operation from STC and one of our major centres.

COUNCIL APPOINTMENTS

At their inaugural meeting, immediately following the AGM, the elected BPA council for 1984, designated the following posts:

BPA Chairman
BPA Vice Chairman
STC Chairman
Treasurer
Competition Committee Chairman
Forward Planning Committee Chairman
Club Representative
CIP Delegate
Alternate CIP Delegate

Jim Croker
Lofty Thomas
Jim Sharples
Peter Ritchie
Sean Lambe
Danny Hennessy
Jane Watts
Charlie Shea Simonds
John Hitchen



Ex-Peterborough pilot and instructor Nick Cullum and new wife Connie married last year in London have now returned to Aussie but will return soon for good.

A picture especially for Ms R.B.W. Howells (see corres.) Pictured at the Hong Kong Club are Karena Andrews (with new instructor rating), Rosalind Green on her first jump, Sam Brewster from the UK on her first Hong Kong jump, and Sue Lawrence on her second jump.

JUMP PILOT MANUAL

Veteran Jump Pilot, **Norman Meyers**, has produced a comprehensive manual on all aspects of flying parachutists.

The book includes, Pre-flight Checks, Loading, Weight and Balance, Climbout, Streamer Dropping, Jump Runs, Descent, Landing, Emergencies, Flying for Competitions, Demos and Night Jumps. The emphasis is mostly on single engine Cessna types.

The manual is published in Canada for the C.S.P.A. and can be obtained from the 'Skydiving Book Service', Box 189 Deltona, Florida 32725 USA.

RIGGING MANUAL

Tony Knight of the East Coast Para Centre has produced an excellent manual on Rigging. When finalised it will be incorporated in the BPA Instructors Manual.

BPA

Clubs & Centres

BPA Club Approval is granted to BPA Affiliated Clubs who have attained a high minimum standard of staff, facilities and equipment as laid down by BPA. They are subject to inspection by BPA every 2 years.

BPA Club Affiliation is granted to those clubs who have a minimum amount of equipment as laid down by BPA. All operations are strictly in accordance with BPA Regulations.

BPA Approved Club	**
BPA Affiliated Club	*
Aircraft — single engine	±
Aircraft — twin engine	±
Full Time	FT
Weekend	WE
Overnight accommodation on DZ	=
B.B. nearby	BB
Restaurant facilities on DZ	×
Tea & snacks on DZ	□
Basic Student Course	BS
Kit hire student	KHS
Kit hire freefall	KHFF
Relative work instruction available	RW
CRW instruction available	CRW
Accuracy pit on DZ	∅
Camping on DZ	∆
Washing and toilets on DZ	WC
Non-members welcome	NM

British Skysports

Bridlington Aerodrome, Bridlington, Yorkshire.
Chief Instructor (at club address)
Tel: (0262) 77367
* ± FT = BB × □ BS KS KF RW CRW ∅ ∆ WC NM

Headcorn Parachute Club

Headcorn Airfield, Ashford, Kent.
Tel: Headcorn 890862
The Secretary (at club address)
** ± ++ BS RW KS KF ∅ = ∆ BB × □ WC NM FT

Hereford Parachute Centre

Shobdon Aerodrome, Leominster, Hereford.
Tel: Kingstand 551
Chief Instructor (at club address)
● ± FT = BB × □ BB KS KF RW ∅ CRW ∆ WC NM

Peterborough Parachute Centre

Sibson Airfield, Wansford, Peterborough.
W.J. Meacock (at club address)
Tel: Elton 490
● ± ± BS RW KS KF no charge ∅ = ∆ BB × □ WC NM FT

Ipswich Parachute Centre

Ipswich Airport, Nacton Road, Ipswich, IP3 9QF.
A.G. Knight Tel: (0473) 76547
● ± ± BS RW CRW KS KF = ∆ BB × □ WC NM FT

Ashford Parachute Centre

Ashford airport, Lympe, Kent.
Tel: Hythe 60816
Club Secretary (at club address)
● ± BS RW KS KF ∅ ∆ BB □ WC NM FT

East Coast Parachute Centre

8 Burns Crescent, Chelmsford, CM2 0TS, Essex.
● FT BS KHS KHFF NM

Thrupton Parachute Club

Thrupton Airfield, Nr Andover, Hants.
Tel: Weyhill (026 477) 2124
contact: Dennis Woods (at club address).
● ± FT = BB × □ BS KS KF RW CRW ∅ ∆ WC NM

British Parachute Schools

Langar Airfield, Langar, Notts.
Chief Instructor (at club address).
Tel: 0949 60878
++ FT BB □ BS KS KF RW CRW ∅ ∆ WC NM

Montford Bridge Para Centre

The Airfield, Montford Bridge, Shrewsbury. Tel: (0473) 850953
● ± FT = BB □ BS KS KF RW CRW ∆ WC NM

Lincoln Parachute Centre

Sturgate Aerodrome, Upton, Nr. Gainsborough, Lincs DN21 5PA.
Tel: Corringham (042 783) 620
(Anaphone) Secretary (at centre address)
∅ ● ± FT = BB □ BS KS KF RW ∆ WC NM

Cornwall Parachute Centre

Fran's Ranch, St. Meryn Airfield, St. Ervan, Wadebridge, Cornwall.
Tel: Rumford 691.
J. Fisher, Trethoway Hotel, Port Issac, Cornwall. Tel: Port Isaac 214
● ± FT = BB × □ BS KS RW CRW ∆ WC NM

Midland Parachute Centre

Long Marston Airfield, Nr. Stratford-upon-Avon, Warks.
Tel: Stratford-upon-Avon 297959
Dave Deakin, Tilton Cottage, Stourport-on-Severn, Worcs.
Tel: Stourport-on-Severn 5954
● ± BS RW CRW KS KF ∅ = ∆ BB □ WC NM

Black Knights Parachute Centre

Patty's Farm, Cockerham, Nr Lancaster. R. Marsden, Primrose Hill Farm, Bilsborrow, Nr. Preston, Lancs.
Tel: Brock 40330
+ WE BB □ BS KHS KHFF RW CRW WC NM

British Prison Officers Para. Club

HMP Box 369, Jebb Avenue, London, SW2.
● see Headcorn for details.

Cambridge University Free Fall Club

D. Stenning, 30 Green End Road, Cambridge CB4 1RY.
● no more details.

Shrewsbury Skydiving Centre

The Airfield, Montford Bridge, Shrewsbury. Tel: (0743) 850622
Leeds/Bradford Freefall Club
Topcliffe Aerodrome, Topcliffe, Nr. Thirsk, North Yorkshire.
Sec: Mike Wood, 12 Whincooper Gardens, Leeds 12, Yorks. Tel: 853099/632851
● WE BB BS KHS KHFF RW WC NM

Shetland Sport Parachute Club

Tingwall Airstrip, Tingwall, Shetland.
Sec: Martin Fraser, 185 Sandveien, Lerwick, Shetland. Tel: (0595) 5880

Duck End Parachute Group

Rectory Farm, Abbotsley, Hunts. G. Lilly, 11 Parkfield Close, Fairfield Crescent, Edgware, Middlesex.
● ± ∅ = ∆
They may not have much but they are cheap!

Halfpenny Green Para. Centre Ltd.

Halfpenny Green Airport, Bobbington, near Stourbridge, West Midlands.
Tel: Bobbington 293
● ± FT BB □ × BS KHS KHFF RW CRW WC NM

The Glenrothes School of Parachuting

Glenrothes, Fife. Tel: (0592) 759204
● ± BS RW CRW KS KF ∅ BB □ WC NM

Golden Lions FFT

Glenrothes (see above)

Parachutists Over Phorty Society

Top Pop 'Lofty' Thomas
Hon. Sec/Treas. Charlie Bell
40 Claremont Drive, Ormskirk, Lancs.
L39 4SP. Tel: 0695 - 73321

Scottish Parachute Club

c/o Strathallan Airfield (ZLL) near Auchterarder, Perthshire.
Tel: 0764 62572
● ± BS RW KS KF ∅ BB □ WC NM

Cheshire Parachute Club

P. Evans, Durham Grange, Delamer Rd, Altrincham, Cheshire. Tel: 061 928 6918
● see Shrewsbury Skydiving Centre for details.

Paraclan II Sport Parachute Club

Kinnell Airfield, c/o Stuart Charleton, 15 Cameron Avenue, Bridge of Don, Aberdeen.
Tel: 0224-703412 (H) 0224-574588 (B)
WE BB □ BS KHS KHFF RW NM

Blackpool Parachute Centre

Blackpool Airport, Blackpool FY4 2QS
Tel: 0253 41871
● ± FT = BB × □ BS KS KF RW ∅ CRW ∆ WC NM

Wild Geese Sky-Diving School

27 Drumeil Road, Aghadowey, Coleraine, Co. Londonderry.
Tel: Aghadowey (026 585) 669
● ± BB × □ BS KHS KHFF

Skybird Parachute School

Ted Lewington, The Lodge, Arborfield Court, Arborfield, Reading, Berks. Tel: 0734 760584

South Cotswold Parachute Club

Badminton, Avon.
DZ Tel: Badminton 486
Miss C. King, 23 West Mall, Clifton, Bristol 8.

Sunderland Parachute Centre

Sunderland Airport, Sunderland, Tyne & Wear.
W.J. Barnes (at club address)
Tel: Boldon 367530
● ± ± BS RW CRW KS KF ∅ × □ WC NM ∆ = BB

Manchester Free Fall Club

Tilstock DZ, Twenlows Hall Farm, Whitchurch, Shropshire.
N. Law, 9 St. Andrews Road, Stretford, Manchester M32 9JE. Tel. 061-865 3912
● ± BS RW KS KF BB NM

Martlesham Parachute Club

Mrs L. Bennett, Currant Cottage, Dyke, Woodbridge, Suffolk, IP12 2RX
Tel: Elyke 365
● ± WC BS RW CRW ∅ KS KF = BB WC NM ∆

North West Para Centre

Cark Airfield, Flookburgh, Nr Grange-over-Sands, Lancs. Tel: 044853 672
J.D. Prince, 21 The Coppice, Ingol, Preston, Lancs. PR2 3OL.
Tel: Preston 720848
+ BS RW CRW KS KF ∅ = ∆ BB □ WC NM

Merlin Parachute Club

Topcliffe Airfield, Nr Thirsk N. Yorks.
Tel: Lt. Col. S.D. Lambe
0632 844789 office 367762 home
● WE BB BS KHS KHFF RW WC NM

Manchester Skydivers

(see British Skysports)
Brian Greenwood, 33 New Street, New Mills, Stockport. Tel: 0663 45487

TPA Parachute Centre

Chetwynd Airfield and Sieghford Airfield, Staffs. G. Evans, Springbank, Overhouses Green Arms Road, Turton, Nr Bolton.
Tel: Bolton 852295
● ± BS RW KS KF ∆ BB □ WC NM

Woodvale Airfield

Nr Formby, Lancs.
Roy Harrison, 107 North Rd, St. Helens, Merseyside. Tel: St. Helens 35342
● BS WC + RW KF □ BB NM

Swansea Parachute Club

Swansea Airport, Fairwood Common, Swansea, West Glamorgan SA2 7JU.
Tel: 0792 296464
● ± FT BB × BS KHS KHFF RW CRW WC NM

Border Parachute Centre

Brunton Aerodrome, Chathill, 3 Bruton Farm Cottages, Embleton Alnwick, Northumberland NE66 3HQ.
Tel: (066 589) 360
● ± WE BB □ BS KHS KHFF RW NM

Scottish Sport Parachute Assoc.

M.H. Rennie, c/o 5 Bonnington Road Lane, Edinburgh EH6 5BP.
Tel: 031-554 8121 (B) 031-669 1872 (H)
● no more details.

The London Skydiving Centre

The Secretary, London Skydiving Airfield, Pampisford, Cambs. Tel: (0223) 834613
● ± ± FT = BB × □ BS KHS RW CRW ∅ ∆ WC NM

Aberdeen University
Aberystwyth Coll. Univ. of N. Wales
Aston University
Bath University
Birmingham University
Bristol Polytechnic
Bristol University
Brunel University
Cambridge University
Chelsea Coll. London
Dundee University
Durham University
Edinburgh University
Exeter University
Goldsmith's Coll. London
Hadlow Agric. Coll.
Harper Adams Agric. Coll.
Hull University
King's College, London
Lancaster Polytechnic
Lancaster University
Leeds Polytechnic
Leeds University
Leicester Polytechnic
Leicester University
Liverpool University
London Coll. of Printing
London Hosp. Med. Sch.
Loughborough University
Manchester Polytechnic
Manchester University
N.E. London Poly.
Newcastle Polytechnic
Newcastle University
Nottingham University
Oxford University
Plymouth Poly.
Polytechnic of Wales
Portsmouth Polytechnic
Queen Mary Coll. London
RMCS Shrivernham
Salford University
Sheffield University
Southampton University
St. Andrew's University
Stirling University
Strathclyde University
Sunderland Polytechnic
Sussex University
Trent Polytechnic
University Coll. Cardiff
University Coll. N. Wales
UJMS
UJWST
Warwick University
Westfield College, London
Wolverhampton Polytechnic
York University

SERVICE ASSOCIATION & CLUBS

The Golden Lions Free Fall Team

Fife Airport, Glenrothes Airfield, Glenrothes, Fife, Scotland.
Tel: (0592) 759802

Other Service affiliated Clubs:

REME Parachute Club
The Ravens Para Sport Free Fall Club
The Parachute Regiment Free Fall Team (Red Devils)
Royal Artillery Parachute Club
The Light Infantry Parachute Display Team (Flying Bugles)
The Royal Green Jackets Display Team Guards Free Fall Team

Army Parachute Association

Commandant, JSPC Airfield Camp, Netheravon, Salisbury, Wiltshire SP4 9SF
Tel: Bulford Camp (09803) 3372
Ext. 277/245
● ± ± WE = BB □ BS KS KF RW CRW ∅ ∆ WC NM

Rhine Army Parachute Assoc.

The Commandant, RAPA Centre, STC Sennelager, BFPO 16
± ± BS RW CRW KS KF ∅ ∆ BB × WC NM ●

Cyprus Joint Services Adventurous Training Camp (CJSATC)

Chief Instructor (CCSPC), CJSATC Pergamos Camp, BFPO 58
● ± BS RW CRW KS KF ∅ = BB NM

RAF Sport Parachute Association

Hon. Sec. RAFSPA, RAF Brize Norton, Oxon. DZ, Weston on the Green.
Tel: Middleton Storey 343
± ± RW CRW KS KF ∅ × □ ∆ WC

Royal Navy & Royal Marines Sport Parachute Association

The Secretary, RN & RMSPA Commando Training Centre RM, Lymington, Exeter, Devon EX8 5AR.
Tel: Topsham 3781 Ext. 491 or at Club, Luppitt 697
+ WE = BB × □ KS KF RW CRW ∅ ∆ WC NM ●

Hong Kong Parachute Club

CCI, JSPC (HK), Borneo Lines, Sek Kong, BFPO 1.
● WE □ BS KS KF RW ∅ WC NM

Royal Corps of Transport (RCT) Parachute Club (Silver Stars Para Team)

Aixmghur Barracks, Colerne, Chippenham, Wiltshire SN14 8QY.
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+ WE BB □ BS KHS KHFF RW CRW WC NM

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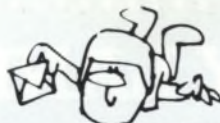
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CORRESPONDENCE

ASK THE COACH

I have recently decided that I would very much like to do some parachuting in either California or Florida some time in January or February, but I do not know how to go about organising such a holiday. I am currently doing 10 second delays and I have done 23 jumps.

I would therefore be very grateful if you could help me with some information. Firstly I need to know whether it is possible for me to jump in America as I am only on Category 5 so far, then I would like to know about holidays, i.e. are there any package holidays available or any clubs in America that provide accommodation, also do you know roughly how much it costs to do a jump in the states. Finally if I did 20 or 30 jumps, would they count on the BPA Category system when I come back or would I have to go back to where I left off.

I know lots of people do go to America to do parachuting so I am sure you or someone from the BPA will be able to help.

S.C. FRANKLIN

HERE COMES THE JUDGE

The views of **Jim Keery** (RW team leader, Canada Cup 1983) make repetitive reading in that he states an indisputable fact, that in RW all formations must be shown to the judges. Busts, of which there were apparently a high number at the recent Canada Cup (Boogie?), result from the competitors not showing to the judges (in two dimension video) the third dimensional movement "they apparently made". If the rule states "separation must be shown" why should the benefit of the doubt "be given to the jumpers"?

He then proceeds to state the judges had the opportunity to judge a "World Championship" for the first time, in slow motion. No RW World Championships have used slow motion as a judging aid to date.

Why, instead of sending teams to more competitions, doesn't the Council send up-and-coming trainee judges to training camps to gain experience of judging? Remember, the Relative Work Sub Committee which writes the rules for FAI competitions is comprised of, first and

LETTERS on any parachuting topic are welcome and should be sent to:

The Editor, *Sport Parachutist*, c/o BPA, Kimberley House, Vaughan Way, Leicester, LE1 4SG.

foremost, jumpers and not judges.

However, in finishing please pass my congratulations to the teams for their success in the Canada Cup or "unofficial" World Meet.

MARTIN H RENNIE

FLY RAM AIR BEFORE CAT 9?

This article is aimed at all of the students who are fed up with standing around a DZ waiting for the winds to drop, whilst watching with envy the experienced jumpers throwing their ram air canopies around the sky. Did you know that you could fly a ram air canopy before you attain Cat 9? I did! and after only 12 jumps.

Read on before you write to complain to the BPA and get my CCI's Licence revoked, it is all quite legal and above board.

At Thruxton Parachute Club (near Andover for those who have forgotten) we have an excellent Parasending club with a full time instructor plus two potential instructors, and what we have to offer, is a wing conversion course for student parachutists who are eventually hoping to progress on to Ram Air canopies. Using this method has many advantages some of which are:

- 1) An in-depth introduction training to the use of a Ram Air Parachute.
- 2) Being able to fly in higher wind limits (18 m.p.h.). This means that on those windy days when you are unable to jump you can use your time flying a wing.
- 3) As we operate on the same drop zone as the parachute club when the winds do eventually drop you are already on site, ready to make your progression jumps.
- 4) Although the wing conversion course is basically designed for the student parachutist, it is also an excellent method of accuracy training for experienced jumpers, mainly due to the low cost of each flight and the amount of flights possible in a short space of time, heights of 1500-2000ft are easily attained.

If you feel that you might be interested in learning to fly a high performance Ram Air canopy before

attaining Cat 9 then give us a ring on 026-477-2124 and have a chat with Andy or Ian.

V.E. DEAN C5199

Trainee Instructor BAPC C49/1630
Thrupton

THROW OUT

I have just been re-reading some back issues of SP and have come across an article by **Rob Colpus** entitled 'Throw-out, a Potential Horseshoe?' After thinking about it for a time I felt I should write to you to ask one question. Why doesn't somebody make a rig with a throw-away stored in the same place as a pull-out, in the main container? Surely this would prevent a horseshoe mal for the same reasons which prevent a pull-out giving a horseshoe mal, because of premature pack opening? Also this would be the ideal compromise for those skydivers who prefer to use a throw-away system, without the worry of a possible horseshoe malfunction. I realise that this would put the throw-away toggle out of sight, in about the same place as a pull-out dildo, but as Mr. Colpus says, most leg strap throw-aways can't be seen either.

I have only been in the sport for just under a year and there is probably a very good reason why this cannot be done which I am not aware of, if so please excuse my ignorance!! I am enclosing a crude diagram showing my system, which may help to show more clearly what I am trying to say.

Whilst I am at it, why do I have to jump a PC in a front and back system with 1½ slot kapewells? To cut-away in the event of a malfunction and deploy my reserve canopy I have to make six separate actions. Would not jumping a tandem system with single point release and ripcords for main end reserve be a safer system as it would reduce the actions needed to cut-away and deploy my reserve to two simple actions. I appreciate that the reasons for jumping front and back systems is to keep the changes to a students kit to a minimum so as not to rush him/her. Jumping a tandem cannot be too different to a front and back, and for high performance canopy descents you must cut-away, so why not cut-

away in two actions, which takes six on a front and back system. I agree the jumper has two changes to cope with, a tandem and having to cut-away, but to me it would seem safer. Well you ask for letters and comments, so these are my thoughts.

Can I just say thankyou to the Peterborough Parachute Centre especially, **John, Ronnie, Dave Morris Alan, Derk and Barry**, for introducing me to a truly exhilarating sport, which I dearly love, and hope to keep jumping for many years to come.

Be not or be cool, but be here and be safe.

GEORGE PILKINGTON

SQUARE RIGGERS

Just thought that in this bi-monthly note I could take advantage of the SP's circulation and save on Christmas cards, by wishing all members of RAFSPA a safe time and dare I say it 'Blue Skies' over our shutdown period. Ok...Mrs. Spud I've said something positive. But now to the serious point.

With the advent of the Ram Air and the sluggish acceptance of its use in a reserve situation, I find that although jumpers pack their own square reserves, there is no qualified rigger, (a) to pack, (b) to oversee such a packing or (c) at least give advice in the packing of such. It is common practice to pack as the manual states, or as the jumper sees fit, nevertheless someone may inadvertently be packing in a second mal. I cannot see square reserves going away, their use will eventually become common practice, however for those already possessing such it must be a niggling worry.

We have riggers within the association, would it not be worth getting such a rigger trained stateside, coming back and offering his services to the general club membership? With the BPA reaping a percentage. Or some enterprising rigger doing so of his own accord.

Once again best wishes to all, play safe.

PAUL GRAY D4913

THROW OUT AGAIN

I was just going over my back issues of SP (again!), and was reading the article by **Rob Colpus** - 'Throwout a Potential Horseshoe' in the June '83

issue, when a thought suddenly struck me. A horseshoe is obviously about the most undesirable mal you can get, and there are certain steps you can take before jumping to prevent it. However, it is of no comfort to the jumper concerned to know he should have checked his velcro and that the pack was too slack when he has a bag of wooling above his head, and can't get the pilot chute out. It is all very well saying cut the bridle line, cut-away etc. but suppose - just suppose for some reason you are not carrying a knife (I always do), or even worse, in the jumble and panic you drop your knife - only too possible in that kind of situation. Then you are left with the same situation as the jumper over Weston, which tragically resulted in his death.

My idea sounds too simple not to have been thought of before, but I thought it might be worth a mention. (I don't even know if I'm writing to the right person, but as I read the article in SP, and had the idea while doing so, I would write to you). What if the pilot chute pocket were able to be opened up completely to allow extraction of the pilot chute. The pocket could have a split along its length, fastened either by velcro, or even some kind of protected zipper device - protected on the inside that is, to prevent the pilot chute material snagging on the zipper. Then it would be a much simpler task than reaching or fumbling for a knife, and using valuable seconds to cut the line, cut-away and deploy the reserve. Activation of the zipper, or velcro tab would probably take about one to two seconds, with the possible result of still getting a perfectly good canopy above you. At worst, you may still have to cut-away and deploy your reserve, but it would still have taken many fewer seconds just to open the pilot chute pocket.

The tab would need to be positioned at the back of the pocket, with a forward pull to open it, because if it was at the front and pulled back, you could end up with your arm behind you, and if the pilot chute came straight out then it could result in the bridle line entangling round your arm. After pulling the tab forward and opening the pocket, it would be a simple case of just grabbing the pilot chute and throwing it away behind you as per normal - that is if the sudden release of the pocket didn't cause it to automatically fly away behind you.

As I said it seems too simply an idea not to have already been thought of, or discussed and rejected because of something I haven't considered, but I thought well, you never know, it just might be worth passing on my idea for further consideration by the experts, and it might even turn out for the good, and increase safety in throw-aways for jumpers who prefer them to pull-out systems.

Thanks for listening and if this letter gets published, can I take the opportunity to thank all the staff and jumpers who have helped me over the past few months at Lippspringe by introducing me to, encouraging me in and accepting me as part of a really great club, and what must be quite simply the greatest sport ever. Take it easy.

S. WAGSTAFF C5306, HH001

STUDENTS AND THE CATEGORY SYSTEM

Since first taking up sport parachuting some four months ago I have read with interest the many articles in Sport Parachutist concerning Student Retention and the Category System. One thing however, has concerned me greatly, I have yet to see a reply from Council or the STC to what have been, in the main, sound and well argued complaints and suggestions. This silence would seem to indicate a lack of willingness or ability on the part of Council/STC to argue their case, or explain why they are unwilling or unable to implement the suggestions put forward by 'their' members. In the hope that I am wrong in my assessment, may I take this opportunity to put forward my ideas on two subjects on which I hold strong views.

Firstly, 'Accelerated Freefall Techniques', hold it! No I am not advocating the abolition of the present Category System, as an Army Officer for the past ten years I am only too well aware of the need for progressive training even if it is a B--s ache. What I am suggesting is allowing a student to make an 'experience' or incentive jump(s) using accelerated freefall techniques. All students feel frustrated at some stage during their training when they can see no light at the end of the tunnel. (I did on my ninth D/P, is it really worth going on?) It is at times like these, that a long dive accompanied by two instructors, would be of immeasurable benefit. In my view such a jump would have considerable effect on the students morale and confidence and would provide him with the incentive to keep going and not to pack up. So, sticking my neck on the block, lets have some reaction to the following suggestion:-

All students be allowed to make up to three 'experience' jumps from 12,000ft using accelerated freefall techniques. These jumps would be in addition to and separate from those required for their progression up the category ladder. Each jump would be subject to the following restrictions:-

- The student must be a BPA member (Third party insurance protection).
- The student must have the authority of his club CCI.
- The student must be accompanied by two instructors who retain a hold on the student throughout the descent.
- The student covers all costs incurred by him and his instructors. (Jump bills).

My second gripe is progression onto ram air canopies. A student must currently complete Cat IX before being allowed to progress to ram air canopies. Why? Cats VII, VIII, and IX are solely interested in a students performance in freefall, no mention is made of canopy control, accuracy, or landings. Surely it is these factors which should determine a students ability to progress onto ram air; so long as he is able to open in a flat table position, his ability to perform back loops and relative work is of no consequence. Freefall work and canopy control are two separate subjects and should not be confused. Allowing

a student to progress to ram air earlier (completion of Cat VI for example) would not impair safety while providing tremendous incentive to students to continue jumping. How many middle category students have wasted weeks sitting on DZs unable to jump because the wind was too strong for their round canopies? A square would have enabled them to continue jumping and progress with their freefall skills unhindered.

Sticking my neck out again I look for comments on the following suggestion:- "Students should be allowed to progress to ram air canopies on completion of Cat VI subject to the following conditions:-"

- Club CCI is satisfied that the student has reached a high standard of round canopy control.
- The student completes an additional three (minimum) 15 sec delays using a tandem round system.
- The student then completes a further three (minimum) 15 sec delays using a ram air system.
- Having been cleared for ram air canopies the student may then continue with Cat VII.

In conclusion I hope these ideas prompt some serious thought, as I believe their implementation can only be of benefit to the sport.

I look forward to constructive comment from the powers that be and readers.

CAPT. N.I.F. APPLETON BPA152856

SEXISM IN S.P.

I started jumping in October and I am already addicted and enthralled with the sport, it has changed my life. I have two children both of whom are straining at the leash to reach the age of sixteen.

Each time I've been to my club I've waited with the usual half hidden apprehension for sexism to rear its ugly head. It never had and after a couple of visits I began to realise there was no sexism in parachuting - well, not in my club anyway. I couldn't believe what I was experiencing, it's the only place I have been with members of the opposite sex where there is no patronising, put-downs and slights to be faced. This is an enormous bonus to me, not only does the sport grip me but I belong as well as being female, a rare if not unique situation for a woman.

Last week I did my fourteenth and first free-fall and yesterday I received through the post by first-ever copy of Sport Parachutist, December 1983 issue. You may (but if you are a male reader you probably won't) imagine my dismay on turning the pages of the BPA Magazine to find sexism between it's covers. The first betrayal to leap out from the page was the T-Shirt add at the bottom of page thirty-six; next I noticed the jokes on pages six and seven all depicting male parachutists (apparently females don't jump). However, there was a stereotype barmaid but she certainly wasn't wearing a jump suit! Then reading further I came across the letter from S.P. Wagstaff where he said, "When your mates are all going to the disco... do without that classy shirt and

trousers you like the look of..." He obviously wasn't visualising a mixed readership while penning that letter. Further correspondence from Rob Ames stated, "However, why not think about conning the missus when she's bored with being dragged along to Z-Hills..." A sexist phrase in itself never mind failing to address the female readers, a pure discourtesy.

I also recall learning that championships are segregated, but not according to experience, licence or even age - just sex which has no bearing on ones' jumping ability. No, even in this modern, exotic, free-flying sport, we must keep the boys from the women, (or the girls from the men).

I want to be included in my magazine (but not in a sexual way); and acknowledged as part of the readership; after all I do belong to the BPA. And I am a parachutist.

R.B.W. HOWELLS

Help!

In answer, all I can say is one-third of the editorial staff is female and the proprietor of the sexist ad. you complained about is a woman, and Filwelz has two cartoons in this issue which feature female parachutists.-

Ed.

JUMP CAMERA

I was interested to read your article on camera jumping in the last issue of SP. I have been a keen camera jumper ever since I discovered that the APA had a helmet mounted OM 1 available for use by half decent skydivers! I used this equipment for the first time during the APA trip to Cyprus in 1977. I discovered that there was a lot more to jumping with a camera than I had first imagined. I could have done with your article then.

Soon after I returned to UK I decided to buy my own equipment and I decided to buy Olympus for a variety of reasons. First of all, I was satisfied that it would produce good quality photographs and it was reliable. The other main factor was that most camera jumpers seemed to have Olympus equipment. This meant that you could swap lenses and even cameras if there was a problem with your own. Our mounting brackets would be the same. I have found this to be useful during the last few years. On two occasions because of mechanical failure I have been able to borrow other peoples cameras. Once during the RAPA meet and once during last years Soest chopper boogie.

The ability to swap lenses has also been handy. At my DZ (Lippspringe) there are half a dozen cameramen all using Olympus kit. This means that I can borrow all sorts of lenses i.e. 16mm, 24mm, 35mm, 35-75mm zoom, 75-100 zoom, 200mm. Some of these zoom lenses I have found ideal for photographing CRW. You can also use two hand held cameras for CRW by borrowing someone elses. Having say, a 35-70mm zoom on one camera and the 75-150mm zoom on the other giving you great flexibility.

Please do not think for a moment that Olympus are giving me a back hander for all this waffle, I just think it may help people decide on the camera that will be best for them.

As far as mounts go, I mount my camera upside down on my helmet. There are a number of advantages to this.

1. You are looking through the viewfinder not a sight and you can therefore see exactly what you are taking.
2. You can check the focus before you exit (focus on the A/C wing tip - that is about the normal range for a small formation).
3. You don't need to buy a search for a sight.
4. You don't need to worry about lining the camera up with the sight.

One big disadvantage could be that your vision is restricted by the top of the camera that houses the viewfinder and prism. However I feel that I have overcome that problem by mounting the camera at an angle. The camera is attached to a bracket similar to the one in your diagram but instead of it being vertical the camera is angled upwards at about 6°. By doing this, the camera does not interfere with my peripheral vision either vertically or horizontally. When I want to take a shot I tilt my head forward to bring the camera to the vertical and then fire away.

On the subject of the electronic release, which is important but often overlooked, I use a release which fits on the back of my fingers rather than the front. This allows you to rear float with ease and also allows me to join a formation if desired. It also prevents the inadvertent operation of the release which costs about 25p every time you do it!

I hope you can find space in the magazine for my thoughts, it may just help the would be photographer to save some time, money and effort.

A.M. GIBSON. LOTT 12

The problem of jumping a camera and using the camera view finder as your sight, is your perspective is wrong. Because you are looking through a wide angle lens, the subject looks further away than it is. I have jumped the very system you are talking about and found it difficult to do R.W. and look through the view finder because of this optical illusion. Focus has never been a problem, if you set the focus at approximately 30ft and use an aperture of say F8 on a 28mm lens everything is in focus from 4ft to infinity. Ed.

BUYER BEWARE

I am writing to the mag for the first time to point out something I noticed recently.

I am at the stage in jumping where I can write all my own lies in my log-book. So I have to buy a square. I have never bothered to buy kit before because I thought I would literally fly through the cat system, but here I am nearly four years on (about to jump a square). So I start looking for kit that was for sale, having toured a few DZs, I found someone keen to sell me some, on close inspection I found the reserve could not be deployed. The housing for reserve cable caused the pins to jam which shocked me to say the

least. I realised there and then that after all the rules and regulations concerning kit, here was potentially dangerous kit for sale right in front of everybody's eyes. Therefore I would like to see all kit for sale on notice boards around the country being checked by the CCI before it is advertised.

PADDY, 87931

10-MAN STAR TEAM

Having read Wil Grut's letter in the last issue of Sport Parachutist, I feel I must clarify one point, not that it matters, but I believe in maintaining true historical facts.

The Hard-Ass Star Team, led by Jim Crocker, were in the true sense of the word, the first British 10-man star team, achieving a 10-man star for the first time in this country at Halfpenny Green on August Bank Holiday Monday 1971.

As Editor Dave, you should recollect that day as you were there with the Chuting Stars.

MIKE BOLTON D875

What Will Grut was referring to when he mentioned "The first British Ten Man Star Team" was the first team to represent Great Britain in a World Meet. That was "The Chuting Stars" who had beaten the "Hard Ass Team" in the first R.W. nationals and competition is where it counts!

THANKS TO RAPA

In August 1983 my girlfriend Uli and I visited the Joint Services Parachute Centre in Bad Lippspringe, West Germany, and home of the Rhine Army Parachute Association, to take a beginners course in skydiving. Uli has already been to Bad Lippspringe last year and is now on Cat. VIII. It was the first time for me and after two weeks I finished with 18 jumps and Cat. VI.

We would now like to say congratulations; you can be really proud to have a training centre like the RAPA. We are enthusiastic about the strict and quick but nevertheless careful education. I think I know what I am talking about as I am engaged in aeronautics as a glider pilot for 13 years and also a short time as an instructor. On coming to Bad Lippspringe I soon learned that the education at RAPA-Centre is governed by a high spirited safety philosophy able to compete with any other section of aviation. The atmosphere on the course was very familiar which made one forget it was a military site, but there was never any doubt that the instructors would not permit the smallest inadvertency. Though there were more than 70 beginners on the course we saw no real injuries and no reserves in the sky.

We would like to thank the BPA and the RAPA for the wonderful days in Bad Lippspringe and for introducing us into the exciting sport of Skydiving by such a great team of instructors. With best wishes for the next year.

ULRIKE WACHS

SKY HIGH IRVIN

The story of a Parachute Pioneer



PETER HEARN

From the Foreword by the late Sir Douglas Bader:

"Everyone connected with aeroplanes, and particularly flying them, will devour this book."

This book tells the story of the origins, manufacture and development of the modern parachute and of the showmen, soldiers and aviators who used it. But above all it is the biography of the most influential figure in the annals of parachuting - 'Sky High' Irvin.

When Leslie Leroy Irvin made his first parachute jump at the age of fifteen the parachute was no more than a simple instrument of daredevilry, used only from balloons. When he died in 1966 the parachute was being used to recover men and their craft from outer space.

Irvin's early love for the sky and concern for the safety of those who entered it drove him to defy all technical and medical advice, and in 1919 he demonstrated that a man could fall free from an aircraft and pull the ripcord of a manually operated 'chute - something never before attempted. The company he founded to manufacture the revolutionary parachute reigned supreme for the next twenty years - and made him a millionaire. But his true reward was in the lives that his invention saved, and the Caterpillar Club - the association of those who owe their lives to Irvin parachutes - is another of his lasting achievements.

His name lives to this day in the multinational firm of Irvin.

About the author

Group Captain Peter Hearn joined the RAF in 1955 as a Physical Education Officer and Parachute Jumping Instructor; he is currently Head of the Physical Education Specialisation. He lives at RAF Abingdon, Oxfordshire. His autobiography, *Parachutist*, was also published by Robert Hale.



NEW ZEALAND CONDOR

New Zealand have made an entry into the Ram Air world with a canopy named the Condor. This 7-cell, manufactured by McLaclan Parachutes utilizes the spanwise construction technique as developed by Para-Flite with their Swift System. Spanwise construction is where the bolts of material and seams run from wingtip to wingtip, instead of from nose to tail.

9 CELL OSPREY

Pioneer Inc. are at present working on the development of a 9-cell version of their Osprey Ram Air. The 7-cell Osprey was released a couple of years ago as competition for Django's Pegasus, but did not prove to be as popular.

CHUTE SHOP CENTARUS

The Centarus piggyback system, originally designed and built by **Troy Loney** in Colorado USA is now to be built by the Chute Shop. The Centarus is said by some to be the forerunner and inspiration for the Vector and other similar designs.

JUMP SHACK STUDENT ROUND

The Jump Shack are currently drop testing a Round Main Canopy intended for student use. The canopy is made from F111 material and is said to have T10 performance, i.e. a slow descent rate.

RAVEN

The Precision Parachute Co. of Dunlop, Tennessee, who up until recently manufactured canopies as a sub-contractor to leading manufacturers, is now in business with their own Ram Air Series.

The canopy they produce is called the Raven and comes in four sizes, from 190 - 282 sq. ft. The company are claiming a standardised descent rate for any weight of jumper. The Raven is of 'I' beam construction with no cascades on the centre 'A' lines and a unique control line configuration.

The most interesting factor concerning this canopy is its price - approximately \$100 cheaper than its rivals and there is no extra charge for size or custom colours.

4 Sizes	Weight of Jumper
190 sq. ft.	121 - 147 lbs.
218 sq. ft.	144 - 175 lbs.
249 sq. ft.	167 - 202 lbs.
282 sq. ft.	190 + lbs.

Rob Colpus

MIRAGE, MIRAGE

Sky Supplies of Florida, have redesigned their Mirage Tandem System.

The overall appearance is practically the same, although the full length Riser Covers have been replaced by smaller ones utilizing snaps rather than velcro. The major modifications have been made internally, in order to improve its opening characteristics.

AAD MOD

SSE Inc. of Pennsauken, USA, manufacturers of the Pin Puller/Sentinel AAD (Automatic Activation Device), are carrying out a modification on all one pin reserve container set-ups. Anybody using this system should contact SSE immediately.

PARA FLITE REDUCTIONS

Para-Flite have reduced the prices of the following canopies:
 Cruislite reduced by 17.7% approximately
 Cloud reduced by 7.8% approximately
 XL Cloud reduced by 7.5% approximately
 DC5 reduced by 9.4% approximately

These canopies will no longer be supplied with risers and deployment bags, which has been the case in the past.

SAFETY LOOP FOR RAM AIR RESERVES

Para-Flite Inc. are recommending the use of a continuous loop of fabric covered 'bungee' elastic, known as a 'Safety loop', on the deployment bags for their Ram Air Reserves.

The safety loop passes through a nylon tape channel and is used for suspension line stowage on the mouth lock. The additional breaking strength of this loop is intended to prevent 'Bag Strip', a phenomenon where the bag is snatched away from the pack tray at such a force, that the canopy is left behind. The idea of a safety loop over conventional single loops, is that if one side snags up, the loop will completely pull free of the bag, allowing deployment.

QUICK RELEASE DEVICE

An alternative cut-away system to the Three Ring Circus has been developed by **David Brownell** in the USA. Called the 'Quick Release Device' this system uses interlocking leaves of stiffened webbing, known as paddles. These paddles are constructed of aluminium and epoxy plastic and are held together by a single wrap of nylon cord.

The breaking strength of the system is quoted as 3500lbs and Brownell claims that it is mechanically superior to the three ring because none of the parts have to pass through each other or release, as is the case with all other systems. The 'Quick Release Device' is about the same weight as the three ring but slightly bulkier, and is operated by a single point release pad similar to the three rings. A patent has been applied for.



RELATIVE WORK 1983

Perfect facilities, well flown aircraft, excellent weather, good results and no protests; the dream of every organiser, judge and competitor alike and not often achieved, but it was at Sun City and in style.

Political interference had, of course, reduced the entry but those teams whose governments were enlightened enough to allow them to make up their own minds about entering, competed in a perfect competition which will become the example others seek to achieve. It was interesting to note that British entry into the Million Dollar Golf Championships held at Sun City the previous week attracted neither political nor media comment.

But to begin at the beginning we return to Wonderboom Airport just north of Pretoria, and site of the 1974 World Cup in Relative Work; for it was here that virtually all nations entered took advantage of a training camp utilising the two Pilatus PC6 Turbo Porters which were to be used for the competition itself. It was here also that the International Panel of Judges gathered on 6th December for a three day seminar as required now by the rules. The panel contained the only BPA representation with **Charlie Shea-Simonds** as Chief Judge; **John Laing** as video operator, (it was a return visit for John who had purchased and assembled a Video System for the South African Aero Club and operated it at their Nationals earlier in the year); **Martin Rennie** as a member of the panel; **Julie Hanks** as Chief Judge's secretary and **Evelyn Laing** as the video operator's minder!

On the 9th of December all competitors and officials travelled by bus to Sun City, Bophuthatswana, some 80 miles north of Pretoria. Sun City's boast of being the 'Entertainment Capital of Southern Africa' can't be far from the truth. It's a vast hotel, entertainment, sporting and gambling complex built only a few years ago at an estimated cost of some £70 million. All involved in the Championships were accommodated and fed in the 'Cabanas', a motel like operation of the highest quality with which it was impossible to find fault. Two minutes walk away was located the large communal competitors' marquee alongside the DZ (the Sun City helicopter LZ) which was in turn only a few paces from either the emplaning area or the large swimming pool complete with pool-side bar. Conveniently the judges' room, on top of which the video cameras were mounted, was even closer to the latter - all of 20 yards! The Porters were using the 9th fairway of the Golf Course where the wind throughout enabled them to take off away from the emplaning area and land in the opposite direction towards it thus eliminating taxi time. At 3500ft above sea level the Porters performed as only Porters can, but the length of the fairway allowed little room for error as one pilot found out to his embarrassment when he inadvertently took off without the use of flaps.

The main briefing, given by the Meet Director and Chief Judge, took place on the evening of the 9th and was, for the first time, given to all competitors rather than just Team Leaders - there's no doubt this was a contribution to the ultimate success of the competition with everyone fully aware of what was required. The first of the practice dives took place early the following morning and the shakedown of the organisation and systems was under way. The primary video, operated by **John Laing**, was fitted with a 1600mm lens whilst the back-up system operated by **Koos Moorcroft** of the South African Army had an 800mm. This proved to be an ideal combination and it was only on a few occasions that the back-up tape had to be viewed to clarify the bottom end of a dive where the jumpers had gone out of frame on the primary camera. After lunch the simple opening ceremony took place with a lone South African jumper landing on the 18th green with the FAI flag before a moving speech by the Chairman of the Bophuthatswana Sport and Development Committees, **Mr. Mogosti**, of which the following is an extract "...In Bophuthatswana, Landies and Gentlemen, in this young and developing country of ours, we would like the World to know that we are at home. We are warmly and affectionately attached to our beloved country and in this, we experience the same sentiment that we all share when we use the expression - 'ther is no place like home'."

After the opening ceremony it was announced by **Peter Wagner**, Managing Director of Sun City, that all competitors and officials were invited to the Liberace Show that evening - that great entertainer being the star attraction during our stay. There were very few who didn't enjoy the show in which Liberace was at his outrageous best with his arrival on stage in a chauffeur driven drop-head Rolls Royce Corniche, setting the atmosphere brilliantly! By lunch time the following day the practice dives had been completed and the draw and final briefing took place soon afterwards. During the practice dives the US 8-Way Team established a fine 17 point World Record with Set Sequence No. 2. By the end of the day the competition was underway with the first four teams having made their first round jump in the 8-Way Event.



John Laing operating the primary video



The International panel of Judges.



The 4 Way Winners



The 8-Way Winners



Chief Judge's secretary Julie Hanks gets closer to nature during a visit to a reserve.



The US 8-Way Team board one of the Porters

Low cloud prevented an early start on the 12th but by the end of the day's jumping three rounds of 4-way had been completed with Switzerland holding a three point lead over USA and South Africa with a total of 31 points - they had scored an excellent 12 points on their 2nd round random dive. Germany has misinterpreted the Round 3 set sequence which sadly gave them three points and effectively put them out of the running. The 13th saw an excellent competition with Switzerland having pulled ahead to four points lead over USA with 67 with South Africa seven points further behind in third place with 6 rounds completed. The US Team, Visions, used the 13th to prove without doubt their polished superiority in the 8-Way Event with 4 rounds completed and little opposition being shown by Switzerland, Germany and South Africa who were trailing in this order. By the end of the following day the 4-Way Event had been completed with Switzerland having taken first place with a decisive total of 115 points. It was a convincing victory with the Swiss team gaining about a point a round on the US Team who finished in second place with 108 points, and South Africa third with 101. Meanwhile the United States had built up an unassailable lead in the 8-Way Event after 5 rounds with a total of 53 points, fourteen points ahead of Switzerland with 39 points and 26 points ahead of Germany with 27 points. the remaining day and a half was something of an anti-climax with the USA pulling further away in the lead. There was a minor struggle for third place but finally South Africa moved up into third place - the final result being USA 1st - 102 points, Switzerland 2nd - 72 points and South Africa 3rd - 53 points. The US Team had produced a fine performance particularly so as they were so easily judgable - certainly they had worked hard and methodically for their success using computer technology as an important aid with transitions between all random formations colour coded and immediately available by resort to the keyboard.

With there being time to spare at the end of the competition a Team Leaders' Meeting decided that it would be worthwhile to use the World Meet organisation to run a two round competition in each event to evaluate Zeke Zahar's proposal for a future alternative to the traditional set and random rounds. Lowell Bachman, boss of Paragear, who was at the World Championships as an enthusiastic spectator (and who had been Assistant Chief Judge at the 1981 World Championships in Florida) generously donated \$1000.00 prize money. This experimental mini-meet was highly successful and proved Zeke's proposal to be a worthy follow-on to what we have at the moment producing a more easily judgable event with an exciting new variety. The Swiss won both four way and eight way thus walking off with the lion's share of the prize money.

The prize giving followed on the 18th and the worthy winners in each event received the respective William Ottley Swords which were presented by Uwe Beckmann, President of CIP and Peter Wagner, Managing Director of Sun City. Thus the 5th World Parachuting Championships in Relative Work, and the most successful yet, came to an end. This success came about because of the enthusiastic labours of so many members of the Parachuting Committee of the South African Aero Club and particularly Richard Charter, South African CIP Delegate, who was the inspiration behind the whole event.

CHARLES SHEA-SIMONDS

OFFICIAL RESULTS
5TH WORLD RELATIVE WORK CHAMPIONSHIPS

4 WAY EVENT

ROUND

Name	1	2	3	4	5	6	7	8	9	10	Total	Place
Belgium	5	7	3	8	6	10	10	7	7	7	70	5th
Germany	3	7	6	9	4	10	13	4	6	6	68	6th
Italy	9	8	8	9	7	11	16	8	10	4	90	4th
USA	8	10	10	12	9	14	15	11	10	9	108	2nd
Switzerland	10	12	9	11	10	15	16	12	11	9	115	1st
Ireland	2	3	1	4	5	4	6	2	0	2	29	9th
Brazil	4	0	6	4	4	8	3	6	3	3	41	8th
RSA	7	11	10	11	8	9	16	9	9	11	101	3rd
Austria	6	5	8	7	7	8	9	7	4	6	67	7th

8 WAY EVENT

ROUND

Name	1	2	3	4	5	6	7	8	9	10	Total	Place
Germany	5	5	6	5	6	7	2	4	7	2	49	4th
Austria	3	3	3	2	6	3	3	2	4	1	30	6th
RSA	6	5	4	0	9	6	7	6	7	3	53	3rd
Belgium	4	4	5	4	7	2	2	2	5	1	36	5th
Switzerland	7	5	10	7	10	6	7	6	9	5	72	2nd
USA	9	9	15	9	11	11	10	10	11	7	102	1st

PARA FLITE WIN \$325,000 LAW SUIT

On the 22nd November 1983 a jury in Atlanta, Georgia, returned a verdict in favour of **Mr. Steven Snyder**, in a lawsuit between his company, Para-Flite and **Mike Furry** of Django Enterprises.

The jury decided that Ram Air parachutes as manufactured by Django infringed the patents held by Para-Flite.

On the following day the court entered an injunction enjoining Django Enterprises and **Mike Furry**, together with all of their Officers, directors, employees, agents and privies from any further manufacture, use or sale of the 'Pegasus', 'Firefly', 'LR288', 'Bandit' and 'Dragonfly' Ram Air Parachutes, or any other Ram Air which embodies the inventions of Steve Snyder's patents. Django was also ordered to pay damages of \$325,000.

PARA-FLITE PRESSURE

Django Enterprises are by no means the only manufacturer to employ the techniques described in the Snyder patents. A small manufacturer, **Mike Mount**, was forced to stop building his 'Paramount' canopy a few years ago because of Para-Flite pressure.

One or two other manufacturers have accepted a licencing arrangement, issued by Para-Flite to manufacture canopies under the Snyder Patent. But Furry decided to stand up to Para-Flite pressure on what appears to be a point of principle.

ATTACHMENT OF SUSPENSION LINES

Several of Snyder's patents were infringed by Django, but the major one is that concerning the attachment of suspension lines to the canopy (US Patent No. 3724789 and UK Patent Nos 1327453 and 1328950) which apparently some people feel is such a basic requirement, that no-one should hold a monopoly on it.

Some manufacturers believe that the techniques as patented by Snyder were in use by other people prior to Snyders patent

being issued. However, the patents are there, and they are owned by Para-Flite. In addition to the USA and the UK, Snyder also holds the patents for the following countries, France, Spain, West Germany, Sweden, Israel, Canada, Italy and South Africa.

TO THE DEATH

There are some major manufacturers, like Pioneer Parachutes, Strong Enterprises and Parachutes de France, making Ram Air canopies without a licence, as well as several smaller companies around the world. But Para-Flite feel that although these companies infringe the Snyder patent they are not likely to follow Django's footsteps of fighting to the death, but will be more likely to negotiate a licence with them.

NEW SERIES

Since the demise of Django, **Mike Furry** has not been idle. He has been busy, carrying out a test programme on a new series of ram-air, utilising very small flares to distribute load from lines to canopy.

This technique does not infringe the Snyder patents, and cannot infringe the Jalbert Foil design patents as these expired at the end of 1983.

The new company, called 'Glide Path' is in Furry's wife's name, and financed by her family. They are currently testing the following canopies:-

The FIRELITE - a 176 sq. ft. 7 cell
The CRUSADA - a 220 sq. ft. 9 cell
The WILDFIRE - a small, fast 9 cell
The MANTA - a 288 sq. ft. 9 cell

No prizes if anybody notices a similarity in these canopies to that of another, now defunct series.

In order to give a full account of this subject, we invited Para-Flite to give us some background information. An article by **Elek Puskas** of Para-Flite follows.

ROB COLPUS

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THE HISTORY OF RAM AIR DESIGN

Domina C. Jalbert was the first to invent and patent a ram air stiffened fabric wing. He filed a patent in 1964 which issued in 1966 and expired at the end of 1983. His patent is the basic para-foil patent. Para-foil patent meaning that his design relied on the use of flares to distribute the load to the canopy. Because at the time he believed that using flares was the only way that a ram air wing could be built, that is the only thing he patented.

Steve Snyder made his invention in 1966 and filed a patent in February of 1970 for it. Snyder's invention was the second ram air parachute to be patented and was based on constructing a ram air stiffened fabric wing without the use of flares for suspension line load distribution. Snyder's patent issued in 1973 and will expire in 1990.

After Snyder's invention, Pioneer Parachute Company filed for a patent for their version of the ram air parachute, the Volplane. The Pioneer design included a ram air stiffened fabric wing for the first 1/3 or so of the canopy and the rest of the canopy being a single surface.

Para-Flite was formed in October of 1969, specifically to market and develop sport parachutes around the invention of Snyder's.

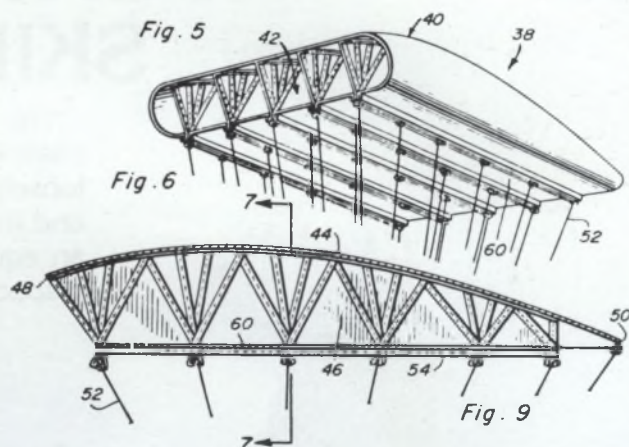
Para-Flite manufactured a few para-foils under license from a company that at the time owned or held the Jalbert patent. This was in late 1969 or very early 1970. The Para-Plane was introduced in May/June of 1970 and was the first flareless ram air parachute. Pioneer introduced their version of a ram air parachute, the Volplane, in August of 1970. The Volplane had a hydraulic reefing system.

Unlike the other gliding parachute entries, like the Volplane, Sailwing, Para-Foil and a few other forgotten oddball designs, the Para-Flite entry was designed by skydivers for skydivers and was therefore much more practical to use for sport parachuting. Specifically, in the area of reefing system design is where Para-Flite's product excelled.

In the early years of ram air parachutes they were very, very difficult to sell. To convince people to switch from their round parachutes to something which is rectangular and flies at frightening speeds was difficult.

Consequently, ram air parachute sales were nothing to write home about until 1974 when the Strato Star was introduced. The Strato Star offered much less bulk and much softer openings than ram airs up until that time. It was the Strato Star that relative workers began to use and large numbers of them were being manufactured and sold all around the world in the mid 70's. Approximately one year after the introduction of the Strato Star the slider reefing system was adopted to it and sales were increased even more because of the simplicity and low weight and bulk of this reefing system. Para-Flite, in essence, was the major manufacturer of ram air canopies up until 1977/78. There were other manufacturers during this time but none succeeded to any appreciable degree. Some of the manufacturers involved during this time period were Pioneer Parachute Company, Air Foil Systems Inc., (a Jalbert licensee) and after 1974, the Chute Shop also a Jalbert licensee. The first parachute to have appreciable success against Para-Flite products was the Unit by GQ Security. GQ Security is, of course, a licensee under the Snyder ram air patent.

The second company and product that successfully competed with Para-Flite and their product was D'Jango and the Pegasus. D'Jango had the right product (low bulk, light weight, soft landings) and the right price (cheap) and at the right time. D'Jango's low price was made possible by several factors. One, they did not have to do any research and development, therefore they had no costs involved with that and were able to set up a low



Drawings from Snyder's original patent, showing how the suspension lines were connected to the bottom skin of the canopy and reinforced with "crows feet" of tape to distribute stress over a larger area of the canopy.

overhead operation. Secondly, because of the early marketing efforts of Para-Flite, by the time D'Jango entered the marketplace everyone was convinced that square parachutes were the only way to go. Therefore they had no marketing expenses or advertising to speak of because ram air parachutes were in great demand at the time.

When Para-Flite was started in 1969 it was a three man operation in Snyder's basement. As the ram air parachutes became more and more accepted and Para-Flite grew they also attracted the attention of some of their competitors. One of these competitors was Pioneer Parachute Company and they filed a patent infringement suit against Para-Flite in the mid 70's claiming infringement by Para-Flite of the Pioneer Volplane patent. After two years of litigation and thousands and thousands of dollars in legal fees Para-Flite won this lawsuit.

Also during the mid 70's Jalbert filed a patent infringement suit against Para-Flite claiming that Para-Flite's products infringed the Jalbert Para-Foil patent. Para-Flite defended this lawsuit vigorously, spent lots of money in doing so for a period of approximately four years and ended up settling out of court with Jalbert.

Immediately following settlement of the Jalbert lawsuit the Jalbert licensee, North American Aerodynamics or the Chute Shop, filed a lawsuit against Para-Flite claiming that their rights, that they had purchased under the Jalbert patent, were infringed. This lawsuit was also vigorously defended by Para-Flite and was settled out of court after approximately three years of litigation.

When the lawsuit was filed against D'Jango in 1980 claiming patent infringement, Para-Flite had extensive experience in litigation but never as a plaintiff, only as defendants.

The D'Jango lawsuit was also litigated and fought for a period of 3 years and was finally won after approximately 1 month of trial proceedings. During the three years of this litigation D'Jango had numerous opportunities to settle the lawsuit but they chose to fight to the end. Para-Flite, in fact, made a general offer to anyone in the industry, infringers and non infringers alike, the offer was at a very reasonable royalty rate, however National Parachute Supply Company was the only company that took advantage of it.

The victory against D'Jango doesn't really give Para-Flite a monopoly on the ram air canopy, since in addition to the licensed companies manufacturing Para-Flite's flareless design, the Jalbert patent has expired and anyone is able to manufacture the para-foil design as an alternative to Para-Flite's flareless design.

by ELEK PUSKAS
President Para-Flite

4-WAY CRW ROTATIONS SKILL or STUPIDITY!

I'm confident some people would dismiss even basic CRW simply as dangerous. Taking, what could loosely be described as your 'Life Support System' and making a controlled (or otherwise) collision with an equally unenlightened parachute pal, if so, with respect this article is not for you.



What I intend to do here is hopefully, with the help of some diagrams explain in some basic terms, the methods of training for, executing and dispelling some fears of 4-way rotations. There are other methods, but over a period of some extensive training and by watching others, the method of stalling 'over the top', once mastered is the more controllable, quickest and gives the biggest thrill, which eventually becomes the biggest part of the whole exercise. I will say this, that by entering into the Rotation Sphere you will find after an amazingly short time, your confidence in your canopy handling and CRW generally will increase many fold, corny though it may sound, you will be increasing your parachuting boundaries and skills and apart from anything else it is a bottomless pit of discussion and ideas for the bar after jumping.

However, just before we talk about techniques, equipment and drills, it would be wrong of me not to mention a little about commitment, because in the initial stages, perhaps when things aren't going right, or one of the team has just scared the living daylights out of you, there could be a tendency to bin the whole idea. It will be hard work, but by committing yourselves and a little perseverance, I promise you it will quickly become increasingly worthwhile. Unlike RW, Style or Accuracy, CRW has a very quick progression rate from the intermediate (for want of a better word) to the experienced.

HOOK-KNIFE

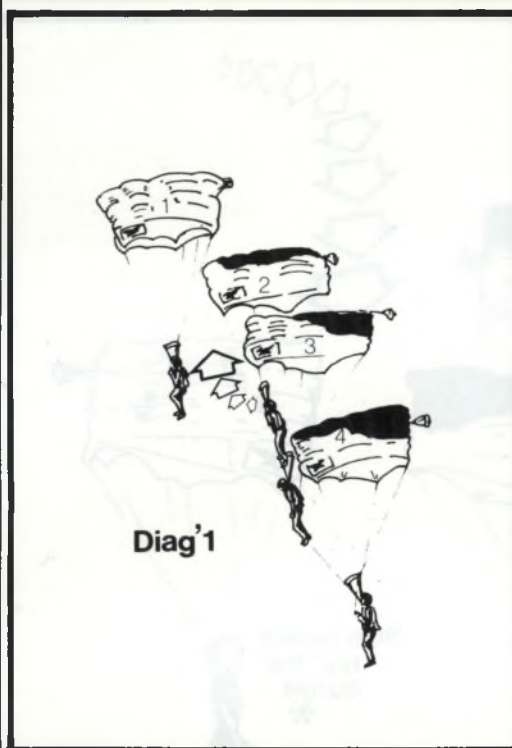
Okay, so on to equipment. Hook-knife! One is a must, two knives are preferable, you should always carry one anyway, but in CRW it is criminal not to and potentially dangerous.

With the vast amounts of canopies available now, it is difficult to scrutinise each one (but a square helps!) If you are blessed with a 1978/79 Merlin you have a head and shoulder start on anyone else straight away, however, with Cascades modified Pegasus and Firefly, Unit II, Comet 228 and a number of others, these are fine and will usually fly through the Tri-Planes burble without end cell closure. Shorten your bridle line, crossport vent your canopy if its not already, fit riser bars and with a good pair of gloves you are just about set. Perhaps with January approaching it maybe appropriate to include thermal underwear and woolen socks.

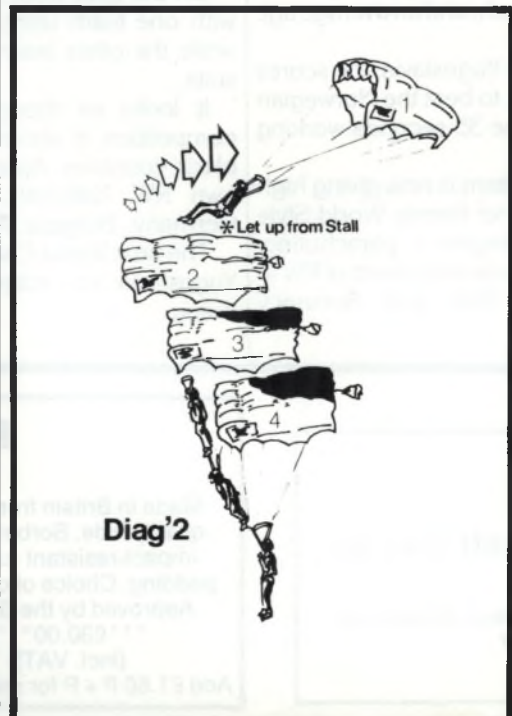
Now training for rotations must be taken more progressively and treated with respect than other aspects of our sport. Go up and practice building Quadroplanes, find out who makes the best of base 'n pines, find out which canopies are best positioned in the quadroplane, ideally I would suggest putting your most experienced members Pin and No. 3, but that is for you to decide. There is no need to have a Megafast RW type exit in the initial stages, as you become more confident in getting on heading openings, gradually speed up the exit, ask for 80 knots running in speed, that way you will quicken up your openings and spread the exit out a little, just a little tip to keep morale up, while you are building your Quadroplanes keep an occasional eye on the DZ, stop and turn it around if you must, we've had too many occasions to discuss the whole dive in detail, on long cold walks back to the DZ. There is no need to hold the Quadroplane far too long and admire it, split it up and rebuild it, get the most out of your altitude, in competition there is only a split second when all four guys have contact with each other anyway. The Plane should be flown on full drive especially on the top, and talk to each other, as you are approaching give the 'Standby' so your receiver isn't suddenly shocked by 200 sq. ft. of Fill.

TIME TO ROTATE

So you are hot and building consistent Quadroplanes, not it's time to rotate, remember progressively! As soon as No. 4 docks the sequence begins, No. 3 shouts 'on', No. 1 from full



drive kicks out of the riser bars, applies sufficient brakes (usually $\frac{1}{2}$) to stop a surge forward and to rise up the front of the stack. No. 2 prepares to take control of the stack. Now this is where its going to get a little complicated. Each member of the team has a number of jobs to do at the same time, No. 1 is as his own and now has the glory slot. Diagram 1 shows this first sequence, he has initiated his rotation, so we will forget him for a while. No. 2, still on full drive, has control of the stack, as No. 1 disappears over the top, the stack will surge forward making it difficult for No. 3 to plane No. 4, he must quickly, by applying brakes, stop this surge, keep the stack on heading and return slowly to full drive. No. 3 having checked his nose hasn't curled over, planes No. 4 as quickly and smoothly as possible, any side to side movement or rough plane-ing may start his canopy 'dancing' and make life hell for the pilot and rotator. No. 4 applies brakes to enable No. 3 to plane, needless to say his dock was central and No. 3 was able to take his centre lines.



CORRECT STALL POINT

Okay, now Diagram 2, remember No. 2 now has to stop the surge and return slowly to full drive, pick up a heading and keep the stack on it, No. 3 is still plane-ing and looking for the riser bars, No. 4 still on brakes, telling No. 3 to get his ass into gear and when to put his feet in the riser bars. Now then No. 1, as you apply $\frac{1}{2}$ breaks you will move up the front of the stack about 2-3 feet in front is ideal always looking over your shoulder at the stack. The correct stall point is about when the 'nose' of No. 2 passes just past your shoulders, your canopy will take enough time to react and lift you over the top surface, but this obviously is a crucial point in the manoeuvre and takes a few dives to get it right. Stall too late and you end up above and behind the formation, stall too early and you will have three team members experiencing a Tri-Wrap, you being the sole instigator, its not good for morale and no comfort finding yourself the only one under a square canopy! So without emphasizing it too much work down progressively to the correct stall-point. However, the more dynamic the stall the less time you will need to keep it. The same applies with letting up from the stall, it is almost impossible to hit the back of the stack, and if you let up as indicated in Diagram 2 you will have a nice easy ride through the burble 6-10 feet behind the stack. The closer you get to the stack, the less you will have to fight to keep the canopy flying true through the burble and less chance of end cell closure, and incidentally more thrill. Still with me!?

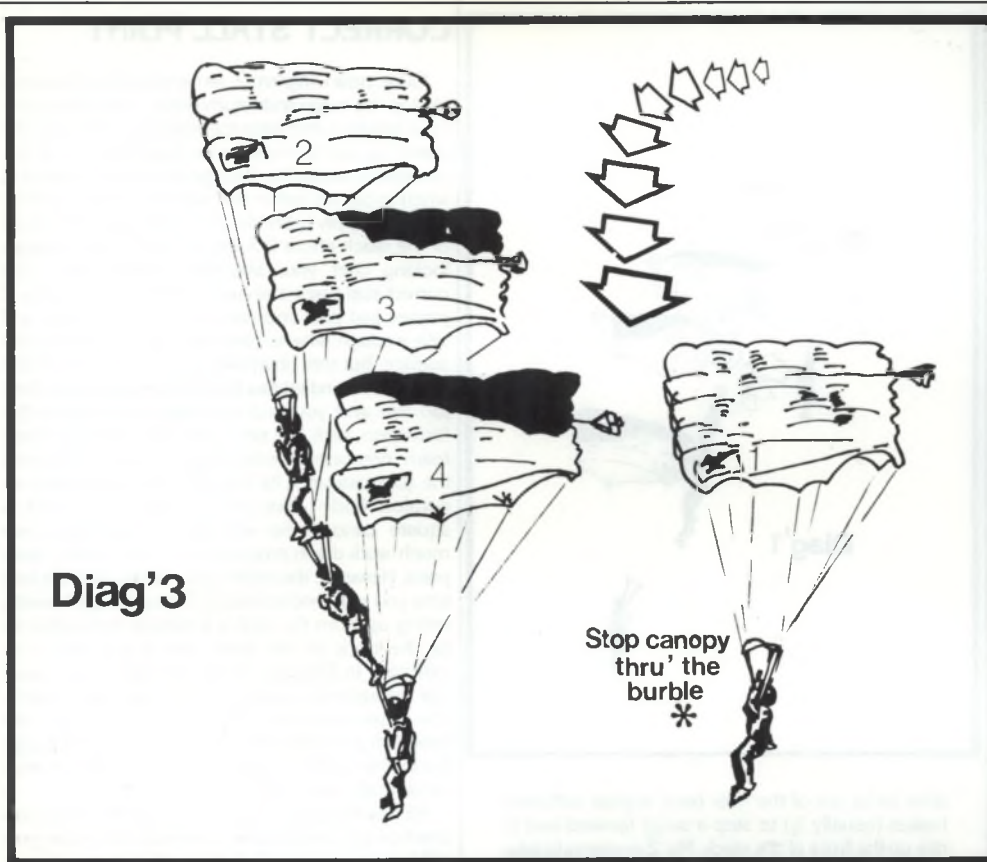
All this happens in split seconds, the more you practice the manoeuvre, obviously the more you will become aware of what exactly is happening. It is impossible to write down on paper what is racing through an individual's head at this stage, all your parachuting senses are telling you now not to stall a single canopy over a Tri-plane, but done correctly and with discipline, it is a perfectly safe and acceptable manoeuvre, but it takes practice and confidence, both supplement each other.

BURBLE

So now you are on full drive, travelling through the burble, if you continue right through the burble and then make your approach to the stack, you will end up too far below the formation and wasting precious seconds getting back up, again it takes time for your canopy to react, so stop it as indicated in Diagram 3. Stop it by very quickly hitting $\frac{1}{2}$ brakes, as quick as you can, and back to full drive, keeping it trimmed squarely behind the stack and lining yourself up for your approach. No. 2 meanwhile is on full drive keeping the stack on heading, No. 3 having just planned No. 4 has control of his canopy preparing to take control of the stack. No. 4 is having a busy time too. He must clear his nose, i.e. make sure it is not tucked under, before accepting No. 1. If No. 1 has done a sub 10 second rotation, he is the one usually under the biggest pressure. 'Standby' comes from No. 1, make your approach at a much shallower angle than usual on full drive and just before No. 4 takes your centre lines apply brakes. This will stop your canopy from almost engulfing the receiver, if turned properly he will be already planed with no work to do climbing down your lines, it all saves time. As soon as No. 4 is happy he has a firm grip of (hopefully) your centre lines he shouts 'on', and the whole sequence starts again.

It is hard work, and I mean just putting it down on paper. Obviously thing will go wrong, you may experience end cell closure and you will not however determined, catch the Tri-plane, pump it out and start again. No. 3 may have taken a decade plane-ing after a bad dock and No. 4 not ready to receive, No. 1 may have stalled too high and too long and ended up in another part of the sky; whatever the problems and mistakes made, by chatting about them and debriefing carefully after each dive you will get them sorted out.

This article has been long and heavy at times I



Diag'3

know, and maybe the sceptical would argue there is a lack of a safety brief, but believe me I am the biggest advocate of safety while performing rotations. Each incident requires the utmost discipline and awareness. I am confident your CCI wouldn't allow you a place in the plane if he felt you were not aware enough to deal with it, but it is ultimately up to you at 7,500ft to act responsibly and within your means. Hopefully in the Spring a series of CRW Seminars will be held at interested DZs, **Ian Rosenvenger** and **Simon Ward** are busy getting it together now, so keep an eye out on your club notice board.

Rotations need not be an exclusive club, it is fun, exhilarating, beyond explanation, quickly learnt and less dangerous than finding yourself too hot on an accuracy approach (well, at least my accuracy approaches!) we genuinely wish to see more of it going on around the DZs. Best of luck and Merry Christmas to you all.

NIGE' WATSON CLARK
Royal Marines CRW Team

RUSSIANS ENTER INTERNATIONAL RW COMPETITION

The Soviet Union recently entered its first International Relative Work Competition at the 12th Adriatic Cup, which took place in Opatija, Yugoslavia.

Although we know the Russians have been doing RW for years (they in fact hold several FAI records in 4 and 8 way sequential), this is the first time they have appeared in competition outside the USSR.

They entered two 4 way teams in the Meet. All the team members were experienced style and accuracy competitors with an average of 5,000 - 6,000 jumps each, and an average age of 31.

Although they won the competition in Yugoslavia, the scores were not very impressive, just managing to beat the Norwegian team with an average of 7.5 points in the 35 seconds working time.

Apparently the Soviet parachuting system is now giving high priority to RW. Proof of this is the fact that former World Style Champion and owner of a university degree in parachuting, **Vladimir Gumij**, is now responsible for the development of RW in the USSR. Apparently the Russian Style and Accuracy

competitors have been using RW for years as a means of relaxing from S and A training, and last year they added CRW. But it seems that the focal point of their training is now aimed at RW.

At the Adriatic Cup the Russian team also won the team accuracy, and the individual style event with a 6.86 second average. Russian **Artur Dino** had the best style score with a 6.1 second clear. They came second in CRW behind the winning Australian team.

On the gear front, the Russian thinking seems to be varied, with one team using front and back systems and tight suits, while the other team used French made Piggybacks and RW suits.

It looks as though a new chapter in International RW competition is about to begin, with the inclusion of Eastern block countries. Apparently several of them already have their own RW Nationals. Among them for example are, East Germany, Bulgaria, Poland and Czechoslovakia.

The next World Championships in RW in 1985, is to be held in Yugoslavia, so I suspect we should see some interesting sky-diving.

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TWO RISERS OR FOUR

In the October issue of SP a letter from **Mike Newall** asked the question "Why do some people use only two risers on their reserves"? Mike's letter prompted us to contact some equipment manufacturers on the subject.

From our enquiries we found that some manufacturers supply their reserves on two risers, whilst others supply theirs on four. The ones that come supplied on two have been TSO'd as such, and the performance of such a reserve is deemed to be adequate on two or four risers.

However, a reserve that is supplied from the manufacturer on four risers should only be used on four and not put onto a two riser system.

None of the manufacturers questioned, considered the possibility of a broken connector link as likely. Although this might be a point for personal reflection for the reasons Mike suggested in his letter.

The two riser set up was originally used on most of the tandem rigs on the market around 1974, because they used surplus reserve canopies, such as the 24' F10R that were easily available at that time. The only sport tandem systems on the market at that time with 4 risers were the Security Pigs and the Piglet from Para Innovators.

Para Innovators were really the fore-runners in using 4 risers for an interesting reason. Because the lines of their Piglet reserves were so short, they needed the extra length of 4 risers in order to allow their canopy to spread further, thereby decreasing the rate of descent somewhat.

The next rig to adopt 4 risers was the 'Racer' because they used the Piglet reserve extensively due to its small pack volume. Shortly after the first square reserve 'The Safety Flyer' came out and this required 4 risers. It was first TSO'd in the 'Wonderhog', so they started to build them with 4 risers upon request.

After the advent of the second generation of square reserves many of the manufacturers either offered as an option, 4 risers

or built their rigs standard with them. Strong Enterprises still build their rigs with 2 risers. This is probably due to the fact that the 'Strong Lopo' and the 'Lopo Lite' come on 2 links because both of these canopies are 26' in diameter and have relatively long lines and do not need the additional spreading factor. The 'Lopo Lite' however is also TSO'd with 4 x No. 6 Rapide Links and may be set up on a 4 riser system.

Most of today's small packing reserve canopies such as the 'Phantom' series, 'Pioneer K' series the 'SAC' etc, have relatively short lines and therefore need the extra spread of 4 risers. There is also a slight weight reduction by using 4 x Rapide Links over 2 'L' links.

The Parachute Equipment Industry Association (PEIA) of the USA recommend the use of 4 risers in all cases. They have over the years investigated a number of cases where a jumper has complained of poor reserve performance. When these reserves were tested on a set of 4 risers, no problems were experienced.

Probably the main safety factor to be considered if assembling on 2 risers, on a four riser rig such as the Racer for instance, is that the front, Type 13 riser is used and not the type 8 rear riser. The front riser usually continues down through the harness as the main lift web and on into the leg strap. It's all one piece and is therefore the strongest riser.

Another safety factor to be considered is that the use of a 4 line release system on 2 risers is not recommended. It has been found that the canopy is practically unsteerable. You should either convert to 4 risers or place a modification in the canopy.

So it seems, that although it is not totally out of the question to use two risers on some reserves, it is preferable and in some cases necessary to use four.

My thanks to: **Sandy Reid** of the PEIA, **John Sherman** of the Jump Shack and **Derek Thomas** of Strong Enterprises for their contributions to this article.

ROB COLPUS



MATT MORTLOCK
DIRECTOR
LONDON PARACHUTING
4 YEARS



IAN HEAD
EX MANAGER
JUMP SHACK STH
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4 YEARS

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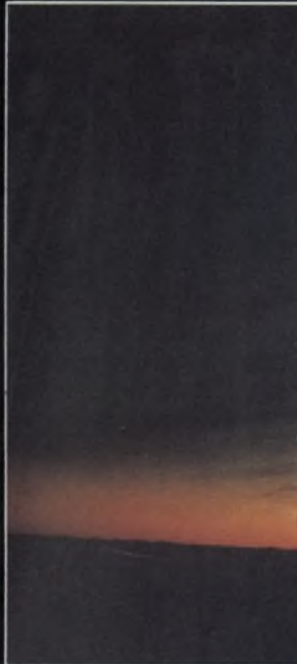
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1 James Lowe catches Steve Davis, Martin Lyster and Mike Collins exiting the 206 at Sturgate on a night jump.



2 M. J. Harnden pictures Steve Jarvis pausing to put his gloves on before boogying over Montford Bridge.



4 Steve Millard gets the exposure just right in this sunset shot of John Jackson over Cark.



5 Simon Ward photographs Jo Rix dumping out on her 200th at Netheravon.



6 Major Jackson (the pilot) managed to get this amusing shot of Roger Hoe and Martin Lyster attempting a Mr Bill over Dunkeswell. Roger wondered why it didn't work – maybe the weight of his boots had something to do with it.

TWO FOR THE PRICE OF ONE?



Ted Strong and Derek Thomas in Freefall

Parachuting as a sport has been with us for twenty-five years. Over these years there have been many developments in both techniques and equipment.

In parachuting equipment there have been only a few developments which have had a substantial long range effect on the sport. These are:

- (1) The modified 'steerable' parachute gave steerability to the parachutist and increased landing safety.
- (2) The tandem parachute system, both main and reserve parachutes on the back, increased the parachute's reliability and allowed the wearer a

greater degree of flexibility and safety.

(3) The Para-Foil, or ram-air canopy, revolutionised the sport giving the sport parachutist pinpoint accuracy and the feeling of 'supreme control of the elements'.

The newest development is the advent of tandem jumping, meaning that two people use one set of parachutes (one main, one reserve), which for the first time introduces the pilot/passenger relationship into parachuting.

Parachuting is the only aviation activity which has never been able to give dual instruction, and has only to a limited extent been able to realistically simulate the freefall environment, canopy flight, or landing modes. The introduction of tandem jumping opens a wide range of possibilities for individualized instruction including stabilized exits, instructor controlled attitudes (e.g. relative work docking manoeuvres with other people in freefall, and spins or stalls under canopy), accuracy techniques, and precision landings, all under direct supervision of an experienced instructor, and all with immediate feedback for the student.

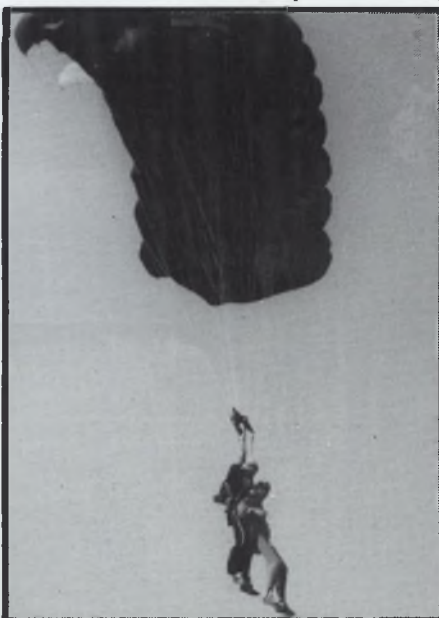
Presently the instructor trains the student in all aspects of making a parachute jump. Whether the training takes a few hours or several days makes little or no difference in the outcome. It may be a successful fun-filled parachute jump and a memory for a lifetime, or it may be a trying and difficult experience with the possibility of the jump ending in disaster.

Why can't the instructor go with the student? What happened to the pilot/passenger concept? What happened to dual instruction?

Until recently, equipment and techniques had not been developed enough to allow a pilot, in this case an experienced parachutist, to take his wife or friends for a fun, safe parachute ride.

Well, now they are here. With the advent of recent advances in equipment and methods, what had been only dreams is now reality.

TSO's tandem parachuting systems are now available with large gliding parachutes that can safely carry over 450 pounds, enabling an experienced parachutist to take a passenger for a parachute jump (skydive) with all the confidence, experience, and skill that the experienced jumper has spent hundreds of jumps and thousands of hours of practice



Ted Strong and Derek Thomas under the 'Mighty Mak' canopy

accumulating.

The dual harness and dual container assembly are especially designed to allow a student or 'passenger' harness to be attached directly to the front of the primary or 'pilot' harness. Five points of structural attachment (two at the shoulders, two at the waist, and a chest-high cinch strap) secure the two jumpers to each other creating a stable platform for aerial manoeuvres. In freefall the pilot can literally look over the student's shoulder and take him by the hand,

positioning the student's arms for turns and glides. Once under an open canopy, the student rides slightly lower than the pilot affording a clear field of vision to both, and a dual control system enables either or both to direct the canopy.

To date, October 1983, there have been approximately 100 tandem jumps made in Central Florida. The prime motivators behind this new development are two parachute equipment manufacturers: Strong Enterprises (**Ted Strong**), and Relative Workshop (**Bill Booth**).

Tandem jumps were initially made with passengers who were highly experienced parachutists. As the programme evolved, the level of required passenger experience was reduced to the point where prior parachuting experience is no longer required.

In addition to training novice and intermediate skydivers, tandem jumping enables untrained persons to be carried as passive passengers, opening possibilities for commercial operations and military missions. Already experienced skydivers have taken friends and secretaries along for the ride. Tandem free-fall jumps have been made from over 12,000 feet, with openings delayed from zero to over 60 seconds, and with a very high proportion of the landings made within a designated 5 meter circle.

The possibilities presented by this technique are far reaching. The safety record of sport parachuting may be greatly enhanced. Training of student parachutists will be more realistic with instruction which utilises greater student involvement, hands-on practice, instant feedback, and direct supervision.

The introduction of tandem jumping brings sport parachuting up to date and up to the professional level of every other sport aviation activity.

by **TED STRONG** and **DEREK THOMAS**
Strong Enterprises.

IN PRAISE OF ALL THOSE WHO DARE COMPETE

Perhaps the most significant development in skydiving equipment yet devised seems to have arrived on the DZs unheralded and almost totally unnoticed. Not born of F111 or Kevlar, no relation of parapack or nylon webbing, this masterpiece of technology is set to revolutionize skydiving techniques and teaching methods.

It is, of course, the in-flight or air-to-air video that has enabled close-up recording of skydiving action. Ground bound we are able to instant replay and get an accurate critique, analysing in slow motion or freeze frame, to see in quiet retrospect our mistakes and successes.

From "dope-rope" to 50-way, from first back loop to turning world style, the benefits of this unbiased cyclops can be utilised by all.

Once again it seems that competition was the spur. In order to maximise learning, and therefore improvement, RW teams realized jumps had to be recorded on film and later analysed. This requirement leading 'Mirror Image' to record initially on 16mm, resulting in pure 'Mirror Magic'. But the need for instant replay was obvious.

'Symbiosis' utilised Polarvision, skydiving's first attempt at instant replay. They obtained poor results at high film cost. Team 'I' took up with black and white high-definition Polarvision with only marginal improvement. Then Pete Reynolds came by wearing a crazy looking hat and with a 20lb. tea chest strapped to his harness.

The sport had emerged from thirty years of trimming and slimming, shedding the pounds and cleaning the lines and there stood a man with half a scrap yard bolted to his head. We watched amazed as he twisted focus rings, connected leads, pushed buttons, and got blown away with the realisation that he meant to free fall alongside this garbage and pondered on how many separate bits would impact after his canopy blew up. We stood in awe of a true sky-diving pioneer.

Ten minutes later we sat enthralled as we saw there on the TV, the plane, the jumpers, the run-in, heard the corrections, heard the cut, there's the door, the exit, the world, the world upside down - did you ever notice how John Parker looks like a free falling grasshopper - link-up, star, accordion, bi-pole, funnel, track off; listen to the free fall noise, watch the deployment, total silence. A slow half twist, soft hiss of lines through air, fluttering of stabilisers and slider, look at the colours; the world turns in a spiral, here comes the ground, thud. Eavesdrop on laughing, lying and exaggeration. Quick let's rewind and see it again, this bit in freeze frame, the funnel in slow motion.

I had just completed a month's work mounting a Polarvision system. After my first 10 minutes watching in-flight video I took my month's work outside and drop-kicked it over the hangar.

Two years later, serious 4-way is 5-way and 8-way is 9.

Teams have grown a video man. The obvious next step: competitions had to grow video men too.

1983 European 16-way meets. Competitions were completed in record time even in adverse weather conditions and hole-jumping through heavy cloud. They were all filmed using air-to-air video which made judging possible.

1983 Canada Cup. Some very strange busts. Questionable decisions might have been avoided using air-to-air video to back up the ground systems.

1983 also brought compact video. No longer do video need men to be equipped with gorilla-like legs and bull-sized necks, now these clever little oriental men have got one for girls. Weighing just 6lbs. (3kgs.) and measuring 10" x 7" x 2 3/4" (25 x 7 x 7 1/2 cms.) approximately. You've either got it or . . . you've got a damaged neck and shot knees.

Having jumped video for Team 'I' for the last two years of their training I was lucky enough to be asked to jump video at La Ferté Gaucher (France) and Turge (Holland) 16-way meets as an aerial judge. A strong British contingent ably led by Brian (Silver Medal) Mason and staunchly supported by some of the UK's top super swoops, witnessed the system proved. The meet at Turge, dogged by bad weather and prima donnas, was only made possible through air-to-air judging.

September 2-4, 1984 has been set for European 12-way at RAFSPA Weston on the Green, Oxford.

Bob Souter, now firmly at the helm as CCI RAFSPA, has generously offered the club's facilities plus a tame Twin Otter. Bob, himself a veteran competitor, is committed to the club policy of dedication to competitive, quality skydiving, a policy started by his predecessor Ray (RW) Willis. Bob views the meet as an exciting extension of the 16-way competitions that have been held in Europe during the last four years.

Experienced club members have combined their talents to promote an exciting event organised by competitors for competitors. Facilities at Weston include, not just water, but enough showers and toilets, good food, lots of entertainment, cheap lifts, and most of all, quality skydiving with hassles removed for the maximum enjoyment of all.

The success of the meet will depend to a large part on the participation of experienced video cameramen as aerial judges. With this in mind I hope to organise a weekend seminar for any interested video men so that their skills and experiences may be shared, not just for the benefit of one meet but to the advancement of the sport as a whole.

I hope that the meet will attract not just the established super swoops but all those who desire competition as I believe those who dare compete are those who truly promote our sport.

MIKE BOYS, Video Nasty
Picture on opposite page by Dave Stephens

Mickey Boyce is photographing
videoing 4 way Team I
picture by Dave Stephens



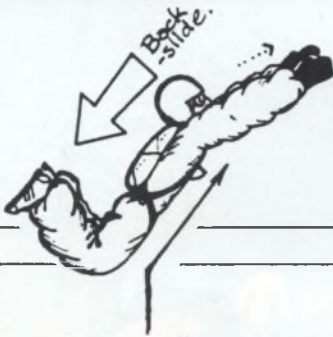
BEGINNING RELATIVE WORK (R.W.)

Eye Contact - Looking at where you are going or your target, with an occasional glance at your altimeter.

Buffeting - Rocking up and down as a result of being too wide. Usually happens after 10 seconds of freefall, if you are still in a student arch.

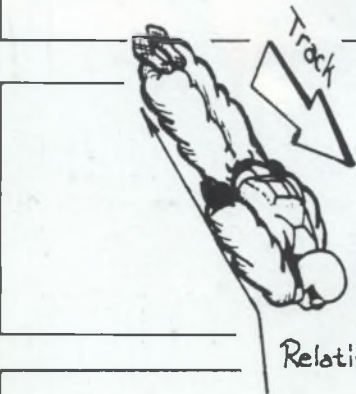
Relative Work - The term applied when two or more people occupy the close proximity to one another at the same time.

Neutral Position - Arms bent 90° at the elbow. Hands about even with your ears. Legs bent 90° at your knees. Knees spread apart wide.



Back Sliding - Having a head high position, causing the air to be deflected off your chest, pushing you backward.

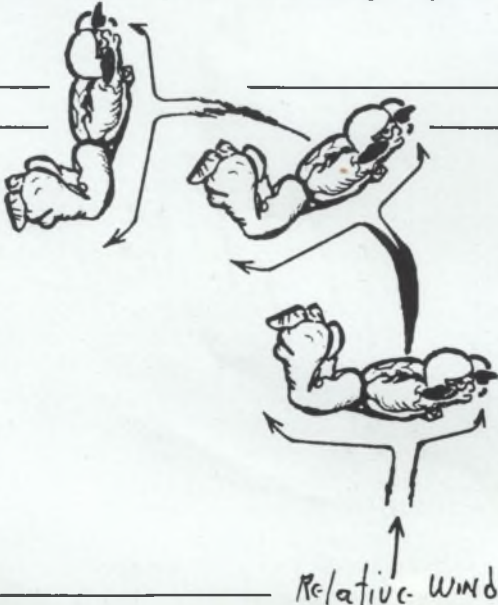
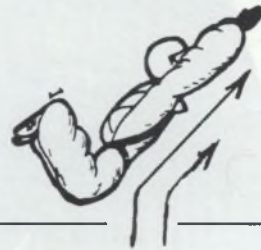
Delta - A freefall position which will cause you to move forward. Legs are straight and about a foot apart. Arms straight and about 45° out from the side of your body. Torso in an arch position. You will be head low in this position. Eyes shifting from the direction of flight to your altimeter.



Relative wind

Track - A freefall position which will cause you to move forward rapidly. Legs are straight and touching. Arms are at your side. Palms of your hands down. Shoulders rolled forward, slight forward bend at your waist. Head watching where you are going and checking your altimeter.

Reaching - The process of reaching out with one or both hands and arms when you are in close proximity of your target, causing you to raise head high and back sliding away from your target.

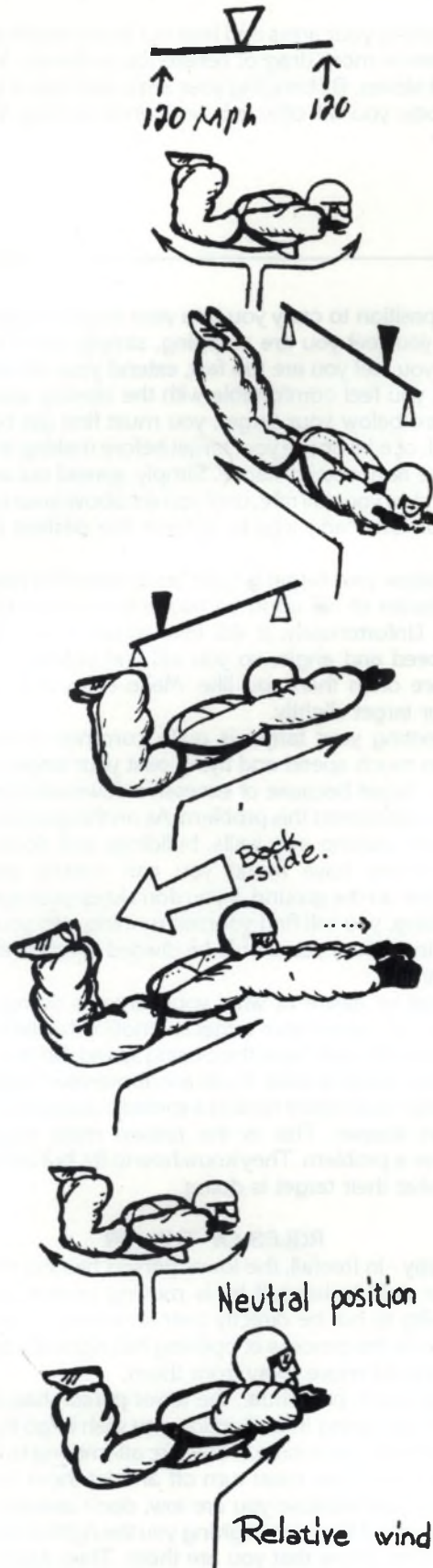


Closing Speed - The speed you approach your target. Should get slower as you approach your target. The last 5ft. should be the speed you would walk up to a person you were planning on shaking hands with.

Relative Wind - Is the wind or force, acting on your body. Its direction will change from the time you leave the aircraft until you reach terminal. From a direction 90° from the earth, because of the forward speed of the aircraft shifting down from a direction straight up from earth.

By changing your body position, the relative wind will change somewhat.

To be able to fly, not just fall, you must understand how to use your body to manoeuvre yourself around using your arms and legs as controls like wings on airplanes. Your body is supported by a cushion of air, equal on all parts of your body.



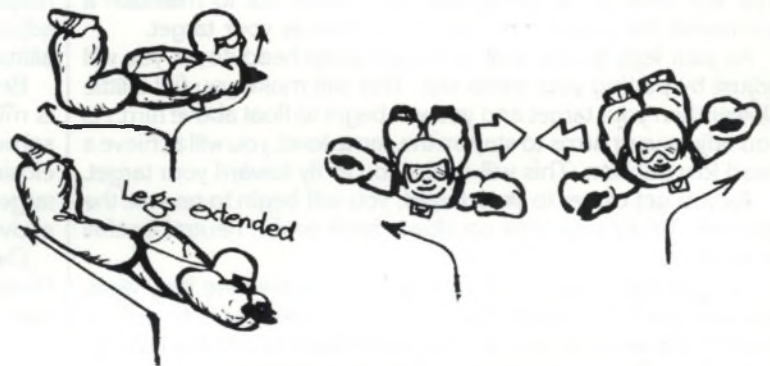
Think of your body as a teeter totter, but turned upside down and the wind being the force acting on the teeter totter. A point on your back opposite your belly button, being your fulcrum point or balance point.

Once you leave the aircraft, you aren't able to change your weight from front to rear, nor can you make the wind blow harder on one part of your body than on the other. But, we are able to change the length of our body by moving our hands, arms, feet, and legs, out or in. This changes the mechanical advantage of the arms of our teeter totter, or expose a greater portion of our body to the wind on one side of our belly button than the other side, raising that side.

There is another simple law of Physics that applies and we must understand. For every action there is an equal and opposite reaction. What this means is as the air is deflected off your body, it focuses your body in the opposite direction.

All of our manoeuvres will start from your neutral freefall position. In this relaxed position, you will fall relatively straight down. The air is deflected off your body equally in all directions.

By changing the position of your hands and arms and not moving your feet, let's see what happens. If you slowly push your hands and arms forward over your head, you will begin to raise head high.



If you are head high, air will be deflected off you at an angle forcing your body backwards. This is caused by the air being deflected off you, pushing you backward. Now if we return to the neutral position we will flatten out and begin to fall straight down again.

If we extend our legs, leaving our arms in the neutral position, we will dip head down, causing the air to be deflected off our legs pushing us forward.

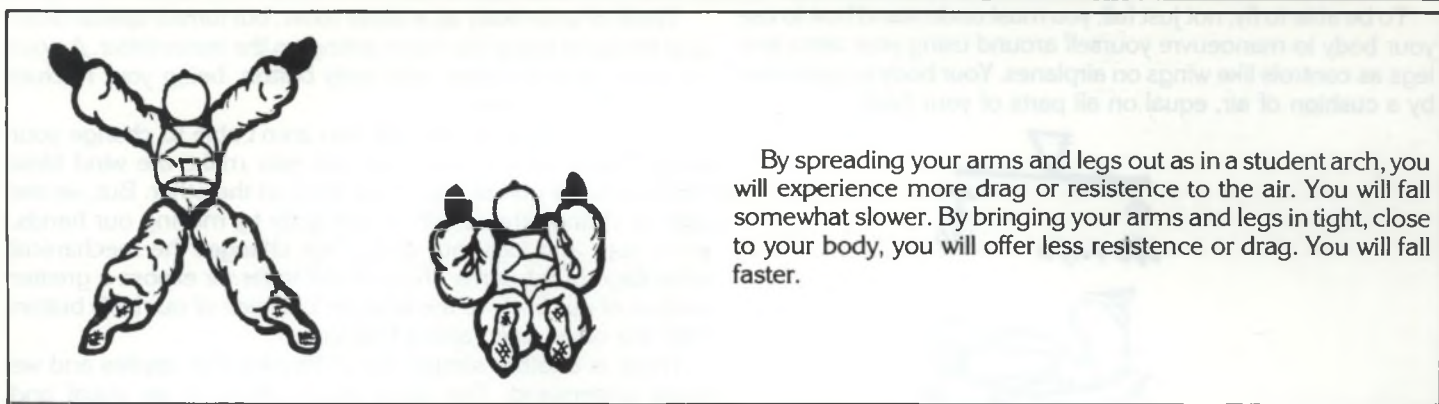
The motion to the left and right can be achieved in the same manner, by tilting your body left side high, by extending your left arm and leg to the left. You will slide to the right. Right side high, you will slide to the left.

With this basic concept, let us see if we understand how to use our extremities to manoeuvre ourselves in the sky. Head down means forward. Head high means backwards.

With the greater range of movement in our arms from straight over your head to at your side, you will use them to adjust your attitude. (head up or down) You will use your legs for forward speed.

All movement of your hands, arms, feet, and legs, should be in a slow deliberate action. Not a quick jerky action. With slow movement, you will be in control of your attitude and speed. If you use quick, jerky actions, you will over correct and find you have to make large corrections in the opposite direction to compensate for your action.

When you make a movement with your arms or legs the results aren't immediate. It will take a few seconds to redirect the wind and to begin to move your body in the desired direction. When you return to the neutral position from a position, causing you to move, it will take a while for you to slow to a stop.



By spreading your arms and legs out as in a student arch, you will experience more drag or resistance to the air. You will fall somewhat slower. By bringing your arms and legs in tight, close to your body, you will offer less resistance or drag. You will fall faster.

With all these laws of Physics, let's see how to get from point A across the sky to point B.

If you are on the same level with your target and a distance apart, you should slowly extend your legs to give you forward speed toward your target. The farther away it is, the straighter you should point your toes. The straighter your legs, the faster you will travel. As your feet go out, you will start to dip head low. You will need to slowly spread your arms out to maintain a somewhat flat position on the same level as your target.

As your legs go out and you begin to dip head down, you will adjust by putting your arms out. This will make you fall a little slower than your target and you will begin to float above him. As you adjust your arms to stay on the same level, you will achieve a head low position. This will cause you to fly toward your target.

As you get closer to your target, you will begin to reverse the process. Bring your legs up slowly back to the neutral freefall position.

As your feet come up, if your arms remain where they were, you will assume a head high position, causing you to reduce your forward speed, and you will then begin to drift backwards.

As you bring up your legs, you must also return your arms to the neutral position, to keep from backsliding away and to maintain your position.

As you extend your legs, your movement forward will start slowly. Your forward speed will increase slowly at an increasing rate until you are moving quite fast across the sky.

When you return your legs to the neutral position, your forward speed doesn't stop immediately. It will begin to slow, to slow down getting slower and slower, until your forward speed is stopped.

If you are closing the distance between yourself and your target any faster than the speed you would walk up to a person on the street, you must reduce your forward speed by extending your arms over your head with your legs up in the neutral position, until your forward speed slows to a desired closing speed. After this, return to your neutral position with your arms. Your momentum will carry you on into the target.

If you are above your target, some 10 to 20ft., but near them horizontally, you will want to bring in your arms and legs to achieve a faster fall rate until you are nearing the same level, then go back to your neutral position. Remember, like with your forward speed, after you go back to the neutral position, it will take awhile for you to slow back down to your normal fall rate. If you wish to slow faster, go out a little wider until your rate of fall decreases to the desired speed.

If you are in the close proximity to your target, but above and you try to delta down or extend your legs to fly down, you will usually over-shoot.

If you are above your target and some distance away, then your best course of action will be to straighten your legs and adjust your attitude so you are flying directly toward your target. The higher you are, the steeper your angle up to the delta position. All the time you are going straight to your target. As you close the distance, both horizontally and vertically, (across, up, and down) you will gradually return to the neutral position allowing the momentum (speed) you have built up from your

head low position to carry you into your target. As the distance closes, if you feel you are stopping, simply extend your legs slightly. If you feel you are too fast, extend your arms over your head until you feel comfortable with the closing speed.

If you are below your target, you must first get back to the same level, or a bit above your target before making any attempt to close the horizontal distance. Simply, spread out as much as needed to slow your fall rate, until you are above your target, then adjust your arms and legs to achieve the desired speed and altitude.

Being below your target is quite an undesirable place to be. It is much harder to fall up to someone than it is to fall down to someone. Unfortunately, it will take awhile to get the proper closing speed and angle, so you will find yourself below your target more often than you like. Make every attempt to stay above your target slightly.

Overshooting your target is quite common to begin with. Having too much speed and flying past your target, or sinking below your target because of excessive downward speed. Only experience will correct this problem. As on the ground, you don't find yourself walking into walls, buildings and doors, or other people, for you have found you can control your speed. However, like on the ground, if you don't keep your eyes on what you are doing, you will find yourself running into your target or overshooting. Your eyes should be divided $\frac{1}{3}$ on the altimeter, $\frac{2}{3}$ on your target.

You must be aware of what your target is doing. If you are moving across toward your target and notice that he has his legs out also, you will have twice the closing speed. So you must slow your forward speed sooner. If you are above your target in a tight body position and notice he is in a spread out position, you must slow down sooner. This is the reason most inexperienced people have a problem. They know how to fly, but fail to take into account what their target is doing.

RULES OF THE AIR

Right of way - In freefall, the lower person has the right of way. (You must yield to him). If he is moving under you it is your responsibility to not be directly over someone or anyone.

A person in the process of opening has right of way. All other jumpers should move away from them.

Under an open parachute, the lower person has the right of way. If they are going in a direction you wish to go in, you must yield to the lower parachute. If they are attempting to land where you wish to land, you must turn off and let them land.

However, just because you are low, don't assume the other people see you. If they aren't giving you the right of way, shout to them, let them know that you are there. Then save yourself.

Incidentally, it is considered gauche to spiral down below someone to get below them.

A reserve parachute has right of way over anything, and it is considered good manners to follow a reserve down to offer assistance and to watch where the main lands and help retrieve it.

BILL DAUSE, Lodi Parachute Centre

CLUB PAGES

FARM NEWS

Well, what's been happening at Duck Ends humble little DZ over the last 12 months?

Those of you who attended will know that our Annual Competition was a great success last year. The first time we have ever completed a meet and not only that, but all in one day and with more teams attending than ever before.

The general jump scene has been good too. Of course, all clubs have benefited from the excellent 1983 weather, and we were no exception with most weekends seeing jumping activity of some kind.

The Farm had representation at most competitions around the clubs last year and saw modest successes at the Headcorn LAC Meet v Netheravon. We also had a delegation of 12 people at the National Championships at Peterborough, taking part in all disciplines in the Classics and RW Competition with 11 of the 12 people taking home medals. (Guess who didn't win one!). **Cheryl Cochrane** in her first ever Classic Nationals, put on a credible performance and made a place on the British team going to the Graz European Meet. Definitely a name to watch out for in the future.

Back on our own home scene we held our first Accuracy Seminar in October. 34 people attended and all received excellent instruction from **Steve Treble**, ably assisted by **Bob King**, **Paul Cook** and **Paul Slaughter**. Only one of the two days was jumpable, but most people got in 4 or 5 jumps and all considered the weekend to have been well worth while. We hope to hold more of these in the future, probably starting in the Spring and include some style training as well.

And what of 1984 and the Farm's future. We appear to have lost our sponsor of the last 3 years so, unless we can replace that income, must rely solely on the demos that we do for finance. A grim prospect! Each year it gets more difficult to keep the place going and with a regular attendance of something like 15 people, is it worth it! We think so, the Farm is a great place to jump, so if you're Cat. 10, come and see us this year. Our jump prices are cheap and we would offer a special deal to 4-man accuracy teams wanting lots of jumps. However, don't get the impression that we are all a load of Style and Accuracy freaks - we're not. More relative work is done than anything and we have a good collection of experienced jumpers - and a nice 4 place aircraft with inflight door permanently on site.

Plans are already in the pipe line for the 1984 Duck End Meet, but as yet no date has been fixed. Keep your eyes open for it in the next issue. We can't possibly expect to achieve the same sort of success as last year, the weather is never that good more than once in any Meet Directors life, so we are going to have to set a cut of date for entry and restrict the amount of teams.

In the meantime, its down to some serious training for this years Nationals. Some of the group have made the switch to '252 Foils' in the hope of obtaining better results in this years Classics, and trips to the States and France for training are being planned.

We want our Team Trophy Back!!

JANE WATTS

KETTLEWELL HOT AIR BALLOON MEET

On Sunday 13th November six intrepid jumpers from the North West Parachute Centre at Cark made their way to Kettlewell in the Yorkshire Dales to jump the Bluebell Hotel Hot Air Balloon (GBOOZ!) and to sample the Theakstons ale. At 6.00 a.m. the conditions were ideal - clear blue skies and an almost non-existent breeze. However as the take-off deadline came closer the weather, in true form, deteriorated rapidly. The winds picked up and clouds appeared from nowhere and started to thicken. These conditions did not deter our optimism and we commenced inflation of the balloon in a 'brisk' wind. After an energetic and exciting launch the balloonists rose rapidly through a convenient hole in the clouds at over 1,000 feet per minute.

At 7,000 feet our three parachutists climbed ungainly (and anxiously!) onto the outside of the basket and prepared to leap off. After several calls of 'Ready?', they eventually reached 'Set' and 'Go' and all three departed simultaneously. **John Jackson** and **Steve Millard** were both jumping cameras and were accompanied by **Andy Sloan**. All three jumpers maintained stability despite their natural incompetence and the unusual lack of slip stream. For the first few seconds ordinary speech was possible until the airspeed built up to terminal and everything went back to 'normal'. On exit the balloon rose rapidly by 3,500 feet due to the sudden loss of ballast. Landing in the Yorkshire Dales was interesting but fortunately uneventful. Refreshments provided by a rather surprised farmer's wife were gratefully accepted and consumed.

The second take-off, in the afternoon, proved to be more leisurely and ordered than the first one. **Pete Curwin** jumped a camera this time followed by **Bryony Christopher**. Both jumpers managed very successfully to lose themselves on the dales upon landing and were eventually recovered at dusk. Everyone then returned happily to the Bluebell Hotel for refreshments 'on the house'. Many thanks are due to our pilot **Graham Tumbull** for his sterling efforts under less than ideal conditions. An experience not to be missed!

STEVE MILLARD, C5167



Exit shot from GBOOZ hot air balloon, taken by Steve Millard.

1st HONG KONG PARACHUTE CHAMPIONSHIPS

After Hong Kong's 1st participation in a competition in Malaysia last May, word got to the CCI's ear that people would like to hold a competition on their home DZ. The competition itself required a lot of planning and preparation, but eventually the date was set for the 18th/19th November and would consist of six rounds of individual accuracy jumping.

There was a very good turnout of novices, who competed in a hit and run competition, and as for the intermediate and senior jumpers, the pit was finished just in time to do the accuracy competition, but unfortunately nobody could train beforehand.

As always when the weekend arrived it was blowing a gale (the three weeks before the weather was terrific). However all the intermediate and senior jumpers managed to get five rounds in but the novices completed only one round. The competition

was therefore carried forward to the next weekend. All the novices completed their rounds and the square jumpers finished round six.

Tim Andrewes and **Kiwi Sharp** from West Germany were tying for 1st place with **Dick Kalinski** and **Karina Andrewes** tying for 2nd place in the Open Championship. In the novices **Graham Black**, **Jim Brown** and **Kevin Goode** were closely competing against each other for 1st place. **Graham Black** was the eventual winner of the novices championship, never needing more than six seconds to ring the bell. **Steward McNeish** came first in the intermediate class and **Kiwi Sharp** won the senior class with 0.09cm.

Thanks as always must go to the competitors for making it such a good meet and especially to **Haka Bahadar** who many will remember from Bad Lipp Springs in the good old days for doing a first class job as chief judge. Blue Skies....

K. ANDREWES, D 2697

**BRITISH PARACHUTE
ASSOCIATION
PI & EXAMINATION COURSE 4-83
SWANSEA PARACHUTE CLUB
SWANSEA**

7th - 18th NOVEMBER 1983

1. Introduction

The full facilities of the Swansea Parachute Club, were generously put at the disposal of the BPA for the two weeks of the Course. Accommodation had been arranged in Swansea and all meals were available at the airfield, also provided was the full use of lecture rooms and airport rooms and a ground training area.

There were 23 candidates for the Potential Instructor Course, 18 for the Examination phase, 8 for upgrading to Advanced Instructor and one for the first part of Examiner Status upgrading.

2. The Advanced Course

The eight candidates attending for upgrading to Advanced Instructor were:-

Mickey Munn	Red Devils
Dicky Bird	Red Devils
Roy Harrison	Woodvale
Martin Wilshaw	Shrewsbury
Mac McLaughlin	JSPC (N)
Jane Buckle	Headcorn
Roger Buckle	Ashford
Ian Louttit	D.I.S.C.

All eight candidates completed the syllabus as laid down in BSRs and their own personal parachuting was assessed. Mickey Munn's specialist paper was 'Public Relations', Dicky Bird - 'Style Training', Roy Harrison - 'The Organisation of a Water Descent', Martin Wilshaw - 'Introduction to Relative Work', Mac McLaughlin - 'Advanced Training Aids', Jane Buckle - 'The Public and Sport Parachuting', Roger Buckle - 'Early Relative Work, The Principles of Flight', and Ian Louttit - 'The Category System'. All candidates also presented their specialist subjects.

Mickey Munn, Dicky Bird and Ian Louttit were successful and were awarded Advanced Instructor status, Mac McLaughlin was also successful and will be awarded Advanced Instructor Status on completion of the required number of jumps.

Roy Harrison, Martin Wilshaw, Jane Buckle and Roger Buckle failed to reach the required standard and were advised to re-apply, also a

number of other recommendations were made.

3. Examiner Upgrading

Ray Ellis attended the PI and Exam Course and successfully completed the first part of the requirements needed for Examiner Status. He completed the syllabus and gave very good coaching to the PIs.

4. The PI Course

The Course was conducted by Dave Howerski, Gary Douglas, Mike Winwood, Dave Prince, John Hitchen and Tony Butler with assistance from Ray Ellis.

There were 23 candidates applying for PI status. All candidates, as well as completing the syllabus were checked out on their own personal parachuting ability and most were checked on S/L despatching, all were given a written exam at the exam at the end of the week.

The successful candidates were:-

Dave Kelly - JSPC (N), Tony Ellams - MFFC, Dave Rogers - RGJ, Phil Slattery - RGJ, Bernie Parker - RGJ, Roy Deakin - Red Devils, Jim Scarratt - Red Devils, John Turner - Red Devils, Len Lampard - Red Devils, Mick Graham - Border, Jack Shuttleworth - NWPC, George McGuinness - Woodvale, Derek Pirrie - Thruxton, Dave Spencer - Headcorn, Dave Speed - Headcorn, John Keen - Halfpenny Green, Mike Newall - Leeds/Bradford, John Ingleton - RAPA, Mick Berry - JSPC, John Saunders - JSPC, Simon Caddis - Thruxton. Results and Individual reports have been sent to their CCLs.

5. Examination Course

This was held during the second week and was conducted by Dave Howerski, Gary Douglas, Mike Winwood, Bob Harman, Rob Noble-Nesbitt, John Hitchen and Tony Butler, with assistance from Jim Sharples and Ray Ellis.

There were eighteen candidates, all were assessed on lectures, S/L Despatching, their own personal parachuting, aerial critiquing and critiquing from the aircraft, briefing and debriefing and on flight line checks. All were given a written examination and a number were assessed on briefings 11-17 in the Instructors Manual and the use of telemeters.

Twelve of the eighteen were successful and the remaining six were invited to re-apply. The

successful candidates were:-

Linda Haxton - SPC, Felicity Martin - SPC, Steve Beasant - Thruxton, Chris Clements - Thruxton, Dave Day - Thruxton, Dave Hone - JSPC (N), Bob Sturtivant - JSPC (N), Mike Berry - JSPC, Ivor Toms - Cornwall, Dave Beaven - Ipswich, Dave Ruffell - British Sky-sports, Dave McLagan - Golden Lions.

Results and individual reports have been sent to candidates CCLs.

6. Conclusions

In general the standard on the PI Course was quite high, most candidates came very well prepared for the Course and personal parachuting was of the required standard.

On the Advanced Course the candidates personal parachuting was generally of a high standard. The majority of candidates gave their presentation/lessons in an unprofessional manner, which was brought about through lack of preparation. It was felt that a number were lacking in depth of knowledge and time in the field, particularly in the areas of DZ Management and Practical Parachute Operations.

A number of candidates on the Examination Course were lacking in practical student training and this reflected in their lessons, also a number appeared to have had very little coaching during their probationary period.

7. Recommendations

1. Additional qualifications to attend Advanced Course:-

Candidates should have a minimum of three years as an Approved Instructor and should attend a minimum of two Instructor Courses after that time, the first being an Instructor Examination Course.


N.B. One of the criteria for Advanced Instructor Status is the ability to manage an active Drop Zone. Candidates should be prepared with practical experience in this aspect.

2. The Examiners unanimously recommend to STC the exemptions to act as CCI on two of the failed Advanced Candidates be withdrawn forthwith and that three of the Candidates not be permitted to re-sit for a minimum of 18 months. These recommendations were taken after many hours of consideration and thought.

3. The following PI ratings be extended until May 1984:-

David Hallam, Alex Jackson, Les Carroll and Derrick Grieve.

TONY BUTLER, JNC SO



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BPA OPERATIONS MANUAL

As everyone is now aware parachuting will shortly become LEGAL without the need for an exemption. This can only be carried out by an enactment via the Privy Council which will amend Article 39A of the Air Navigation Order. The outcome will be that in future the Civil Aviation Authority will issue a 'PERMISSION' and not an exemption. In order for this to be carried out there has to be an accepted Parachute Operations Manual, (in reality the BSRs and Display Manual with one or two additions).

Due to the imminence of the meeting of the Privy Council, the details were talked out and agreed at a meeting between the representative of the CAA, and the BPA, (J.T. Crocker, J.R.H. Sharples, A.K. Butler, J.H. Hitchen and W.J. Meacock) the Council having previously authorised the Chairman and others to finalise an agreed draft. In order to obviate any legal wrangles it was absolutely necessary to change the name of the Rules and Regulations and the Display Manual to BPA Operations Manual. This has now been 'accepted' by the Civil Aviation Authority. Copies of the 3rd Draft and Amendments to BSR's since the last printing in May 1983 are enclosed, and in future will be known as BPA Operations Manual.

RAMIFICATIONS FOR CLUBS

In all probability the change will take place from 5th January, 1984. At that time all exemptions will become null and void. In order to continue parachuting operations a 'Permission' must be obtained from the CAA.

To facilitate the smooth change over the CAA will send ALL AFFILIATED CLUBS and TEAMS an application form. This must be filled in as soon as received and must be accurate and returned to the CAA immediately. The CAA will then hold these forms (after checking with the BPA that the Clubs and Teams concerned are indeed affiliated to the BPA) until the change over date when the permissions will then be sent out to all those accepted by the CAA.

IN ADDITION

It will be of the **UTMOST IMPORTANCE** that all Clubs send in their ANNUAL RETURNS to the BPA by the 31st January 1984 at the very latest, but preferably by 5th January 1984 (unless already submitted).

If the Annual Returns are:

- (a) not submitted within this time frame or,
- (b) discovered to be knowingly inaccurately compiled.

Operations will run the risk of disaffiliation from the BPA and their 'PERMISSION' from the CAA not being granted.

C.W. PORT
per pro Council BPA, dated 19.12.83

BRITISH PARACHUTE ASSOCIATION SAFETY NOTICE

1. An incident occurred where a jumper, jumping a conventional, one pin, student free fall rig had a total malfunction, when the pack refused to open after the ripcord had been pulled.
2. The cause of this incident was that the closure loop was made from heavy weight 'Cloud' line and because of extreme cold had frozen at a 90° angle preventing the pack from opening.
3. It is recommended that all ripcord loops should be checked and that nylon loops should not be made from anything other than, gutted 550lb line or equivalent. (When being used with zero grommets).
4. It is worth remembering that all loops, if damp are liable to freeze in the extreme cold.



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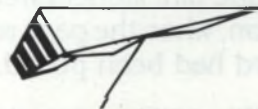
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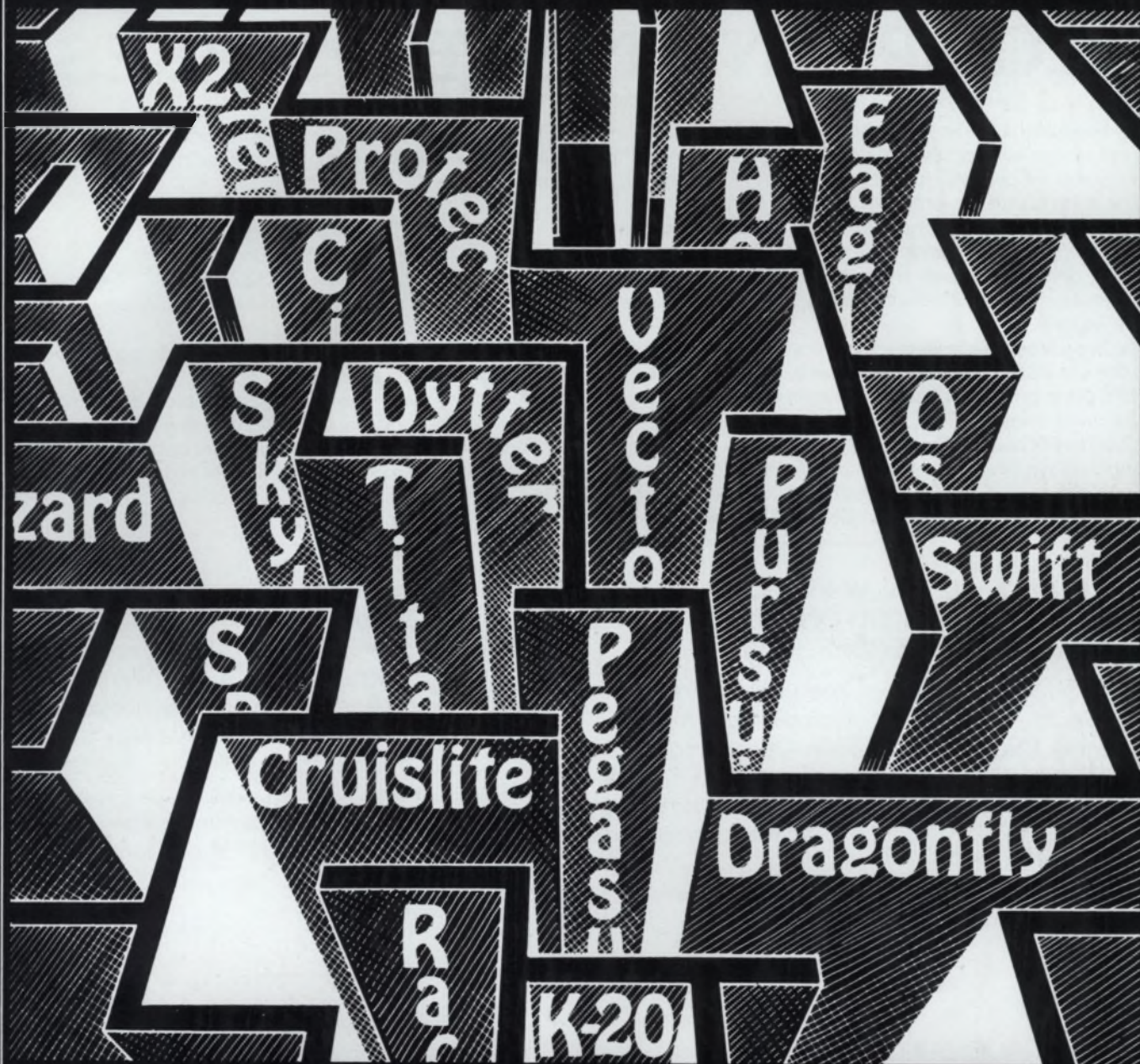
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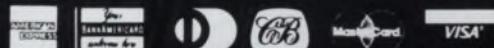
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SKYDIVING MAGAZINE WILL GIVE AWAY OVER \$4,000 IN FREE EQUIPMENT IN SWEEPSTAKES

Skydiving Magazine has launched its "Go For It" Sweepstakes and the winner will receive a complete set of custom gear - free. The contest is open to jumpers around the world, and no purchase is required to enter.

The lucky first-place winner will pick a harness/container, main canopy, reserve canopy, jumpsuit, helmet and altimeter from any of those currently manufactured in the United States. The brands, models, colours and other options are all selected by the winner.

The five second-place winners will receive a custom jumpsuit, with the brands and colours being picked by the winners.

Third-place prize is an Altimaster II altimeter by SSE, Inc. Ten will be given away.

Publisher **Michael Truffer** explained the reason for the contest. "Jumpers have been very supportive of Skydiving since it was first published in 1979. Giving away over \$4,000 in equipment is a good way to show our appreciation for that support."

Entering the sweepstakes is easy. Complete rules and entry blanks will be printed in many parachuting magazines. Or, you can write:

**Skydiving Magazine
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Deltona, FL 32728 USA**

An entry blank and a copy of the rules will be promptly mailed back to you.

All entry forms must be returned to Skydiving by August 31, 1984.

Truffer also said, "We welcome all entries. You don't have to be a subscriber, and you can enter as many times as you wish."

Skydiving is a monthly magazine that publishes news on the equipment, techniques, events, people and places of parachuting. Its address is P.O. Box 189, Deltona, FL 32728 USA.

INTERNATIONAL 12-WAY RW COMPETITION R.A.F.S.P.A. WESTON ON THE GREEN 1-3 SEPTEMBER 1984

RAFSPA Weston on the Green will be hosting an International 12-Way RW Competition from 1-3 September 1984, using a Twin Otter aircraft. The competition will be run in accordance with FAI rules with the exception that the judging will be carried out, using air to air video in conjunction with conventional judging methods.

There will be opportunities for anyone interested in gaining experience of both competition judging to

FAI rules and the use of competition judging using air to air video equipment.

Those interested should send their names and addresses to **Michael Boys**, 2 Park Avenue, Off Bury Street, Ruislip, Middlesex, HA4 7UQ, not later than 1st June. Anyone wishing to participate as to air to air video cameramen will be required to send names and addresses, along with a summary of their skydiving and air to air video-ing experience. They will also be required to attend a weekend seminar prior to the competition, the date of this seminar is yet to be decided.

TONY BUTLER, JNC SO

QUALIFICATIONS FOR A BPA ADVANCED INSTRUCTOR

Should now read:-

1. All the qualifications laid down for BPA Approved Instructors.
2. Must be recommended by CCI, have been an Approved Instructor for at least three years, have done 500 plus jumps and must attend a minimum of two Instructor Courses after that time, the first being an Instructor Examination Course. Must have been involved in the organisation and taken part in a Water Jump, Night Jump, Demo and Cutaway before attending the first Course, and on either course can be asked to:-
3. (a) Organise and give a brief for a Water Jump, Night Jump and Demo.
(b) Brief on a first square jump, first HP round, first RW jump, Cutaway drills and brief for training a jump pilot.

- (c) Give a DZ Management Lecture.
- (d) Give an Incident Procedure Lecture.
- (e) Submit a written paper on an Advanced subject and may be asked to present the paper.
- (f) Critiquing Pls.
- (g) Run a Parachuting Programme.
4. **Method of Qualification:** A Potential Advanced Instructor must submit proof of the above (2) during his/her attendance at the aforesaid Examination Course. The application must be countersigned by two members of the Panel of Examiners, certifying the candidates suitability. Should a query be raised, the STC reserve the right to request a personal appearance of the candidate at a meeting of the STC.

N.B. One of the criteria for Advanced Instructor Status is the ability to manage an active Drop Zone. Candidates should be prepared with practical experience in this aspect.

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(Barbeque and jumps) £25 per head.
Medals and liquid prices.

Registration, briefing, docs etc 2000
hours Friday 7 Sept. (team captains must
attend).

Formations - Star, Donut, Marquis
Chinise T.

Show formation anyway within 5 secs.
All FAI Rules.

CHAIRMAN'S REPORT

I would first like to extend to you all a hearty welcome to this the seventeenth Annual General Meeting of our Association.

It is a great pleasure to see many old and new friends and to see so many of you continue to support our Annual General Meeting.

My report will, I hope, show the enormous efforts that have been made by your elected Council during the past twelve months in:-

1. Maintaining the growth and financial stability of the Association.
 2. Attempting wherever possible to support its members individually and its clubs/centres and competitive teams collectively.
 3. Preparing the Association for the very major changes which are about to take place in respect of:
 - (a) The statutory requirements governing sport parachuting in the United Kingdom.
 - (b) The criteria for seeking continued financial support from the Sports Council.
- I will return to these subjects later in this report.

1983 imposed an extremely heavy workload on the full time administration and upon your elected Council.

Both these arms of the Association faced up to their responsibilities. A great deal of time and effort way beyond the call of duty, both paid and unpaid, saw all the problems as well as the administration being dealt with, efficiently and, I hope, to the best advantage of the Association.

In order to continue to be viable as a governing body, it is vital that the financial security of the Association is preserved. This, of course, can only be achieved with the assistance of all its members. It must be remembered that a major part of the Association's income is derived by way of membership fees. The stronger financially the Association becomes the more it is able to support clubs/centres and competitions etc.

Unfortunately during the latter part of 1983 a number of clubs indicated their intention to withdraw support from the P6 Membership Scheme. Two main reasons were given. One was that it was considered that P6 Membership be compulsory for students being trained at affiliated clubs and centres. The other reason was that the initial cost of P6 Membership was too great.

In view of the genuine concern expressed by clubs/centres and members alike, your Council responded by convening a Special Council Meeting at which it was resolved that P6 Membership would become mandatory for students trained by affiliated clubs by no later than the 1st January 1984. At the same time Council reduced the P6 Membership fee to £1.50. In order to offset a small part of the cost involved in reducing P6 Membership the free distribution of 'Sport Parachutist' to affiliated clubs was discontinued.

In any event, it was considered that the free distribution of the magazine had not achieved its primary objective of encouraging a greater retention rate in the sport.

Council's two pronged decision has received enormous support from clubs/centres and individuals alike.

As a result I am extremely pleased to report that those clubs that had or were considering withdrawing from P6 Membership have now agreed to resume and or continue supporting the Association with such membership. I am also very pleased to report that a number of clubs/centres who have not previously supported the Association with P6 Membership have now elected to do so quite voluntarily. This is a major step forward which will greatly benefit the Association and my thanks go to all those instrumental in achieving this situation.

You will find attached at Appendix A membership statistics which show the trends over the past five years and during 1983 in particular.

I now turn to the proposed changes in legislation, which will result in affiliated clubs to the Association receiving permissions under the New Article 39A of The Air Navigation Order 1980 (as amended) to enable sport parachuting to be carried-out. An exemption from the provisions of the Air Navigation Order to enable parachuting to take place will no longer be required.

Incorporated into the permission granted by the CAA will be an exemption from Article 91 of the ANO from the requirements that apply to flights for the purposes of public transport of passengers. This exemption is necessary in order to avoid any suggestion that your pilots and aircraft operators are breaking the law insofar as it relates to public transport flights.

The latest news that we have from the CAA is that the Air Navigation (Second Amendment) Order 1983 was made at a meeting of the Privy Council on the 21st December 1983. It is anticipated that the amending order will be laid before Parliament in the immediate future and subject to its approval the provisions which affect us, i.e. Article 39A, are likely to come into operation on or about the 30th January, 1984.

The Civil Aviation Authority will shortly, if it has not already done so, be circulating an explanatory letter to all present holders of exemptions.

All affiliated clubs and registered display teams will have no difficulty in obtaining their 'new' CAA permission.

Any clubs or display teams which are not respectively affiliated or registered with our Association will need to produce a very comprehensive operations manual to the CAA. It will then be a matter for the Authority to decide whether or not to grant a permission.

Where the Authority is in any doubt it appears most likely that they will be

asking us to assist with technical advice.

I understand from the Authority that the new permission and exemption documents will be granted to suitable applicants in the following periods of validity:-

1. Established BPA affiliated organisations 3 years.
2. Newly formed BPA affiliated organisations 1 year.
3. Any non BPA affiliated organisation 1 year (in relation to the latter it would have to produce a satisfactory operations manual to the CAA before a permission could be granted).

The new Council will, I am sure, be arranging for immediate circulation to all clubs/centres and registered display teams of the draft documents which have thus far been produced by the CAA in consultation with ourselves.

In the meantime what I would like to emphasize to you all is the vital importance of responding to the CAA with your application forms as soon as you receive those. Any failure to respond by return could result in a parachuting operation becoming 'illegal' between the date the new Article 39A comes into operation and the receipt by you of the new permission issued pursuant to that Article.

At this juncture I feel bound to express on behalf of the Association our very grateful thanks to all those at the CAA without whose help, guidance, assistance and above all enormous degree of co-operation the legalising of sport parachuting could not, and probably would not, be about to take place with such a smooth transition. Particular thanks are due to **Mr. Trevor Campbell**, Director, Operations Planning and Development, **Mr. Maurice Gamester**, Deputy Director, O.P.D., and our very good friend **Frank Cattle**, the latter having admirably fulfilled the role vacated by **Gordon Robinson** on his retirement.

Another major change facing the Association is the new approach by Sports Council to funding all national sporting associations. Our Treasurer, **Mr. Peter Ritchie**, will be giving a substantive report on the changes in funding, and I will only touch on the subject in this report.

Putting it very simply, the Sports Council will not be making any grant Aid towards core administration as they do at present.

We have been invited by the Sports Council to submit a five year development plan, so that they can consider how best we can be funded over the five year period, or possibly a longer period, but with a view to our Association becoming self-financing.

As I say, **Peter Ritchie** will expand more on this topic, but before I depart from it I would like to pay very special tribute to **Danny Hennessy** who in chairing the Development Committee has carried-out a first class job. **Danny's** task in preparing the structure for a five year plan has been both enormously complicated and extremely time consuming. Whilst **Danny** has been ably assisted by his Committee I am bound to express on behalf of us all a very special vote of thanks to **Danny**.

During the course of 1983 the Safety and Training Committee has again been ably chaired by **Jim Sharples**. I must express thanks not only to **Jim** for his chairmanship but also to all those chief instructors who willingly give up their free time to attend the monthly meetings.

Thanks must also go to our Treasurer and Chairman of the Finance Committee, **Mr. Peter Ritchie**. We have benefitted greatly from **Peter's** financial expertise and who with the very able assistance of the Secretary General has succeeded in keeping overheads to a minimum and in certain areas actually making economies.

Your Council has decided, after extremely careful deliberation and receiving detailed advice from the Treasurer and his Finance Committee, that it would be financially advantageous for the Association to purchase its own property rather than continue to lease. There are a number of important factors which have to be taken into account, and these will also be dealt with by **Peter** in his Treasurer's report.

This last year has seen a change in the chairmanship of the Competitions Committee, which in the event has been extremely well led by **Sean Lamb**.

Neither **Sean** nor the rest of Council has been insensitive to the differing views of our members in relation to the official world relative work championships held in Bophuthatswana and the international competition held in Canada. A decision had to be made as to which of the two competitions should be supported and it is now an historical fact that we found ourselves unable to support the official world championship but instead supporting the international Canadian competition.

We were represented in Canada by a four way and eight way team which earned fifth and seventh places respectively.

In the official world championships, whilst we were not represented by competitors, we were honoured by virtue of the fact that the Chief Judge was **Charles Shea-Simonds**, **Martin Rennie** was a Principal Judge and **John Laing** was the Primary Video Operator. The Championships were well attended with the Swiss taking the four way title and Visions of the United States taking the eight way title. The standard was extremely high and I hope by the AGM to provide further details.

Our Style and Accuracy Team travelled to Graz and at home our National Relative Work and Classic Championships were held at the Peterborough Parachute Centre by kind permission of **John Meacock**. The Canopy Relative Work Championships were held at Netheravon by kind permission of **Gerry O'Hara**. Out thanks must be extended to **John** and **Gerry** for allowing us to carry-out our national championships at their centres and to all their staff who very substantially contributed to the championships being so successful (weather apart at Netheravon). Thanks must also go to those judges and officials without whom the championships could simply not take place.

You will, I am sure, also join with me in thanking all those clubs who have taken the time and trouble to run their own competitions which were extremely valued

and appreciated by all those who took part.

You will, by now, all be aware that **Jane Watts** was appointed Club Representative, a task to which she has responded enthusiastically. Our thanks go to Jane for fulfilling her task so well.

On a personal note, I must thank each and every member of Council for the support and advice given throughout the year.

I would also like to give special thanks to our Vice Chairman, **Lofty Thomas**, who has in particular been a pillar of support.

We continue to be represented on the Council of the Royal Aero Club. The Club is our link with the FAI. It also makes awards to those of our members who qualify. We are also represented on the Club's Parliamentary Committee, which from time to time has access to government at ministerial level.

Recently weighted voting was re-introduced into the Club, so that large associations, such as ourselves, have three votes, and smaller associations who also contribute less financially, have either two or one vote. During 1983 two of our members received high Royal Aero Club and FAI awards respectively.

The BPA shop has been franchised out to Kaleidoscope which is a business run by parachutists. An initial six month trial venture has been agreed for this project. If successful, it is hoped that more permanent staff time will be released for the benefit of our members and the service provided by the BPA shop will be improved as a result of the same being run by professionals, rather than the shop being contained within the BPA office. It is hoped that the range of articles on offer to the membership will be increased.

Dave Waterman has continued to produce 'Sport Parachutist' throughout 1983, whilst being assisted by his editorial and advertising staff. The magazine continues to maintain a high standard and thanks must go to all those involved in its editing and production.

As the Treasurer will be reporting to you in more detail your Council had resolved that the magazine must become completely self-financing in order to strengthen the economies already being made in core administration.

I must pay tribute to the enormous work-load carried by our permanent staff. Our Secretary General, **Charles Port** and our two National Coaches and Safety Officers, **Tony Butler** and **John Hitchen**, give their all in working way beyond the call of duty. We should be extremely grateful to them. **Charles Port** runs the administrative side of our Association, whilst being ably assisted by **Sue, Trudy, Debbie** and **Mrs. Mantykiewicz**.

On the technical side, **Tony** and **John** have looked after the needs of our clubs, competitions and given advice where required. As a result of their hard work and quite in addition to their daily routine, they have also run four potential instructor, four advanced and four examination courses during the year, which resulted in a substantial increase in potential instructors, approved instructors, advanced instructors and examiners.

On behalf of the Council and of you all, I express a very sincere vote of thanks to each and every member of our staff.

In conclusion, can I thank all our members without whose presence, let alone contribution, our Association would not be as strong as it is today. Thank you all very much indeed.

CHAIRMAN

BRITISH PARACHUTE ASSOCIATION TREASURER'S ADDRESS AT ANNUAL GENERAL MEETING 7th JANUARY 1984

Good afternoon Ladies and Gentlemen. One of the tasks of the Annual General Meeting is to fix the subscription rates for the coming financial year starting 1st April and it is my job to explain to you your Council's recommendations.

The income of the Association is not derived purely from subscriptions but, in the past has been substantially boosted by funds from the Sports Council, both for routine functions such as administration, coaching and salaries, and for specific purposes, for example, training for, and participation in, World and European Class International Competitions. The whole basis of our claiming these funds is, however, shortly to change. The emphasis is to change from what the Sports Council refer to as 'core administration' to fulfilment of stated objectives as set out in the development plan explained to you by **Danny Hennessey**. In the coming year, as an interim measure, we are to receive the same amount as the current year although without any specific allocations. We are, therefore, taking the opportunity to rationalise one or two aspects of our finances.

In looking at the financial situation of the Association, there are two main factors that draw attention in any given year's accounts. These are the surplus or deficit, i.e. the balance between income and expenditure for the year and the net worth of the Association, that is to say, what would be left in cash if all the assets were sold and all debts, such as they are, paid. Taken in isolation, both these figures can be misleading. A substantial surplus may indicate a 'windfall' of unexpected income whilst a deficit may be because of routine expenditure exacerbated by inflation. The size of the 'net worth' figure may not necessarily indicate that the Association is wealthy.

Perhaps I could take this opportunity to remind you that the actual audited accounts to 31st March 1983 have already been adopted at the Extraordinary General Meeting held in October. This is necessary because Company Law requires that they be adopted within a certain time scale. Part of the problems in forecasting the financial requirements of the Association result from the timing of our accounts which end at the Sports Council year end of 31st March although we are not able to take any action on subscriptions resulting from these accounts until nearly a year later following the next A.G.M. However, with the help of the forecasts prepared by the Secretary General (a task at which he is becoming daily more proficient!) we are now much better informed. We have now revised the arrangements for the four monthly management accounts which proved in the event to come out at inconvenient intervals and we have now revised these to one six monthly set halfway through the accounting year. Looking at the subscriptions for the coming year it seemed to us that too large an increase would not be acceptable to the membership in general and that we should seek to make some economies at the same time. We have, therefore, cut Council expense allowances, imposed a cash limit on the amount spent on international competition and made the magazine self financing. Taking these factors into account we propose a renewal subscription of £16.50 against the present figure of

I therefore propose formally that the renewal subscription be increased to £16.50 and may I continue my plea to members to use the direct debit facility to reduce costs to the Association. I would now be happy to answer questions.

PETER RITCHIE
Hon. Treasurer



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Present:

J.T. Crocker Chairman BPA
 J.L. Thomas Vice Chairman BPA
 P.W. Ritchie Chairman Finance Committee
 J.R.H. Sharples Chairman Safety & Training Comm
 S.D. Lambe Chairman Comp. Committee
 D. Hennessy Chairman Development Comm
 J. Watts Club Representative
 B. Dyas S. Brearley
 L. Melville G. Lilly
 R. Colpus G. O'Hara
 R. Hiatt

Observers:

Miss C. Clements, Mrs G. Thomas, Mr. Gardner, Mr. Makepeace, Mr. J. Curtis, Mr. Mobbs, B. Nelson-West.

Apologies: J. Walmsley

In Attendance:

A.K. Butler - JNC SO BPA, J.H. Hitchen - JNC SO BPA, C.W. Port - Sec. Gen. BPA.

Item 65/83 - Minutes of Previous Meeting

The Chairman J.T. Crocker asked that it be noted that his absence from the meeting of 27th October was due to his attendance at Kensington Palace on BPA business.

It was proposed by R. Colpus and seconded by L. Melville that the minutes of the meeting of the 27th October 1983 be accepted as a true record.

UNANIMOUS

Matters Arising**(a) Sales Franchise**

The operation was now under way and Kaleidoscope had presented to the Finance Committee a list of projected prices increases. This had been discussed at the last Finance Meeting. The Committee felt that the increases were justified, and that the company should be allowed to continue its operation, as previously agreed by the Council of the BPA, with the Secretary General and that Committee monitoring the situation.

AGREED

Sean Lambe asked that it be specifically noted that he considered the price increases to be quite outrageous and unnecessary. Sean's comment was noted by Council but nonetheless it was agreed that the price increases were fair and that at the very least Kaleidoscope should at least be given the initial 6 months trial period.

AGREED

(b) Office Accommodation

The building which was under consideration had now been sold. It was stated again that the present lease on the building should be assigned prior to buying a freehold property. However the Secretary General had information regarding some centrally located premises which were on offer at £28,500.

To date he had been unable to inspect these premises but would do so as soon as possible and present a package to the incoming Council of 1984 at the first substantive meeting of that year. It was generally agreed that if the building were suitable and Council decided to buy, it might be possible to pay outright from funds available, and agreed a compromise with MEPC on the disposal of the present lease.

(c) East Coast Loan

The Secretary General was pleased to report that the telemeters had been purchased from East Coast and a cheque for the loan outstanding paid into the Associations account.

(d) Distribution of Minutes

Council and other important minutes would now be distributed to all interested parties and sub-committees concerned.

(e) Kicker Springs

The Company had been contacted and had agreed to carry out the modifications.

(f) Dunkeswell

The situation at DISC had now been satisfactorily regularised.

(g) Riggers Course Payment

It had been agreed by Council that a grant of £10 would be paid to riggers attending authorised courses, and that examiners would be paid as PI/Examiners on Coaching Courses.

Item 66/83 - Extraordinary Council Meeting

It was proposed by P.W. Ritchie and seconded by D. Hennessy that the minutes of the E.G.M. of 27th October 1983 be accepted as a true record.

UNANIMOUS

Item 67/83 - Committee Reports**1. Safety and Training Committee**

The Chairman of the Committee, J.R.H. Sharples presented the minutes of the meeting of 24th November and invited comments.

There was one item which aroused some contention, BSR's PART 2, APPENDIX A.

Qualifications for a BPA Advanced Instructor.

S.D. Lambe said that the rule where a person has to be an Approved Instructor for 3 years would create problems for the Service Clubs, who had to obtain their personnel on shorter periods than 3 years.

The Chairman of STC pointed out that the decision had been subject to careful deliberation for over a year with Examiners invited to provide input.

There was considerable discussion on this subject and it was finally proposed by P.W. Ritchie and seconded by S. Brearley that the Change of BSR, Part 2, Appendix A, Qualifications for a BPA Advanced Instructor be accepted as written.

For 8. Against 3, Abstention 2. CARRIED

A rider was suggested by the Chairman, J.T. Crocker, that the JNC SO's meet with S.D. Lambe to see whether any form of accommodation could be reached.

Proposed by J.R.H. Sharples seconded by D. Tylcoat that the STC Minutes of 24th November be approved.

CARRIED

2. Competition Committee

The Chairman, S.D. Lambe apologised for the lateness of the minutes but the meeting had only been held on 5th December (Minutes Attached).

Item 5

Council approved the suggestion for payment for Potential Judges, and lectures. The Minutes were approved.

3. Finance Committee

The Chairman, P.W. Ritchie presented the minutes of the Meeting of 28th November 1983 (Minutes Attached).

(1) Office Accommodation - Disposal of Lease

The Secretary General was to write to the agents to request an itemised account of any out of Pocket Expenses over £15.

(2) Four Monthly Accounts

It was agreed to stop the four monthly management accounts and change to a 6 monthly system.

(3) Cost Cutting/Budget Update/Membership Increases 1984

The above items were the subject of considerable discussion and all points were agreed to by Council.

Proposed by P.W. Ritchie and seconded by G. Lilly that the minutes of the Finance Committee Meeting of 28th November be approved.

CARRIED

4. Development

D. Hennessy gave a brief statement on the progress of the plan to date, and his intention to incorporate some of the suggestions called from the questionnaire. He said that it would take too long to go into lengthy discussion at the moment but would have a framework ready for presentation on the day of the Annual General Meeting.

One item which aroused considerable interest was the request for more information on the reporting of accident incidents.

After much discussion it was agreed that there could be information given in the magazine but under the strict control of the Chairman of STC and JNC SO's and that the reportage should be general not specific.

A vote of thanks was given to D. Hennessy for his efforts to date.

5. Royal Aero Club

W.J. Meacock, on very short notice, had agreed to attend the last meeting of the RAeC which had been called to discuss the question of HIRE and REWARD. It was felt at this time that the report should be sent to all Clubs and Pilots Committee. It was also requested that people be reminded that if they felt they could help the Pilots Committee they need only contact John Ball.

A formal vote of thanks was recorded to W.H. Meacock for agreeing to represent the Association at such very short notice.

Item 68/83 - BPA Progression Courses

R. Colpus had submitted a very comprehensive paper on this subject. There was considerable discussion on the matter and it was finally agreed that R. Colpus should run a pilot course at the cost described. (£200 Maximum) and then views and reports be analysed before any further courses were authorised.

Item 69/83 BPA Involvement in Member/Operator Disputes

S. Brearley gave the Council a brief idea of some problems which had been put to her as a Council Member and asked whether the BPA should become involved.

There was considerable discussion on the subject but in

the final analysis it was felt that the Association, as a Corporate Body, could not and should not become involved in member/operator disputes. But it was reiterated that if people had problems that could, as always, approach the BPA to ask if help could be given and as has always been the case, each would be treated on its merits.

Item 70/83 - BPA Operations Manual

The Chairman J.T. Crocker introduced the subject by explaining the reasons and needs for the above.

- For some time moves had been afoot to make parachuting legal. Thus following an amendment to Article 39A of the Air Navigation Order, the Civil Aviation Authority (CAA) would no longer issue exemptions but PERMISSIONS.
- In order for this to be done there had to be a definite volume from which to work. This was to be the BSR's and amendments, plus the Display Manual and a few additions prepared in consultation with the Civil Aviation Authority (CAA).
- The CAA had suddenly been confronted with a situation where within a matter of days the Privy Council were to move an enactment changing the law to this effect.
- In order to ensure the continuation of Sport Parachuting after 5th January 1984 the manual etc. had to be agreed and accepted under consultations with the BPA and CAA.
- J.T. Crocker, J.R.H. Sharples, J.H. Hitchen and A.K. Butler had earlier been authorised by Council to finalise the drafts.

6. In order to obviate legal complications it was imperative that the name be changed from BPA Rules and Regulations to BPA Operations Manual.

7. It was proposed by J.L. Thomas and seconded by G. Lilly that:

The name BPA Operations Manual be adopted, that the amendments to BSR's currently made, and the draft agreement between the BPA and CAA be accepted.

CARRIED UNANIMOUSLY

N.B. This and the following information has been circulated to all Clubs and Teams.

In order to facilitate the smooth change over on 5th January the CAA would send to all affiliated clubs and teams on application, this had to be filled in accurately and returned as soon as possible to the CAA. The CAA would then contact the BPA to ensure that the applicants were bona fide affiliated clubs and teams. When this had been done PERMISSIONS would be sent to those concerned by the CAA.

It was agreed by Council to re-iterate the following, that in addition "It will be of the UTMOST IMPORTANCE that all operations send in their ANNUAL RETURNS by 31st January 1984 at the very latest, but preferably by 5th January 1984 (unless already submitted).

If Annual Returns are:

- Not submitted within this time frame
- discovered to be knowingly inaccurately compiled, Operations will run the risk of disaffiliation and their PERMISSION not being granted.

CARRIED

Item 71/83 A.O.B.**1. Video for BPA**

D. Waterman had submitted a paper proposing an Audio Visual presentation to be given to students.

It was agreed to ask D. Waterman if he could present this at the Instructors Convention and at the first substantive Council Meeting of 1984.

Item 72/83

The Chairman was pleased to report that several clubs which previously had not put their students via the P6 System and/or had withdrawn this support, were now prepared to do so. The Chairman wished it noted how much the Council appreciated their co-operation and support: Swansea - DISC - Peterborough - London Parachuting - South Cotswold - Ashford - Ipswich - Hereford.

Item 73/83 - Passenger Liability Insurance

Mr. Gardner wanted to bring to Councils and the memberships attention that there is no legal requirement for aircraft to carry passenger liability as distinct from third party liability which is mandatory at law.

Mr. Gardner said that he had found out that some Clubs did have passenger liability cover at a very minimal cost.

The Secretary General was already in the process of going to the market to discover if a 'package' could be arranged for clubs to take up. It was re-iterated that aircraft from which members parachute may not have passenger liability cover and it is up to the member to decide whether they want to fly in those aircraft or not.

The Chairman thanked the Secretary General, Coaches and Staff for the work carried out in 1983, he also thanked the members of Council for their support and advice, especially those who headed and worked on the Committees.

**BRITISH PARACHUTE
ASSOCIATION
SAFETY AND TRAINING
COMMITTEE MEETING
24th NOVEMBER 1983
THE POST HOUSE, LEICESTER
19:00 HOURS**

Present:

J. Sharples	Chairman	STC
J. Meacock		P.P.C.
D. Hicking		B.P.S.
D. Parket		Headcorn
R. Ellis		L.I.F.F.T.
M. Winwood		Co-opted
G. Lawry		R.N. & R.M.S.P.A.
G. Douglas		R.G.J.
G. Evans		T.P.A. & S.S.S.C.
J.L. Thomas		Riggers
J. Lines		M.P.C.
T. Knight		Ipswich
P. Mercer		Lincoln
J. Chandler		Silver Stars
D. Fisher		Barnstormers
P. Hick		Paraclan II
R. Harrison		Woodvale
M. Wilshaw		Shrewsbury
D. Howerski		Swansea
M. Bolton		Cornwall
B. Bias		Thrupton
B. Jones		Leeds/Bradford
B. Harman		Red Devils
I. Louttit		D.I.S.C.
L. George		London Parachuting

In Attendance:

J. Ball	Pilots Committee
J. Hitchen	J.N.C.S.O.
T. Butler	J.N.C.S.O.

Apologies for Absence:

M. Mortlock, D. Prince, B. Souter, J. Diamond, P. Walters.

Observers:

Approximately 50 observers were present.

The Chairman informed the Meeting that he had, had a number of CCI's nominations for the **Mike Forge Trophy**, but if there were any more to come, they should be sent to him as soon as possible.

Item 1 - Minutes and Matters Arising from STC 20th October 1983.**1.1. Ian Louttit**

The chairman informed those present that Mr. Louttit had attended the last Instructors Course at Swansea and had been awarded Advanced Instructor Status, so now this matter had been resolved.

3. Special Sub-Committee Meeting 5th October 1983

It was pointed out by J. Lines that STC had decided to make all the proposals mandatory with immediate effect, except number 3 (concerning novice parachutists above 12½ stone) which would be mandatory from 1st April, 1984. The minutes to be changed to that effect.

JNCSO

6.2. Sellings

This Drop Zone was checked by J. Hitchen as requested by STC and in his opinion there was an unacceptable Water Hazard on the site. The request to have this DZ cleared by STC, has since not been pursued.

JNCSO

7.1 Drop Zones

J. Hitchen had visited the Drop Zones as requested by STC. As in his opinion Burrington Moore would make a suitable Drop Zone for a student operation.

It was proposed by D. Howerski and seconded by G. Douglas that Burrington Moore be cleared by STC as an unrestricted Drop Zone.

Carried Unanimously

JNCSO

The second Drop Zone, Waybarton was also checked by J. Hitchen and in his opinion it was suitable for 'C' and 'D' Certificate holders only. This was unanimously agreed by STC.

JNCSO

It was proposed by A. Chandler and seconded by B. Harman that the minutes of the meeting of 20th October 1983 be accepted as a true record.

Carried Unanimously

Item 2 - Approval of Riggers Committee Meeting of 20th October 1983

Some discussion took place on item 2 concerning the S/L Bag that was destroyed causing a canopy to streamer, it was believed that the apex of the canopy had pushed through the hole in the top of the bag and it was felt that those operating this type of bag should be aware of the situation and to ensure that either the hole is covered or the apex is not permitted to go through the hole when packing the bag system.

J. Curtis informed the meeting that BPA Council had agreed to an allowance of £10 for each person on the Riggers Course at Ipswich as per the Instructors Courses, even though it was not included in Council Minutes.

It was proposed by G. Douglas and seconded by J.L. Thomas that the minutes of the Riggers Meeting of 20th October 1983 be approved.

Carried Unanimously

Item 3 - Qualifications to Jump Ram Air Canopy - M. Mortlock

Mr. Mortlock was unable to attend the meeting, but L. George was there to present the paper (already distributed). After some discussion it was proposed by D. Howerski and seconded by B. Harman that the qualifications needed to jump Ram Air Canopy brought down from Category 9 to Category 8.

Carried Unanimously

JNCSO

(Full copy of amendments to BSR's attached)

J. Meacock stated that he would like BPA Council to consider support to clubs in the purchase of suitable tandem systems and for the BPA to produce and distribute a short manual on training and handling notes for tandem equipment and the parachute that goes with it.

BPA Council

Item 4 - Instructor Course 4-83 (Report with these minutes)

The Chairman stated that as there were a number of recommendations that concerned individuals, and in fairness to those concerned, he asked that all observers leave the room.

The recommendations were discussed in great detail and on Recommendation 2, two of the failed candidates, R. Harrison and M. Wilshaw were present to put their cases for not withdrawing their exemption to act as CCIs, which they did, they were then asked to leave while STC continued to discuss the proposals in a great more detail.

It was finally proposed by D. Parker and seconded by G. Douglas that all the recommendations of the Examiners be accepted.

Carried Unanimously

JNCSO

(Changes to BSR's attached to these minutes)

It was also requested by STC that any Advanced Instructor who could help out R. Harrison as CCI should get in touch with him.

All Advanced Instructors

M. Wilshaw and R. Harrison were asked to return and were informed of STC decision.

Item 5 - Tony Knight's Rigging Manual

Copies of the Manual had been sent to all CCI's and it was felt that it was an excellent manual and that when finalised would be incorporated in the Instructors Manual.

JNCSO

Item 6 - Incident Reports - Resume

There were only one incident report to mention at STC. The incident occurred at Halfpenny Green. A student being despatched on his second free fall jump, a three second delay. He came in for the pull, removed the handle from the pocket and lost his grip on it. The student deployed his reserve and was under canopy within 5 seconds of leaving the aircraft. He landed in the market area causing slight injury to a stallholder.

JNCSO

Item 7 - Exemptions

1. S. Russell of Martlesham Parachute Club had requested an exemption to act as CCI for C & D Certificate holders only. A good deal of discussion took place and it was proposed by T. Knight and seconded by J. Meacock that this exemption should be granted.

For 12, Against 3, Abstentions 4. Carried.

JNCSO

2. Montford Bridge Drop Zone

The Chairman reminded everybody that in November 1980 the then National Coach and Safety Officer, Doug Peacock, had approved the airfield at Montford Bridge for all categories of parachuting.

There were now planning difficulties at Montford Bridge and it was being suggested that the airfield did not comply with BSR's. Plans of the airfield were presented to the meeting. Mr. J. Hitchen, JNCSO had recently visited the site and reported on his visit.

The Meeting could see no reason to amend or withdraw the approval given in 1980.

It was unanimously resolved that the 1980 decision be reaffirmed and that the airfield was safe for all categories of parachuting. The earlier exemption from BSRs was also reaffirmed.

Item 8 - A.O.B.

1. M. Harris requested that a Drop Zone be checked out by the JNCSO.

2. L. Thomas informed the meeting of an incident where a jumper, jumping one of his conventional, one pin student free fall rigs had had a total malfunction, when the pack refused to open after the ripcord had been pulled, it was caused by the closure loop being made of heavy weight "Cloud" line and it had frozen at a 90° angle, preventing the pack from opening.

It was recommended that a Safety Notice be sent out, making people aware of the possible dangers.

(Safety Notice sent with these minutes)

JNCSO

3. R. Harrison requested that a Drop Zone be conditionally approved upon a visit by JNCSO. It was decided that the DZ should be inspected first and then presented to STC with proper scale maps as it does not comply with BSRs.

JNCSO

4. D. Palmer requested an exemption to act as CCI for Montford Bridge PC until he has been able to attend for upgrading to Advanced Instructor. As the BSRs now require that two Courses are required for upgrading, it was proposed by J. Meacock and seconded by B. Harman that D. Palmer be given an exemption to act as CCI until May 7th 1984. For 6, Against 4, Abstentions 9. Carried.

JNCSO

The Chairman informed the meeting that he had not had much input for the Instructor Convention, and requested that anyone with ideas should contact him.

Also the Annual Returns would go out with the minutes of this STC Meeting and they should be returned to the BPA as soon as possible.

Date of next meeting is Wednesday 25th January, 1984 at The Post House, Leicester at 7.00 p.m.

**AMENDMENTS TO BPA
OPERATIONS MANUAL**

Section 8 (Equipment) 9 (b) should now read:

- (1) A hard protective helmet without a peak approved by the British Standard Institute or equivalent foreign organisation.
 - (2) The Cebe Ski Helmet (Adult).
 - (3) The Protec Helmet.
 - (4) The Boeri Sport Helmet.
 - (5) The Loupsel Helmet.
 - (6) The Raleigh Burner Helmet.
- FAI 'D' Certificate holders many also use the following types instead:
- (1) The 'French Type' ribbed leather helmet.
 - (2) The Cooper SK 300 and SK 600 helmets.
 - (3) The Cebe Ski Helmet.
 - (4) The Norcon Helmet.

STOLEN KIT

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One Parachute - Firefly - light blue and grey striped.

One Reserve - Phantom - blue and white.

Two Para Bags. Made by January Bags at Headcorn. One light blue, one tan and beige. Five Jumpsuits. One leather 'D' Licence Helmet. One Crash Helmet and one Protec Helmet, both white.

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Skydiving Europe

Januar No. 1
January 1984

Europäisches Magazin für Fallschirmsport
European Skydiving Magazine

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BPA does not guarantee equipment bought and sold through the medium of this journal. Purchasers are advised to use the service of approved riggers. Classified Advertisements can only be accepted if accompanied by a cheque or P/O made out to the British Parachute Association for £1.50

Hanbury Super Star-Fire (rainbow colours, sim. ar to light-weight cloud, 130 jumps) in Piza Spring-Hog container (blue and black, in almost new condition) with reinforced Protector reserve - £500 o.n.o. French Para-Boots size 9/10, very good condition - £22 o.n.o.

contact: Tel: Jacki on Bristol (0272) work: 670686
home: 565901

Jetstream, about ten jumps with Standard Cloud and unused Tallman - £500. Altimaster 2 - £40. Sheila Cooper jumpsuit - £40.

contact: Beryl (0904) 22600

For sale Black and Yellow P.C. Parachute, excellent condition. Harness included - £150.

contact: Les Bolland 051 677 6626

X210 Featherlite and Racer Copy in shades of blue - £700. Strato-Star 5 cell square, good condition - £85.

contact: Romford 27865

1 brown/white/tan Merlin. 1 brown/tan T.S.E. Chaser - £450 o.n.o.
contact: Cheryl Cochrane - Day Erith 41155 (ext. 236)
Evening Erith 42522

2 Sentinel Mk2000 with 2pm side-pull handles - £50 each.
contact: Leeds University at Sturgate

Security 2-pin netted TU Lopo and Reserve in blue and gold trim. Ready to jump - £255 o.n.o. will split, or will exchange for something.

contact: Taylor 061-652-2539

Wanted: 124, R10A or similar no drive reserve canopies, will collect if necessary.
contact: Mick on Leeds (0532) 684801

Wanted: A secondhand 7 cell or 9 cell square canopy (heavy weight preferred).
contact: John on 01 589 4650

TU in TSE - 1 Pin Pack only 15 jumps - £150
contact: Bill - Plymouth (0752) 783918

C9LL in T.S.E. one pin rack, blue with yellow trim. Also matching T10A reserve all in as new condition - £200.

contact: Dick Baggis Gt Yarmouth (0493) 56032 work
Lowestoft (0502) 88887 home

Short lined green and gold Strato Star in good condition. First reasonable offer accepted.
contact: Barry on 01-399-7589

SST Racer, royal blue with black trim. Pull-out pilot-chute, 3 ring release, approximately 150 jumps. Also Featherlite R2-1 Reserve never used. Both in excellent condition - £300 for both, or will split.

contact: 021 743 7273

2 Complete Systems for sale, Wonderhog II's Cloud Lights 26in topo reserves - £500 o.n.o. each or may split.

contact: Matthew Mortlock 0223-834613 (DZ)
or 01-317-8059

Wanted PC type canopies also LoPo TU's.
contact: Matthew Mortlock 0223-834613 (DZ)
or 01-317-8059

Lightweight Cloud plus unused 26ft strong LoPo in Blue Wonderhog - £500.
contact: Rick Simpson on (0760) 21175 weekdays after 6 pm
or at Pamasford Airfield most Sundays

C9 TU Free-fall rig single pin ripcord - £90 o.n.o.
contact: Tom 0708 - 27211 work
01 518 6564 home

C9 D/L in two pin Sport Container with staged deployment. Hot-Dog Pilot Chute and sleeve. Split Saddle Harness with one and half shot Capewells. All brand new and unused - £150.

contact: Bob Cogman - Norwich (0603) 400484 evenings

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