

THE

DECEMBER 1984

SPORT PARACHUTIST



THE JOURNAL OF THE BRITISH PARACHUTE ASSOCIATION



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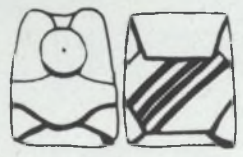
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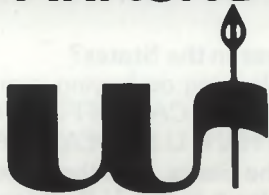
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DIARY OF EVENTS FOR 1985

DATES	EVENT	LOCATION
21 Jan - 1 Feb	Riggers Course	Netheravon
5-8 Feb	P.I. Course 1-85	Netheravon
11-15 Feb	Exam Course 1-85	Netheravon
6-8 April	4-Way Random/8-Way	Netheravon
4-6 May	Scottish Nationals	Strathallan
4-6 May	8-Way Speed Meet	Headcorn
6-10 May	P.I. Course 2-85	Langar
13-17 May	Exam Course 2-85	Langar
25-27 May	POPs Meet	Headcorn
25-27 May	4 & 8 Way Competition	Weston on the Green
8-9 June	Large Aircraft Boogie	Netheravon
22 June - 7 July	British National Championships	Weston on the Green
5-9 August	P.I. Course 3-85	Cark
12-16 August	Exam Course 3-85	Cark
19-29 August	Army Championships	Netheravon
31 August - 1 Sept	LAC Meet	Headcorn
4 - 8 November	PI Course 4-85	Swansea
11-15 November	Exam Course 4-85	Swansea

INTERNATIONAL

25-27 Jan	Paraski (Europa Cup 1)	Bad Wienee, West Germany
1-3 Feb	Paraski (Europe Cup 2)	Savognin, Switzerland
9-16 Feb	Paraski World Cup	Schwangau, West Germany
8-10 March	Paraski (Europa Cup 3)	Austria
21-23 March	Paraski (Europa Cup 4)	Damulz, Austria
17-27 July	RAPA Championships	Bad Lippspringe
1-12 Sept (to be confirmed)	World RW Championships	Yugoslavia
		TONY BUTLER, JNC SO
5-8 April	Team Accuracy Competition	Sibson
6-8 April	Easter Boogie	Pampisford
4-5 May	Police Meet	Sibson
18-19 May	Accuracy Competition	Halfpenny Green
25-27 May	TRAC Meet	Sibson
19-29 July	Swansea Boogie	Swansea
20-21 July	LAC Meet	Sibson
24-26 August	8-Way Speed Competition	

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THE SPORT PARACHUTIST



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BRITISH PARACHUTE
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VOLUME 21 No. 6

DECEMBER 1984

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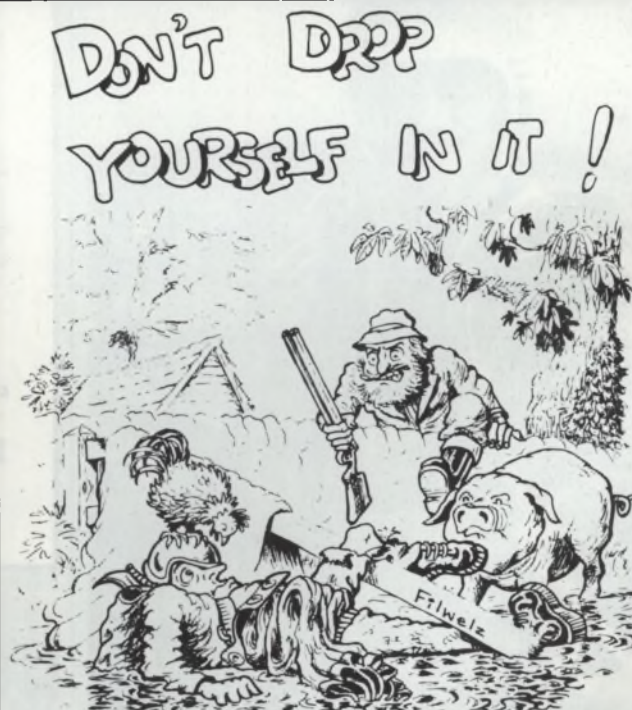
Editor's Note
The views of contributors to The Sport Parachutist
are not necessarily those of the Editor, or of the
British Parachute Association, and no liability is
accepted for same

EDITORIAL

Next year we intend to run a photographic competition, the details of which are now being finalised. There will be many categories including, first attempt at freefall photography, best front cover picture and several more. Prizes are now being solicited from parachute and photographic dealers, so watch out for the final details in the February issue of the magazine.

May we wish all those people who contributed to the success of the magazine this year a very Happy Christmas and a prosperous 1985.

DAVE WATERMAN



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RENEWED

THE DROP MAN THE DAY

ONE IN A THOUSAND

Chris Pollett made his 1000th landing at North West Parachute Centre on 29th September. From 12,000ft. with a hand picked team, Chris came down from a cloudless sky in a late forming seven-way, much to the delight of the hordes of spectators who were at the parachute centre that day.

With his kit off his back he was promptly soaked with a bucket of water by the 'flashing scouser', Paddy Ward. Robin Lloyd's Nikon and Chris Birtles' binoculars also got a soaking.

A cake was presented and after the ceremonial cutting Chris gave a short speech saying how much he loved the sport and how, over the years, he had met some wonderful people in parachuting. These wonderful people then threw him in the water trough.

A large number of pensioners had gathered to see their local vicar do his first jump for charity. These, and many other spectators looked-on unbelievably as Chris was dumped in the grimy water and then 'mopped' by Allen Jenkinson. These strange goings-on confirmed many locals suspicions about parachutists in general.

After a towelling down out came the champagne and big dents were made in a truly delicious cake. All in all it was a great day, not only for Chris but for everyone else involved.

ANTHONY GILL



Back on the ground, a beaming Chris Pollett heads back to the packing shed for champagne and a celebration cake. After the words were finished he got a ducking in the sheep trough.



Chris Pollett, centre with shades, poses for team photo before Hotel Echo. His 1000th jump was from 12,000ft and a seven way was made. Roger Shackleton was the pilot.

Mal



"I'LL TELL THE STUDENTS THAT INTENTIONAL HOLLY JUMPS ARE A CHRISTMAS TRADITION!"



OF BAKK THE DROP HANN

PLASTERED.....



Chris Austins over Durl svelt with leg support

Z HILLS NEWS

As of October 1984, Zephyrhills Parachute Centre will offer its own AFF Course. This had been contracted out in the past. The AFF Course will complement the Centre's static line square First Jump Course, and RW Instruction Course. FFI: Zephyrhills Parachute Centre (813) 788-5591 P.O. Box 1101 Zephyrhills, Florida 34283.

Zephyrhills is in the final negotiations on acquiring a Pilatus Turbo Porter. The Porter combined with "Southern Cross" DC-3 will offer the competitor several practice aircraft. Hopefully the Porter will be on line for the 1984 Turkey Meet.

GEORGE KABELLER

36~UP

36 jumpers took part in the largest parachute display ever staged in Scotland. Organised by Gordon Fernie the display was part of the celebrations for the Airports Gold Jubilee at Dyce Airport, Aberdeen. An Air Atlantique DC3 was the jump ship (a first in Scotland). All the jumpers were Scottish residents except Kerry Noble!



THE SHOWMAN'S DIRECTORY

The Directory is published annually and contains the following information: Dates and Venues of Air Shows, this could be useful pre-event free advertising for your display teams.

List of principal shows in the U.K. This could be useful if you are looking for new venues at which to have Hot Air Balloon Displays, Parachuting Events, Aerobatic Displays, etc. etc.

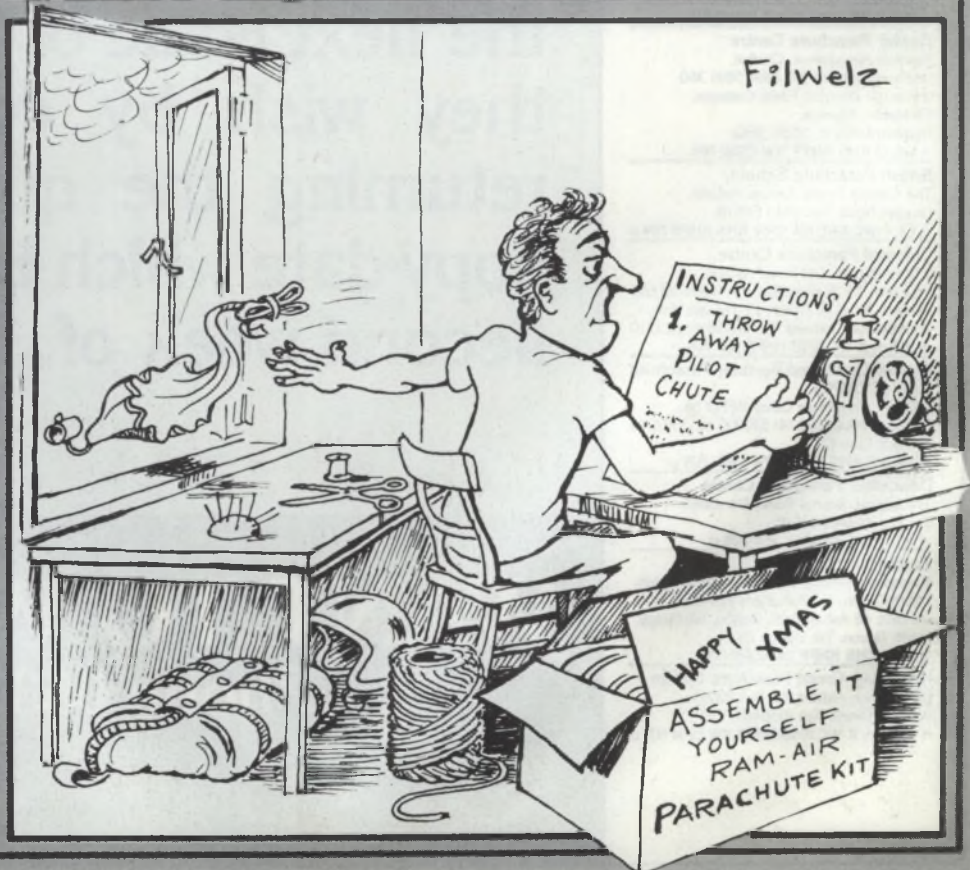
Further details are available from: Steven Lance, Brook House, Mint Street, Godalming, Surrey. Phone Godalming 22184. Price for 1985 Directory £3.00.

WATER JUMP DISPLAY

Do you need a water jump for qualification purposes? Or would you like to make a water jump? In July 1985 I will be organising a safe water jump display in Nottinghamshire, jump fees and travelling costs plus overnight accommodation settled promptly on the day. The 1984 water jump was an outstanding success and it is intended to repeat this event. Please contact:

Joe Forster, 4 Dunoon Clos, Rise Park, Nottingham. Tel: 0602-277485 (anytime)

Kenny Norris pictured closing for his S.C.R. over Pampisford by Harry Morgan.



BPA

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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.

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Washing and toilets on DZ	WC
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Tel: Bulford Camp (09803) 3371 ext 245/277
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Badminton Parachute Club

Badminton, Avon.
Tel: 045 421 486
contact: John Davis,
New Villas, Badminton, Avon.
Tel: 045 421 249/379
+ WE □ WC KHS KHFF

Blackpool Parachute Centre,

Blackpool Airport, Blackpool, Lancs.
Tel: 0253 - 41871
contact: Blackpool Air Centre
Tel: 0253 41871

+ WE X WC KHS KHFF RW CRW

Border Parachute Centre

Brunton Aerodrome, Chathill,
Northumberland. Tel: (066 589) 360
contact: 3 Brunton Farm Cottages,
Embleton, Alnwick,
Northumberland, NE66 3HQ

+ WE □ KHS KHFF RW CRW NM

British Parachute School,

The Control Tower, Langar Airfield,
Langar, Notts. Tel: 0949 60878
± FT = WC XWE RW CRW KHS KHFF NM ∅

Cornwall Parachute Centre,

'Fran's Ranch', Old Naval Airfield,
St. Ervan, Nr Wadebridge. Tel: Rurnford 691
contact: Mr. K.G. Fisher, 17 Trenant Vale,
Wadebridge, Cornwall. Tel: Wadebridge 3310
+ WE = X WC KHS KHFF RW NM

Cyprus Combined Services Parachute Club (CCSPC)

CJSATC Pergamos Camp BFPO 58,
Tel from UK: 01035741530000 ext. 337/245
contact: Club Cl
+ FT WC KHS KHFF RW CRW NM ∅

Doncaster Parachute Centre

The Airport, Bawtry Road, Doncaster.
Tel: Doncaster 532636
+ WE = WC KS KFF RW NM ∅

Eaglescott Skydivers

Eaglescott Airfield, Burnington, Umbeneigh,
North Devon. Tel: Ashrigney (07693) 404
contact: 48 Ashley Park, Dolton, Winkleigh,
North Devon. Tel: Dolton 293
4+ FT KHS KHFF RW CRW NM

Halfpenny Green Parachute Centre

Bobbington Airfield, Nr. Stourbridge,
West Midlands. Tel: (038488) 293
+ ± FT Λ X WC KHS KHFF RW CRW NM ∅

Headcom Parachute Club

The Airfield, Headcom, Kent.
Tel: 0622 890862
contact: The Secretary
+ ± FT X = WC KS KFF RW CRW NM ∅

Joint Services Parachute Centre

Hong Kong
Borneo Lines, BFPO 1
Tel: 0-963 7221
+ FT X WC KHS KHFF RW CRW NM ∅

Lincoln Parachute Centre

Sturgate Aerodrome, Upton,
Gainsborough, Lincs DN21 5PA
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+ FT = □ WC KHS KHFF RW NM ∅

The London Skydiving Centre

The Airfield, A505, Pampisford,
Cambridgeshire. Tel: 0223 834613
+ ± FT = X WC KHS KHFF RW CRW ∅

Midland Parachute Centre

Long Marston Airfield, Stratford on Avon,
Warks. Tel: 0789 297959
contact: D. Deakin, Titton Cottage,
Stourport on Severn. Tel: 5954
+ WE = X WC KHS KHFF RW CRW NM ∅

Northwest Parachute Centre

Cark Airfield, Flookburgh,
Nr Grange Over Sands, Cumbria.
Tel: 044853 672
contact: J.D. Prince, 21 The Coppice,
Ingol, Preston, Lancs. Tel: 0772 720848
± = WE X WC KHS KHFF RW CRW NM ∅

'The Pathfinders' Guards Freefall Parachute Team

Headcom Parachute Club, Headcom, Kent.
Tel: 0622 890862
contact: David Tucker, The Pathfinders,
Guards Freefall Parachute Team, Guards
Depot, Pirbright, Surrey, GU14 0QQ.
Tel: (04867) 4511 ext 267
+ ± = FT X WC KHFF RW CRW NM ∅

Peterborough Parachute Centre

Sibson Airfield, Wansford, Peterborough
PEB 6NE. Tel: Elton (08324) 490
+ ± FT = X WC RW NM KHFF ∅

RAFSPA

Weston-on-the-Green, Nr Bicester, Oxon.
Tel: 086 989 343
+ ± = WE X WC RW CRW NM KHFF KHS ∅

RAPA JSPC (L), 4791 Seenelager,

Belefeldstr, Normandy Kaseme,
Tel: 01049 5254 82 2378
± FT X WC RW CRW NM KFF ∅

Red Devils

Queen's Parade, Aldershot, Hants.
Tel: Ald Mil 2101
contact: Red Devils, Browning Barracks,
Aldershot, Hants.
± FT X WC KHS KHFF RW CRW ∅

RN & RM SPA

Old Control Tower, Dunkswell Airfield,
Nr Honiton, Devon.
Tel: 040 489 697
+ FT = X Λ WC KHS KHFF RW CRW NM ∅

Scottish Parachute Club

Strathallan Airfield, Auchterarder,
Perthshire. Tel: (076 46) 2572
contact: Rob Noble-Nesbitt CCl,
138D Mansefield, East Calder, West Lothian.
Tel: (0506) 882150
+ WE X WC KHS KHFF RW CRW NM ∅

Scottish Sport Parachute Association

(Not a Drop Zone) Tel: 031 553 5555
contact: Martin H. Rennie
Video non members welcome

South West Skydiving Club

Woodland Barton Farm, Roche, St. Austell,
Cornwall.
contact: Steve Whitehead (Sec), Vine Cottage,
Boscastle. Tel: 08405 538
+ WE RW CRW NM

Swansea Parachute Club

Swansea Airport, Fairwood Common,
Swansea, West Glamorgan SA2 7JQ.
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+ FT X WC KHS KHFF RW CRW NM ∅

Silver Stars Para Team

RCT Parachute Club
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+ ± FT WC RW CRW KS KFF ∅

Thrupton Parachute Club

Thrupton Airfield, Andover, Hants SP10 3BU.
Tel: 0264 77 2124
+ ± FT = X WC KHS KHFF RW CRW NM ∅

Clubs appearing on this page are those that responded to the recent questionnaire from the BPA Office. Any clubs that have been omitted will be included in the next issue of the Magazine if they wish by completing and returning the questionnaire by copy-date which is the end of the second week of January.

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Training routines include exits from aircraft of all types including DC3's and helicopters carrying over 40 jumpers. There is detailed coverage of Prometheus training dives leading up to the 8-way Sequential World Championship Competition, on one of which they completed 9 formations which alone would have been sufficient to win the championships. Di Rutledge, the Aussie Style and Accuracy Champion is seen going through her training manoeuvres. Both sequences provide useful instruction and illustrate how crucial "dirt diving" is to success in the air.

Included also is a series of cut-away sequences both instructional and spectacular. C.R.W. bi-hands, a demonstration into a football stadium, a 40-way formation and a great deal more.

There is something to interest every skydiver in this programme from the novice to the experienced jumper. It is quite simply the most impressive film in our catalogue, especially as it is accompanied by an experienced skydiver's commentary.

Directed by **Jas Shennan**

Commentary **Athol Snedden** Running Time 48 minutes **£34.00**

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Directed by **Norman Kent** Running Time 20 minutes **£24.50**

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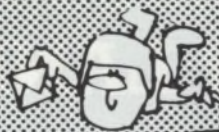
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CORRESPONDENCE

FREE AT LAST!

Having persevered through 57 consecutive static line jumps I finally did my first free fall last weekend much to the encouragement, enthusiasm and maybe even amusement of all Swansea Parachute Club members.

Special thanks to **Dave H.** (dispatcher), **Tex** (who checked me out), **Andy D.** (giver of my 3 second BRIA) and **Lawrence** who flew Golf PARA to 3,500 feet through intermittent cloud. Also thanks to all regular club lurkers (not least for the shaving cream). Next year S.P.C. boogie here we come??

FRANCIS P.L. CLAUSON
BPA 160673 A5564

THANKS P.P.C.

On 1st October, I made my 200th jump and gained my 'D' licence. It was a wonderful experience. Thanks to all those at PPC who helped organise it and took part. Especially may I send my thanks to **Peter Allum** the load organiser. It was a great experience to be in the lead BN Islander with the trail aircraft just behind, from the end of the runway right up to 11,500ft. I have never seen so many people in the air at one time!

My further thanks to all those people who have helped me, and jumped with me since those days at Wickerby with **John Hitchen** as jumpmaster and his C210, through my various student clubs to PPC.

I am often really proud to be a member of such a big 'family' of jumpers. Whatever or whoever, male or female, young or not so young, student or skygod, white or black, rich or poor then once we meet at a DZ so many barriers are broken down and we just share the love of the sky and skydiving.

In the BPA we tend to spend a lot of time tearing ourselves to bits and carrying out critical self-evaluation. Of course this is needed and there are some problems to be ironed out but there is a tremendous number of really good things with skydiving. What about the face of a student who has just made their first jump? What about the 'buzz' as the plane cuts and you climb out as rear floater? What about the round of faces as you build the planned 4, 5 or 6 way round? What about that feeling as you drive home after a great weekend? That following week at work, after my 200th went so quickly, as I lounged in the afterglow.

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.

Now to the future, to my next 2,200 jumps and as parachuting has given me so very much - it has totally changed by life - it is time that I repaid a little of my debt. To blue skies, safe jumping and soft landings.

NICK PINEGER D3960

DISPLAY AGENCY

I have recently formed an outdoor entertainment agency (licenced of course) and would like to hear from display teams anywhere interested in demos for next year. Please send full details to:-

Helen's (Arena Promotions)
28 Station Road, Knaith Park,
Nr Gainsborough, Lincs DN21 5HA.
Tel: 0427 - 617573

not forgetting to mention if you incorporate a particularly novel ideal into your display.

HELEN GOUGH BPA 103801
P.S. Thanks **Lenny Melville** for the impromptu commentary at Stockton-on-Tees earlier this year.

Colin Guppy D2223 (James Dylan Stunt Show)

PARACHUTE STORIES

Is it possible to include in one of your periodicals 'Sport Parachutist' an appeal on my behalf? I am at present involved in a project, putting together a book about parachute stories. I would like people, that is, parachutists, veterans and novices, to write to me about their experiences!

I am interested to hear about the whole experience of parachuting from beginning to end! Why they do it? How they feel about it, and, of course, the tangles and obscure landing places that they get themselves into!

I made my first jump back in September with a team of British Airways crew and ground staff. We spent a full day with the Red Devils display team being made aware of the hazards we may encounter. The training they gave us was quite intensive, in fact, it took me a couple of weeks to recover! However, our team jumped that day and lived to tell the

tale. British Airways got together a team to raise money for charity - this particular day, we were involved in raising funds for Leukaemia Research.

My inspiration to write this book came when I was browsing through the books in my local library. I came across a book called "When a Chute Went Up" the adventures of an Edwardian Parachute Lady, written by **Dolly Shepherd**, who died last year two months short of her 97th birthday, within a few days of putting the finishing touches to her story. After reading this book I decided to put together a series of anecdotes and short stories, realising that there must be many a strange tale connected with this sport!

To help my appeal for information along I was given the privilege by several radio stations in the United Kingdom to join them in their studios or on the telephone to broadcast my appeal, and will continue to travel the UK broadcasting, in order to achieve maximum response. I hope that you will give this proposal your kind consideration. I would also be grateful if you could forward any relevant information on parachuting and possibly a copy of the latest periodical.

PAULINE STAMFORD
Ms Pauline Stamford, P.O. Box 23,
Teddington, Middlesex TW11 9JW.
Tel: 01-750 5108/01-562 0519 day
01-943 0908 evening

THANKS HEADCORN

I should like to offer a few words of thanks to all members of staff at Headcorn who have had to put up with me and my 'heavy breathing' over the last 2 years and yet somehow managed to get me through the category system. Similarly to all friends and colleagues whose company and comradeship I have enjoyed - a sad au revoir. Although I am migrating to Scotland I hope to see some of you again from time to time at Strathallan.

KEITH LALLYETT C5506

HOW ABOUT?

Thought I'd drop the line (yuk!!) on our Union paper, all nicely printed on top to enable easy reading. As SCPUS Parachute Club has put 389 first time student through P6 maybe we can have one little line on the clubs page Ta!!

A suggestion, now don't be like that, this is a polite once, ok standby, here it comes. Parachuting progress seems to be part sensible, in the log book, and part nonsensical, a collection of bits of paper for membership, packing certificates, medical declaration etc., which deteriorate with time and are very unprofessional. Apart from flinging myself out of aeroplanes I indulge in a much more calm, sensible and generally healthy pastime - viz. flinging by head at heaps of concrete times, bricks etc. Some call it a Martial Art, others use more colourful descriptions!! However I digress - the point is this, to practice the art one must be in possession of a licence. This document, resembling a passport, contains details of gradings, courses attended, membership of B.J.J.A., and Martial Art Commission, a 'naught boy' section and a 'good boy' section. For example, good boy - "hit policeman", bad boy - "policeman survived" (!jest). The document is in five languages, which makes it very international.

At the faintest glimmer of interest I will acquire a blank licence for your perusal and even layout a prototype for parachuting, in as many languages as I can con the languages department at the Poly into doing. I can possibly even get the cost of supply to the B.J.J.A. if required. End of suggestion, so you can stop sighing on my letter. As if you would!!

Keep up the good work, best wishes.

SEAN GRAHAM BPA 114815

COLLEGIATE CHAMPIONSHIP

Just a short note to point out that the BCPA is now being run c/o the address given below.

Firstly, I'd like to thank those who replied to my letter in the August edition of SP concerning a collegiate championship for 1985. I haven't got around to answering any letter yet at nothing has been done except trying to breathe new life into the Association as I hope this letter shows.

Having just taken over the books from **Henry Robinson** I found a list of colleges which had active parachute clubs. This list was over a year old and I suspect that most addresses are out of

date. If your college has an active club or even if you are a lone parachutist at college who may be interested in a fun competition next year, write to me giving an address, I can contact you. Thanks,

STEVEN SHAW
273 Simonside Terrace, Heaton,
Newcastle-upon-Tyne.

R & D IN WRONG AREA?

Every year, the 'fun' Accuracy Meets demonstrate the often appalling lack of canopy-handling abilities. Canopy performance and handling characteristics are progressing faster than the ability of many jumpers to handle them properly.

If the intense interest in CRW between 1979 and 1981 that resulted in British World Champions had continued nationwide, perhaps the situation may not have deteriorated so far. There is little world competition standard CRW done these days in GB, as the competitions since 1981 have shown.

If the majority of performance improvements originate from military necessities, then the sport parachutist will benefit anyway, especially in terms of R & D, construction methods, safety, etc. If the improvements continue to be ostensibly relatively minor ones in performance, are the manufacturers really responding correctly to jumpers' needs and wants? It would be interesting to see the proportion of the final (almost prohibitive) cost of a new Main relates to R & D, and how much to the expected volume of sales.

It is going to be some time before we get a canopy that does 45 mph fully, stalls at 4 mph and is actually landable. If and when we do, how much will it cost? The real cost to a skydiver can be loss of freefall time.

I've heard it said that a full-toggle depression turn on a narrow cord 9-cell ends up with twists below the slider. Terrific. Of course, I'm not advocating not buying a piece of equipment that anyone thinks is going to give them more fun. It's just that the return on the expensive extra investment doesn't always seem to me to be cost-effective. With the Dollar as it is, can anyone really justify the extra expense for the 'improvements' in performance from say, a Pegasus to a Renegade?

Isn't it better (military, sponsored and wealthy excluded) spending the money on one of the other reasons most of us (accuracy and CRW excepted) go to altitude for? i.e. improving our RW.

In the same way that style may develop into the new Freestyle Competition, perhaps we will see the performance and handling of the new 'Superships' taken advantage of in a Canopy Soaring or Cross-Country competition.

ALAN JAMES D4218

THANKS NETHERS

I am writing to say a very big thank you to all involved in the Parachute Weekend at Netheravon on the 15th-16th October. As a student I managed

to make my first, (hopefully of many) parachute jump. It was a fabulous experience and not to be missed by anyone.

I would like to thank all the instructors of 'B' syndicate and I would especially like to thank Peter Barlow, without whom I wouldn't have had the opportunity to make a parachute jump. Thank you.

JULIE KING

JUMPING IN ISRAEL

The enclosed letter would be of interest to any BPA members going to Israel, perhaps you could print a note of the important bits in the mag letters page.

DAVID SMITH

My name is Shlomo Pearl, I am the manager and the Master Parachute Rigger of The Israeli Sky Diving Club, so in the future please write to me and not to the Aero Club of Israel.

Our DZ is in Tel Aviv near the sea in a small airport named Sede Dov, being near the sea and lots of sand the landing are very soft.

We use an Islander aircraft. The club has PC with 24ft reserve all with SCS and Sentinel Mk2000 AAD for the best safety, the club also has three Strato-Clouds in SST Trainer with 24ft reserve and Mk2000 AAD we use only TSO'd rigs. We jump every 2nd weekend on Saturdays only, we have about 20 members.

Skydivers from England who would like to jump in Israel please let me know. You should bring logbook, medical certificate, licence, your rig and canopy should be FAA TSO'd the reserve should be packed by a rigger with a log and a seal, if not I will have to pack the reserve. My address is: Shlomo Pearl, The Israeli Skydiving Club, 11 Tzadey Gimel Banst Street, 75301 Rismon Le Zion, Israel.

WORLD CRW MEET

This meet was noting short of magnificent and perhaps if I can put across to the Association the importance of maintaining an interest in this discipline we maybe able to spark off more interest to compete in the '86 championship.

Hopefully our bronze will convince people we are still up there with the big guns, we just need more depth. Anyway I will be putting together a fairly comprehensive article Dave which I think will be important to British CRW. I hope you will be able to dedicate the space in the next mag. Anyway, I'll give you a buzz around the 10th November when I get back from USA, lifes hard sometimes!!

NIGEL WATSON-CLARK

A RECORD!

Being a member of the BPA for some years I have never known anybody on their first jump get a stable spread like this, his report was VGATW, his 2nd was as good (VGATH) his 3rd DRCPS. Is this a record (DZ Headcorn).

Please try and print this in your next mag as in all the years I've never had anything in SP. Happy landings,

TONY COLE

GOLF WHAT?

It started with an innocent question in the pub. "How did that aeroplane get a funny name like Golf Victor?" But as I started explaining, I realised that many of the folk there had only the vaguest notion of the radio alphabet. Yet these folk are often involved in DZ control, passing messages to pilots, and so on.

Every C-licence holder should know the radio alphabet, and a copy should be pinned on every club safety notice-board.

GRAHAM 'DOC' SUTTON C5325 (That's G for Jesus, R for Arthritis, A for Error.....)

ASTONISHED SWISS

First my congratulations to Sport Parachutist which is a fantastic journal and is getting better and better. May I kindly ask you to take note of my new address: Felix Meier, Alte Landstrasse 64, CH-8800 THALWIL, Switzerland.

I am astonished to learn that the STC turned down a proposal for an AFF programme. Roland Hilfiker, a Swiss living in USA, has worked out in cooperation with experts of the Para Centro, Switzerland's full time centre, an appropriate AFF programme which will be approved by the officials. Maybe, if it helps, the STC could get in contact with Urs Frischknecht, the centre's manager, to get another input to your proposal.

We were very lucky to have had Esther and Chris with us for the Internationale Day and Night Accuracy Meet at Locarno at the last weekend of October. Esther was third of eight ladies. They jumped out of the Pilatus-Turbo Porter and the brand new Cessna 206 Soloy Turbine, an outstanding excellent aircraft. With my personal best wishes,

FELIX MEIER

CIP-Delegate, Aero-Club de Suisse,
Switzerland.

GQ DEFENCE EQUIPMENT LTD.

We understand that certain parachute equipment originally manufactured by GQ Defence Equipment Ltd., Parachute Division, may now be on offer or be offered for sale in the near future.

We would very much appreciate your co-operation in advising your membership that GQ Defence Equipment Ltd. cannot be held legally responsible for any injuries, damages at all, brought about by the use of such equipment.

A.J. HARRISON
Technical Director



THANK PAMPISFORD

In the two years I've spent over here in this country, I have made numerous friends. I would like to thank Matt Mortlock and Ian Head and the rest of the staff and jumpers at Pampisford for a very memorable stay.

I was extremely impressed over Easter when I made it to the Boogie at Pampisford. Lots of good quality skydives, and a really good time after jumping was over for the day. I was also in the largest formation I've ever been in, which was a 20-way round. I hope to see some of the jumpers I have met over here over on the west coast of the States sometime. Blue skies,

DAVE WALKER BPA D5361,
USPA C14842

AFF IN THE UK

Having visited and jumped at various DZs in the UK over the past six years, I have been consistently impressed with the high degree of expertise and professionalism of BPA Instructors and Jumpmasters. To many that visited Zephyrhills Parachute Centre, I extended Carte Blanc in their supervision of English Student parachutists. This, I may say, is a direct result of the standards demanded by BPA.

Given this, it is my opinion that with the same high standard being met, an AFF programme could be safely administered in this country. Properly supervised, using qualified and appropriately rated instructors and jumpmasters, AFF need be no more dangerous than a static line first jump course. I base this opinion on having observed hundreds of AFF jumps at Z Hills. While the standard of our AFF instructors and jumpmasters was exceptionally high, it would be absurd to think the same standard could not be met and maintained in the UK under the supervision of the BPA.

May I suggest that before anyone on STC accepts or rejects the viability of AFF in the UK, he or she seriously studies and understands the USPA training syllabus and statistics. Just as old concepts are not necessarily backward or outdated simply because they are old, neither are new concepts necessarily radical simply because they are new.

JIM HOOPER

I write to express my concern at the recent decision of STC to prevent the introduction of the Accelerated Free-fall programme in its original form.

AFF has been developed over the years to is present highly advanced stage. It has proved to be safe, cost effective to the individual jumper and to produce excellent results. Having personally jumped with several AFF instructors and one or two of their 'products', I can testify that:

- 1) The standard of instructor is kept to a very high level of competence by rigorous selection.
- 2) Students of the system achieve a similar, if not higher level of Relative Work competence and awareness than counterparts from the normal category system, and in a much lower number of jumps.

I will not labour the subject, as much of what I wish to say has already been said (Sport Parachutist, March 84 issue, AFF article, and STC presentation 6th September, both by **Brian Dyas**). I will make just one request to STC and Council. Please do not allow GB to be left behind by the rest of the world in this field. I am convinced that AFF will eventually be accepted, but lets not drag our feet and allow old ideas and views to hold up progress.

Accept AFF in its original form, and lets move into the 1990's instead of staying in the 1970's.

ROB AMES

Like so many grips at recommendations that come from the STC following a decision on a contentious matter, I was once again left with the feeling that I had attended a totally different meeting to that on which the above letter is or was based.

Had the STC accused anybody of reckless behaviour, then it most certainly would have been presumptuous, however no such comments were made through the Chair at that meeting. Neither did the STC say that the USPA system was unsafe, please take care how you interpret what you think may be the thoughts of others!

So far as the actions of the other Countries who have, or who are considering adopting an AFF system please do a little first hand research into how each Country is getting into AFF. You sight France as your example, well from first hand experience I know that a team of USA AFF Instructors/ Jumpmasters visited France in '83 to sell the idea of AFF. One Centre that was visited was Bergerac, the word was spread and the idea was well received, however on both my visits this year to that Centre no great ground swell of AFF Students were seen jumping in and out of the Porter and the Cessna 207/8.

STC almost to a man supported **Brian Dyas** in his idea of AFF, but asked quite rightly that we should "have a go at walking before we tried to run". STC wanted to see a modified approach to AFF-UK before allowing the 'full' USPA system to work here. We do need to see AFF at first hand, all of us!

It would be then that we could devise a system that would take into account such things as UK weather/airfield size/people etc. etc. We are not the same as the USA, Germany, France etc.

We need a pilot AFF setup in this country, and I am sure that at the next STC Brian, or someone else will submit a slightly modified proposal that will be accepted. I am also sure that the STC and the BPA will not ignore AFF, but that they will integrate it into our training system which to date has a record second to none.

I for one - a CCI of a medium sized Centre have booked on to the next AFF Inst/Jumpmaster course at Z-Hill 1-9 Dec. 1984. I only hope I am good enough to succeed, one thing is for sure I will return with more than just a "gut reaction" and I hope also to have "a little knowledge" gained at first hand.

Lets hope I see some other jumper from the UK on the course, perhaps

the three that wrote the letter that I am griping about will be there. (But I expect that have got their Ratings in AFF a long time ago).

D.T. HICKLING

Having read **Brian Dyas's** article on the AFF programme, in a recent edition of SP, I thought I'd write and give you a student's opinion of the AFF programme, as I have recently returned from an AFF course at Paracentrum Texel, Holland.

The course was run by **Roland Hilfikers** 'School of Human Flight', who normally teaches at Z-Hills. This summer, Roland took his staff to Europe to do his courses, Holland, Italy and Switzerland.

The ground instruction was given to the students by Roland himself and he left the jumping to his staff, **Jeff Barbani** and **Mike Michigan** along with two Dutch AFF instructors, **Charles van Sury** and **Herman Landsmann**. My personal parachuting record, prior to commencing upon the course, was a grand total of 13 static line jumps and of the other 7 Brits on the course, I was the most experienced, only two never having jumped at all. Reasons for doing the AFF course varied as well, mine being to want to jump on square canopies and freefall in as short as time as possible. I work at sea on supertankers for 5-6 months, before returning home for leave of 2-3 months and the idea of having to start from scratch, everytime I came back to the UK did not appeal to me at all. There was one other reason, I was sick and tired of all the unnecessary waiting around to jump, something which most students find so frustrating. There was always so many holdups, and by holdups I'm not just referring to the weather conditions. Admittedly, square canopies can be jumped in stronger winds, which means more jumps and consequently more experience and faster progression. This was what I wanted.

So, how did I do?, well the object of the AFF comprehensive course is to attain jump standard level 7 in 7 jumps, something which I achieved, thanks to the expertise of Jeff and Mike. Having now completed the course, I stayed at Texel for another two weeks, renting Roland's equipment, during which time I managed to go from the 9-cell canopy onto a 7-cell a Raven 4, the canopy being used by Roland and his staff, it also meant I've now used a throwaway pilotchute on seven jumps, having progressed from the ripcord arrangement, that Roland uses on his Vector rigs. All the time I continued to jump after having completed by AFF course, my progress was continually assessed by Roland, Jeff and Mike and I took full advantage of the wealth of experience that was available to me. So when I finally left Texel, I had made a total of 20 freefall jumps, with average delays of +60 seconds on 17 of them, used three types of 9-cell canopies, used a 7-cell with a throwaway, done 3 RW jumps with local jumpers and had learnt how to pack a square canopy.

It is my opinion that the major advantage of the AFF course, is the fact that the instructors are with the student throughout the freefall and they are in a position to see what the student is actually doing in the air and

consequently help rectify any faults during the fall, by giving hand signals to the student or by physically moving students arms and legs to help achieve a good body position.

For those students I met on the course at Texel who were having difficulty in progressing, it was not through their lack of ability or effort that hindered them, it was possible their fear that caused them problems.

As one instructor I know said to me, before I went to Texel, he could not understand why I wanted to do an AFF course, having only done 13 static line jumps and he suggested that I would be so scared, that I would not do well. He said that he had not overcome his total fear of jumping out of an aircraft until his 30-40th jump. I am still apprehensive everytime I jump, who isn't?, but I wanted to freefall and jump on square canopies and I was determined to do well, so that I could hopefully return to my local DZ and jump squares there, if I was given the CCI's approval.

The AFF programme provided me with this opportunity, Roland, Jeff and Miek taught me the principals of freefall and they taught me how to skydive safely.

For those of you who want to learn to skydive and jump on squares, the AFF programme is a faster means of achieving your goal, freefall and flying a square canopy is a fantastic experience, it is a pity that so many British students have to wait for so long to experience it all. I welcome any comments that other SP readers have on my letter. I would also like to take this opportunity to thank everybody at British Skysports, where I started parachuting, the club has had a few problems this year, but good luck for the future, hopefully I'll see you all in early 1985.

KEN PATTERSON, BPA157886

In the summer of '83 I spent every possible weekend that I could trying to climb the category system. All I seemed to succeed in was an attempt at the all time static line record. The next summer was going to be different.

I joined **Roland Hilfikers** School of Human Flight at the Para-Centro Locarno in the south of Switzerland. While **Roland** and **Mitch Decotreau** were trying to put European instructors through a certification course, **Jeff Barbani** and **Michigan Sandberg** were pulling me out of a Porter at 12,000ft. With the direct instruction on the ground and in the air my confidence and awareness grew on each jump - the bardest thing was trying to relax - easier said than done. I eventually graduated after nine jumps - less than the number of static line efforts that I had made.

I am not going to start saying which is the best system, there are pros and cons for all of them. What I will say however is that the AFF course suited by needs and hopefully it will be accepted here very soon, as I believe that it is one of the things our sport needs to bring more people into it.

A quick word on the Para-Centro Locarno. This is an expertly run DZ set in picturesque surroundings. Bed and breakfast can be arranged nearby at a very reasonable price (pit I can't say the same of the beer).

Finally a big thanks to Roland, Jeff, Mitch and Michigan - see you soon when AFF comes to Britain.

ANDY MORTON, 148388

Accelerated Free Fall
Alas, not yet they say,
Stick with the present system
Watch weather in UK.

To introduce this system
Yes, try another mode,
What does it really feel like
This Sensory Overload?

Just dream about a twelve grand hop
And Z-Hills far away,
When standing on the DZ
Wind blowing all the day.

My dedication to the sport
I've read is less than nil,
But almost ten years later
I'm here and trying still.

No matter what the system
And who we try to blame,
For Static Line or Sky God
The weather stays the same.

No matter what the system
No matter how we dump,
Just fail to pull that handle
Good-bye....
Farewell....
LAST JUMP!

CHRIS MILLS

NOT TRUE

Your editorial in the October issue of Sport Parachutist was a model of half-truths and inexactitudes.

There is absolutely no truth in your statement that the Pioneer Para-Commander and the Security Cross-bow tandem system were met with suspicion upon their introduction to UK parachutists early in 1965.

The photograph you printed above page 28 is a load of arse worth of the garbage press.

The line drawings on page 30 are hideously ugly in both execution and content.

On a personal note, may I express my condolences on your dose of *deja vous*. Nasty at your time of life. As ever,

JOHN MEACOCK

Thank you for your usual complimentary comments about the magazine.

I agree, the inclusion of the advertisement on page 30 was a mistake that will not be repeated.

I am however surprised at your reaction (which I can only put down to a sheltered upbringing), to the photograph of the Mass 'Moon' on page 28. Such goings on have been part of Sport Parachuting culture even before the 'Hard Ass' team of the 70s (which contained two members who were to be Chairmen of this Association) introduced it to the Mayor and Mayoress of Innsbruck at a formal function.

It is interesting that having said that the editorial was a "model of half-truths and inexactitudes" you only mention two examples. I can personally remember that my first jump on a Para-Commander in 1965 was one of apprehension,

having been given erroneous information about the opening shock from some of the old and bold of the period. I did not mention the Security Crossbow Tandem system of 1965. I personally jumped an APT II made I think, by Pioneer. I can once again vividly remember being cautioned about having a reserve on my back which could not be deployed in the case of a malfunction of the main without first having 'cut away'. With a front mounted reserve of course, hand deployment without necessarily cutting away, was a technique which could be used. Tandem rigs were relatively slow on catching on. Tandem rigs for students of course is still a no in this Country.

BIASED DRIVEL

I believe that your editorial in the October issue of Sport Parachutist is dangerously biased drivel. I object strongly to the pages of Sport Parachutist being used to express such infantile views.

I don't doubt that your rantings will appeal to the same element that enjoy the sort of photograph at the top of page 28 and the moronic advertisement on page 30. The fact that you are prepared to print such rubbish speaks volumes for the validity of your opinions.

ROB NOBLE-NESBITT

Well none of us are perfect. Unfortunately your personalisation of the argument tells me more about you than the content of Sport Parachutist can possibly tell you about me.

The pages of the magazine are open to all shades of opinion so perhaps we could look forward to an article on how you see AFF fitting into the current BPA system, from a forward looking CCI's point of view.

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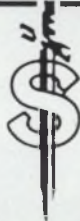
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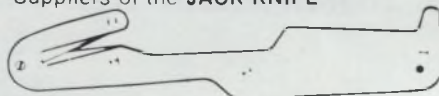
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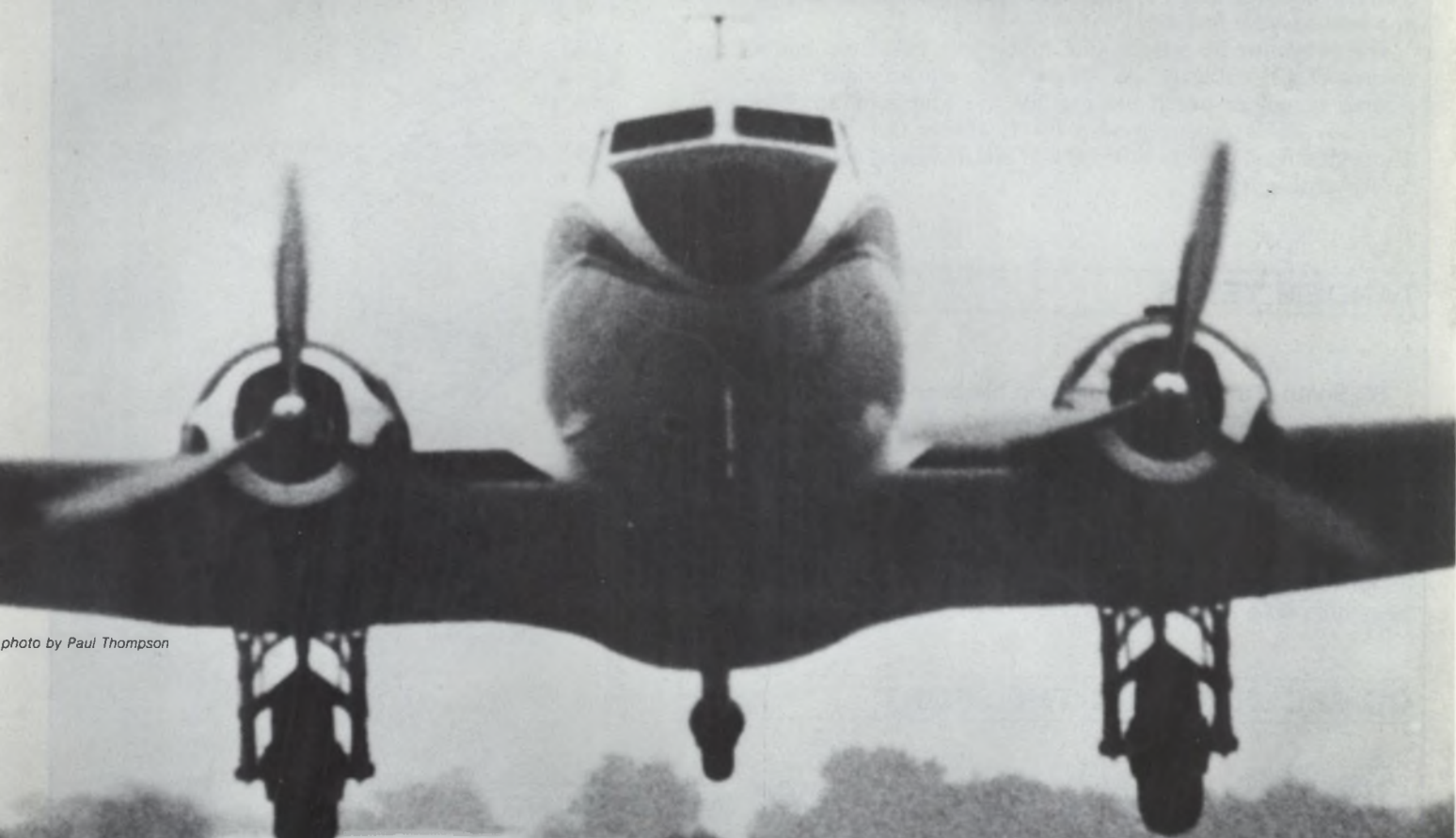



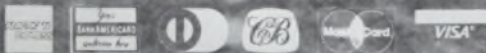
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KIT NEWS



by Rob Colpus

PHANTOM 28

National Parachute Industries is putting the finishing touches on the latest addition to the Phantom series - the Phantom 28.

Using the same design and construction techniques as the Phantom 24 and 26 canopies, the Phantom 28 is constructed from F-111 with a 4 panel gore and 3 Kevlar reinforcing bands. All of the Phantom canopies have a high profile, conical shape which gives consistent, reliable openings.

A unique feature that was added to the Phantom canopies in 1984 is the interwoven high pressure reinforcing band. This Kevlar band which encircles the canopy in the high pressure area is interwoven with the radial seam tapes, locking the canopy in a basketweave fashion.

The Phantom 28 weighs just 6.8lbs with links and has a volume of 421 cubic inches. We pack it in our standard B size reserve container which we use for the Phantom 26. The Phantom 28 is recommended for skydivers up to 240lbs. Suggested retail price is \$495.00 and first delivery is scheduled for November, 1984.

TANDEM TESTS

Bill Booth of the Relative Workshop, has been seconded onto the Technical Committee of the Parachute Equipment Industry Association of the USA, in order to study testing standards related to the Tandem Jumping programme. Since the advent of Tandem jumping (where two jumpers wear a single dual harness and container system and descent under one very large ram air canopy) a gap has appeared in the testing standards as adopted by the relevant TSO. Booth along with **Ted Strong** have been the prime movers in this field.

GQ SECURITY QUIT THE SPORT

GQ Security Inc. of the USA, manufacturers of amongst other things, the 'UNIT' ram air range, will be moving from their California base and relocating in Florida. The company has ceased production in the Sport market, but will concentrate on its range of military and recovery systems.

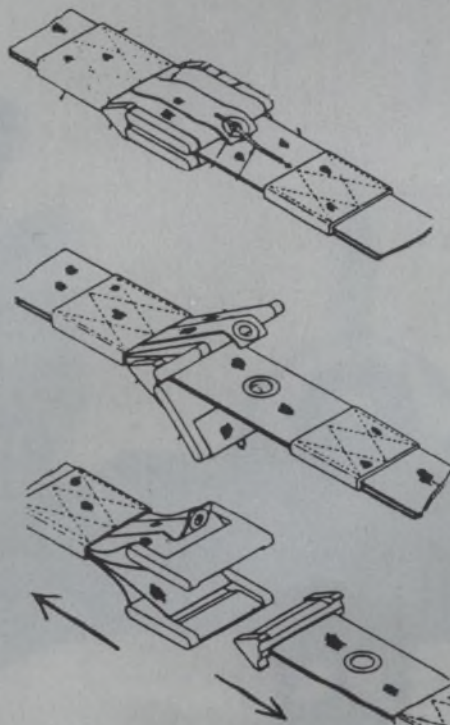
However, GQ Great Britain will be taking over some of the Sport Parachuting products for manufacture in this country. No details of their proposed range of products have yet been released.

CANOPY RELEASE

A new canopy release system, designed and manufactured by Skywalker Airsports of Issaquah, Washington State, USA, has been undergoing field testing recently.

The new system is constructed from lightweight aluminium, and an anodizing process can be applied to suit various colour schemes desired. The principles of the design allow materials such as nickel alloys and plastics to be considered. Bench tests have proven that the webbing fails before the hardware.

This system will also be produced in a one inch width version for application with type 17 harness webbing.



NO SMOKING

The Army Parachute Association have recently banned the Paynes Wessex, Parachutists Smoke, Number 1 MkIII from use in the air. Apparently the firing mechanism throws pieces of metal out from the cannister. Paynes Wessex are in the process of redesigning it.

PARA SKI-ERS

FIVE LEFT!



Filwelz

CYPRUS MEET

This year saw the Cyprus Championships a little later than in previous years, however, the weather was as normal, clear blue skies and under 10 mph winds throughout the competition.

We had of course the Cyprus Teams, mainly novices who had only started parachuting this year, a civilian team from Halfpenny Green in the West Midlands and the Oman accuracy team headed by **Capt. Chris Lyall**.

Unfortunately because of Exercise Lion Heart no UK or BAOR teams could compete.

Well now onto the competition. This year because of the lack of expertise in the Relative Work (Holding Hands in Free Fall) it was decided to run the accuracy (First point of Contact 'ON' or as close to a 10cm Disc) in the first week with the water accuracy on Saturday - day off Sunday and then scramble everyone for the Relative Work.

The accuracy proved very interesting with some of the novices scoring better than the so called "Eggs-perts". **Keith Keating** of 40 Commando RM showed a very determined effort to win the novices accuracy and **John Boardman** (on loan from Netheravon/Lippspringe) managed 6 dead centres to win the Senior Accuracy Competition. The water descent again was great fun with **Colonel Salusbury-Trelawny** The Dhekelia Garrison Commander, leading the way with his first jump for some considerable time!!

Sunday, as tradition has it, was the day of visits to Nisi Beach and other local 'hot spots'.

The second week saw the start of the Relative Competition



Medal winners say "cheese"

and for this event we split up the experts and formed four mixed teams. One Omani, one Halfpenny Green and two parachutists from Cyprus in each team. It was decided that the manoeuvre would be a two man launch with three and four free flying to form a star. The selection of who jumped with who proved to be correct because after 3 rounds we had 3 teams with equal scores. On the 5th and final round we had a clear leader and 2nd position and two teams equal third which meant that everybody received a medal.

All in all a good meet in which I am sure all competitors had a good time. 35 competitors completed 6 rounds of Accuracy and 5 rounds of RW, with 27 jumpers recording a water descent.

A.E. ROSE D584

OBITUARY WERNER KROEGER

Netheravon has lost one of its favourite sons with the death of **Werner** following a short illness.

Contrary to popular opinion Werner was not a Messerschmitt Pilot during the war, although those of us who saw him in action at the controls of the Turbo-Porter would swear that he must have had a go on a Stuka at some time.

In face he was a schoolboy evacuee from his home town of Hamburg during the war years, and subsequently trained as an engineer. He eventually found himself in the Libyan desert working for an international oil company where his association with the English language and its roots began.

Although he never lost his German accent he was frequently criticised on his visits home for his inability to speak proper German there, and to do that with an English accent! Indeed he never relinquished his German citizenship despite having long since qualified for British naturalisation by settling down and working over here.

Werner started flying as a hobby, becoming a founder member of a group which owned a Tiger Moth and a Chipmunk. From this classic start he moved to Thruxton where he start to learn the mysterious art of skydiver-driving.

The stage was set for the happy move to Nethers once he had satisfied the predations of the insurers by accumulating enough flying experience; for quite a while thereafter Werner appeared to be glued to the seat of the 206. His continued application and ability were duly rewarded by the honour, unique at the time, of a conversion onto the twin-engined Islander by the unusually cautious and selective Commandant. Despite a markedly lower level of comfort this had him coming back for even more than before.

Werner became the first non-professional pilot to fly the new Turbo-Porter when it arrived, and many readers will have seen the remarkable photograph of him in a swoop past the camera on the flag-dive taken some months ago and published at what was to prove the height of his powers. Certainly height was one thing for which he was celebrated as he was known not only for miss-setting the navigation dials occasionally but also for operating on the Mont Blanc QFE when running in at altitude!

A fortunate conclusion to Werner's flying career was his participation in the annual training camp in Cyprus at the end of last year, indeed his last recorded flight was the return flight from Dhekelia to Netheravon; a rare event for a private pilot and in retrospect a happy coincidence for such a faithful servant.

Werner will be missed by everyone here for his ebullience and devotion which extended beyond the cockpit to include a trial parachute descent, entertaining the canteen crowd with hair-

raising steeplejack stories, and of course his major secondary duty as Chief Barbeque Chef which he typically continued with enthusiasm in inverse proportion to the traditional Netheravon weather.

Netheravon is of course still here, but it might be business as usual it will never be quite the same again.

PATRICK LONG

SCOTTISH NATIONALS 1985

Scottish Open and
National Parachuting
Championships,
first weekend in May
1985

4th, 5th and 6th May
with the following
weekend
(Saturday & Sunday)
in reserve.

RAPA CHAMPIONSHIPS '84

21st - 28th JULY

By Friday the 20th July some 400 souls had gathered at Bad Lippspringe DZ in West Germany, the home of BAOR's Joint Service Parachute Centre and the Rhine Army Parachute Association. Over 250 of those assembled were competitors for RAPA's popular open Championships, the remainder were the faithful wives, children, girlfriends, staff and officials all looking forward to the traditional 8 days of happy, relaxed competition catering for the wide range of skills from world champion to novice. All keen and hoping to sample the friendly, happy atmosphere of this annual parachuting jamboree.

The International aspect of the RAPA



The Giant sikorski CH53 Helicopter about to load up. Courtesy of the Bundeswheer (German Army).

Meet has always been an important feature and 84 was no exception. Teams and individuals from some 13 countries were entered, these included Dubia, Abu Dhabi, Jordan, Oman, Hong Kong, Cyprus and of course most European countries including Poland, who are not often seen on BPA DZ's.

The schedule of the meet was ambitious and demanding given the large number of entries, with 8 rounds of accuracy, 4 rounds of style, 8 rounds of 4 way RW and 8 rounds of novice accuracy. However the facilities were available to cope with such a programme, with the highlight being the giant Sikorski Helicopter from the Bundeswheer (German Army) as a jump ship. This fantastic machine being aided and abetted by the RAPA and RAFSPA Turbine Islanders. Such aircraft would be hard to surpass at any level of competition. To ensure fair play, 5 FAI and 7 BPA Judges were available with a host of keen trainees to support them. The Army Catering Corps were ready to display their expertise in bulk feeding and a refrigerated trailer containing vast quantities of cold beer was sited close to the Clubhouse which is complete with new extended bar. The weather looked good and all was set for success.

An open air competitors briefing opened the proceedings, John Laing began with the Chief Judges address, a dozen words which was brevity indeed.

This was followed by the introduction of event judges, **Harry Kuipers** - RW, **Jan De Graff** - Style and **Jack Fowler** - Accuracy. Then perhaps the less than brief rundown on the DZ do's and don't's by the **Commandant Major Bob Card**. This could only leave one thirsty, therefore the remainder of the evening was devoted to meeting old friends and beginning the assault on the beer trailer.

As Saturday dawned, low cloud and a hint of rain led to a short lived disappointment. At 8 o'clock, with the arrival of the CH53 helicopter and its spectacular low pass across the DZ and camp site, they were able to confirm a cloud base of 2,400ft. Not brilliant, but undaunted the meet director **Tom Oxley** gave the order to go and the meet was under way with accuracy and jumpers exiting in pairs due to the low cloud base. By the end of the round, 3,200ft. was easily available and we were off to team accuracy for real. By close of play over 480 descents had been made and everyone was happy to retire to the bar to continue the assault on the beer trailer.

Sunday and Monday produced a slight improvement in the weather conditions, but sadly, not sufficient to make a start on style or RW. Accuracy progresses and fortunes ebbed and flowed with each round. **Ahmed Murad** (Dubai), **Jackie Smith** (UK), and **Obaid Salim** (Oman), were fighting for individual honours. Team placings showed



Para Pilot Shop (Holland) giving early warning of their potential with consistent accuracy earning them a good lead over the other 45 teams. Sunday night provided a stage for young **Kevin** to uphold the **McCarthy** name by treating



Chris Clements with the Royal Signals Blue Helmets team.

us all to an impromptu solo cabaret. He may be worth a regular spot at Shobdon Don, if he can get a little more 'meat' into the act.

Monday evening gave us the altitude to begin the Style event and by good fortune almost a complete round was achieved by last light. With 58 competitors involved, this was no mean task and such progress in this area was very satisfying. At close of play the beer trailer was the subject of yet another fierce attack and a few chinks began to appear in its defences.

Tuesday saw a further improvement in the weather and allowed us to ease off on the accuracy to let the RW hotshots loose and the fun begin. Some cloud dodging and holds were necessary at times, but as the day ended, about 1½ rounds of style and 1 round of RW were completed. Further determined assaults on the weakening beer trailer brought a gleam of victory to everyone's eyes and general opinion was that it couldn't hold out much longer.

Wednesday was the day, glorious weather, fantastic aircraft, eager judges and jumpers raring to go, what more could one want. Rounds 2, 3, 4 and most of 5 were completed in RW and a highly competitive situation had developed. Only a few points separated the leaders, Boarder Crossing (UK) 30 points, with Our Way (Holland) just behind. For most competitors and judges alike this was the first competition using the new block system. The comments were all complimentary to the new system and a few minor discrepancies were soon settled. The style made some progress too, bringing us within range of completing round 2.

Accuracy was not forgotten, all 29 novices managed to complete rounds 5, 6 and 7. That evening the beer trailer admitted defeat and was forced to call for reinforcements. This was gladly provided by 'Barre Brau' Breweries - a name not unknown to RAPA regulars. Some 13 hours of continued jumping had left 600 RW descents done that day, video operators **Bob Charters** and **Russ**



Ahmed Murad a happy man at collecting the individual accuracy cup for the third time.

Beckett praying for bad weather and manifestor **George Clarke** feeling warm and confident as one might expect of such a gentleman.

Sadly, Charters had got his way, prayers answered, clouds and wind ruled out all events. However, such is RAPA, all was not lost, a hastily organised fun accuracy competition was added to the programme. Entry fees DM10 (£3.50). Only Pad strikes to count, team made up of any 4 who wished to get together. All jumps free. In a very short space of time 34 teams were declared and the mini champs began. To inject experience and variety, the Sikorski lifted the odd load of 32 jumpers to 12,000ft when the sky allowed - all free. One ambitious attempt at a 32 way round was put to disarray when some Turkey took it out at the 20 man stage.

Friday produced the same weather situation, and led to the mini champs going into the third round to pass the day. Such was the variety of prizes

purchased from the entry fees, that no-one seems to know who got what, as even the biggest Zap had a prize, who cares anyway, it was only for fun.

In spite of the indifferent weather during the latter days we did manage to



The UAE Abu Dhabi Team collecting their medals.

complete round 2 Style and round 5 RW, but only through the good sportsmanship of the few individuals and teams involved.

The now famous end of meet RAPA Party, with free drinks and Disco balsted off at 8 that evening, Bar-B-Q was splendid and the ACC are to be congratulated on their superb efforts. It was no surprise to find the determined few still enjoying themselves until gone 7 on Saturday morning. I wonder how many made breakfast? or indeed if breakfast was made.

The final day had dawned. A planned 45 way was to be the main display at noon. Much effort went into this, serious briefing and thorough dirt dives made it all look very likely. (honestly, it looked great on the ground lads, I was really impressed). Sadly, a 700ft cloud base put pay to that.

To round off the meet and to present the trophies, we were fortunate enough to have the presence of **Major General Rolf Zearling** of the German Army, who is the present Chief of Staff of NATO's Northern Army Group. Having made the 150 mile trip by road, he was in

surprisingly good form. His short speech emphasised the enjoyment displayed by all present during the competition and he remarked on the tremendous atmosphere evident to any visitor. The awarding of vast quantities of silver done, a very impressive low level fly pass by the Sikorski flanked by the two Islanders drew the show to a close.

So many people contributed to this excellent meet that it would be impossible to name them all. However, I feel the following must be mentioned. Our host and competition organiser **Major Bob Card**, his superb staff, the Chief Judge



The Oman Team collecting their medals.

John Laing, event judges **Jack Fowler**, **Jan de Graff** and **Harry Kuipers**. Those superb Sikorski pilots, **Capt. Klaus Althoff** and **Capt. Bernd Nilges**, together with the Islanders pilots **Gerry** what's his name, plus RAFSPA's own **Ray Evans** and **Wing Commander Bob Butler**. The hardworking video crew **Bob Charters** and **Russ Beckett**, the ACC and everyone else involved. I feel privileged to have worked with them all and hope very much to be so privileged again at RAPA 85.

P.S. It was nice to see three successive generations of our BPA NSCO's present at the meet. **Doug Peacock** with his team from Oman, **Pete Sherman** with teeth and **John Hitchin** complete with stomach.

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RAPA CHAMPIONSHIPS 1984 RESULTS

OPEN

Individual Accuracy (8 rounds)

1st Murad (UAE Dubai)	0.14
2nd Uragello (UK)	0.17
3rd O. Salim (Oman)	0.22
4th Voskamp	0.23
5th Brandecker	0.32

Individual Style (2 rounds)

1st Murad (UAE Dubai)	15.69
2nd Rahman Ali (Abu Dhabi)	16.89
3rd Uragello (UK)	18.22
4th Rahman	20.92
5th Ahmed	21.03

Overall Placings

1st Ahmed Murad (UAE Dubai)
2nd tony Uragello (UK)
3rd Abdul Rahman Ali (UAE Abu Dhabi)

RW Sequential (4 way) (5 rounds)

1st Border Crossing (UK)	30 pts
2nd Our Way (Holland)	28 pts
3rd Sensory Overload (UK)	27 pts

Team Accuracy (8 rounds)

1st Para Pilot Shop (Holland)
2nd Oman
3rd UAE Abu Dhabi 'A'

Overall Winning Team

1st Sensory Overload (UK)

Novice Accuracy Champion Open & BAOR

1st Cpl. M.C. Smith (REME)
2nd Drv. L. Robertson (RCT)

Intermediate Accuracy Champion BAOR

1st Lcpl. J. Wright (RAOC)

BAOR

Individual Accuracy

1st Pape (RA)	1.07
2nd Smith (REME)	1.10
3rd Mace (AAC)	1.27
4th McWilliams (REME)	3.17
5th Hutchinson (RAOC)	4.24

Individual Style

1st Pape (RA)	24.36
2nd Slater (RAOC)	25.09
3rd Patrick (RCT)	27.86
4th Mace (AAC)	28.46
5th Pirrie (RE)	30.33

Overall Placings

1st Tim Pape (RA)
2nd Tim Mace (AAC)
3rd Sean Hutchinson (RAOC)

RW Sequential (4 way)

1st Bob Charters to Manifest
2nd Cannonballs
3rd Royal Engineers BAOR

Team Accuracy

1st Cannonballs (RAOC)
2nd RCT
3rd Bob Charters to Manifest

Overall Winning Team

1st Cannonballs (RAOC)

VISITING BRITISH FORCES

Individual Accuracy

1st Cpl. Brian Dyas	REME
2nd Cpl. Nick Norwood	R SIGS
3rd Sgt. Mick Thurman	R SIGS

Overall Team

1st Blue Helmets	R SIGS
------------------	--------

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IT'S OFF TO THE SAVOY....WITH STYLE!

Coloroll must be pleased with the first season of their sponsorship of The Red Devils - they are taking them to the Savoy Hotel in London to celebrate! Yes - **Mr. John Ashcroft** and the directors of Coloroll are holding a Red Devil's Ball, (that's singular! **Micky Munn** usually holds the Team in check by the plural form!). It portends to be a glittering affair with the Colonel Commandant of The Parachute Regiment and many other senior officers present, in addition to a host of Coloroll's trade associates and businessmen. **Terry Guildford** will be in great demand for a few quick dancing lessons in the packing room before December 13th!

To be serious, the sponsorship does seem to be working really well - to the mutual benefit of both parties. The Freds are becoming quite used to meeting hordes of weekend shoppers up and down the country at various Homecare stores. There is also a steady stream of students from Coloroll and the DIY world coming through the system.

Eddie Carroll and **Sean Day** are off to Shobdon on the PI's course; and **Julian Spencer** and **Terry Guildford** will follow a



week later on the Instructors Course. (No, Julian, you can't wear your clown suit!). This will help to maintain the very high standard of instruction on the Team, as we shall shortly be losing another first class instructor in **Chris Allen**, when he has to return to 3 Para.

The weather over the last two months hasn't afforded too many of those lovely autumn days with clear skies, so the parachuting has been rather spasmodic. The Islander has also had to have nearly two weeks at McAlpines undergoing service and repairs. The airframe of an aircraft used in this role does take a lot of punishment, and Delta Hotel, at sixteen years young, has served the Freds admirably, but the quest for a successor is No. 1 on **Micky Munn's** list for Father Christmas this year. To whet his appetite, **Britten Norman** lent a BN2T for a days jumping on the Avenue. The turbine power made nothing of the climb to 10,000 feet and it was WARM inside! It would add a whole new dimension to jumping for the Freds - so Fairy Godmothers or fathers please send your spare half million pounds to this address!

The Team have had three of the new GQ 200 Units on trial (I understand this canopy is to be known as the Raider and NOT Rix's Ripoff!). Despite **Graham Copestake** getting his to malfunction on a demo and landing in a tree - everyone else that has jumped one has been very impressed.

Mark Forbes has good reason to remember one of the days when the weather did permit the luxury of a whole day of jumping. Chancing a perilously low hook to get into the pit, he paid the price with a cracked vertebra, severe bruising and perhaps a timely lesson into the bargain. I doubt that he'll try THAT again. **Adam Wickers** is still suffering from an injury sustained at a display in August. He now has an extra bit of anatomy that he didn't have before! (Don't rush girls, its on his shoulder), and has earned him the nickname Quasimodo amongst his 'friends'. The should MAY have to be broken again to put it right.

3 PARA have had several jumpers on an advanced course with the Team. Unfortunately the weather and aircraft availability combination have played havoc with this also, but **Dave Limb**, **Phil Richmond**, **Brian (Jock) White**, **Jock Marzettig**, and **JJ Ingram** have all achieved some useful experience. **Paul Yeoman** (son of **Ken Yeoman**) jumped on attaining his sixteenth birthday and is now confidently on free fall. Lucifer also jumped on attaining that unmentionable birthday - on the GQ 7 metre aero

conical reserved for geriatrics and elephants - and is now eligible to join the elite clan of POPS!

The Army Air Corps generously came to the rescue with a Lynx for the odd display and some training jumps, and the Peterborough Islander was also pressed into service to save a Coloroll display at Corby.

Keith Saunders and **Dave Moore** have successfully completed a driving course at Leconfield. **Dave Moore** like Leconfield so much that he contrived to fail a couple of times in order to extend his holiday in Yorkshire. There are now three Team vans back on the road, so let's hope that the standard of driving has improved sufficiently to maintain this happy state of affairs.

Steve Greenhalgh has had a fantastic result in the Dorking Triathlon. He came third out of 130 starters in 3hr. 22min. 59sec (1/2 mile swim; 32 mile cycle; 16 mile run) and the two competitors in front of him were no less than the European Chamion and the British Champion. WHAT COULD he achieve with proper training?. He also ran a local 10Km Road Race with **Chris Byrne** and team mascot **Raymond Nixon**.

Neil Dixon has gone back to the Rigging Room - his History of Parachuting is now taking shape along the corridors of power at the Team Room. He has also just completed a fantastic cartoon of a day on the DZ - he really has amazing talent for capturing all those personall idiosyncrasies. Everyone is now looking forward to a sea fishing trip off the South coast which **Micky Munn** has organised for the Team. No doubt **Les Sedgbeer**, fresh from his 25lb Pike catch, will be out for the big one!

Bob Harman is the sole survivor of Harman's Heroes sufficiently solvent to make the Christmas pilgrimage to Z-Hills. With the pound so weak, most of the others are being lured horn home to Mum's Christmas pud and will leave the suntan till Bermuda next season when the Team made a return visit to the island for the Air Display.

The founder of the Red Devils, now Colonel, **Edward Gardener**, has returned to RHQ PARA as Regimental Colonel. Although he may not be leaping from the skies over Queen's Avenue, his son has already come for a student course to keep the family flag flying. So we leave the Freds busily preparing for the festive season, and wishing their fellow jumpers 'Blue Skies' for 1985, and **Micky Munn** still working out how to get a turbine Islander into his stocking!

LUCIFER, BPA 90960



THE WHIRLYBIRDS SKYDIVERS

Dear Martin,

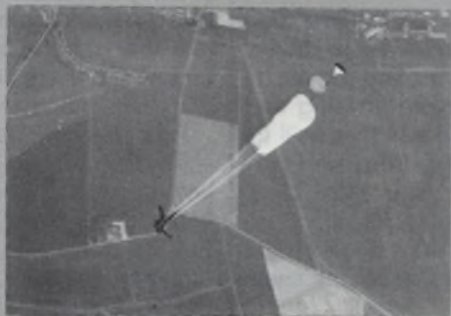
A sign of old age no doubt but it scarcely seems a year since I was reporting to you on the events of 1983. What I wanted to do in 1984 was inject a little more excitement into the displays and I suppose I have to confess to being not a little influenced by the film 'The Gypsy Moths' which was shown on television just after Christmas last year. Do you remember the opening sequence of the jump with the long strap with streamers of old chutes flying from it? Well I've had a strap made but such have been the pressures this year that we haven't got around to testing it yet - watch this space in 1985?

What I did have was a Lofty Thomas special mod of D rings on the front of my wonderhog, just below the reserve and cutaway handles with tie down rings at the end of the leg straps (avoiding the throwaway which has now been positioned on the leg strap dispensing with the belly band) to enable one to attach a custom built front mount cutaway rig to the front of the aforesaid wonderhog. This is a modified reserve with a hand

deployed pilot chute, actually a throw-away I suppose, and with this rig I did a few test jumps at Netheravon. The only 'problem' is the inherent one of deploying a front mounted canopy in a stable position, i.e. you do a swift 180° turn on deployment and go head down - like as not. Anyway it worked, without the necessity of buying a whole custom rig and **Robin Gallon** recorded it all by deploying and flying alongside me with his helmet mounted camera. Of course it is not really practicable to cut away except on an airfield so I had to wait for a suitable opportunity.

The season started very badly. Two jumps on Lancing seafront within spitting distance of Shoreham Airfield on May 12th had to be cancelled because of high winds, so we did a static display. The two **Andys**, **Guest** and **Wildmore** stood in for **Peter Wade** and **Robin Gallon**; to start with we put **Andy Wildmore** on my cutaway rig and inflated it. He dashed across the arena with the greatest of ease. Fired off a few smoke flares and thunder flashes and then tied **Andy Guest** to the bumper of my BMW. With his square inflated he immediately flew to about 20 feet off the ground and we had a hard job to haul him down again. The Spring Bank Holiday weekend at the end of May was gloomy and overcast. We sat on the ground at Petersfield watching our chopper carry damp and dejected punters up to about 900 feet and heard from the pilot afterwards that he had been lucky to skate home over the hills and under the clag. After that the weather improved and we didn't look back. My first demo of the season wasn't under our own banner at all but with **Jim Sharples** into **Jim Crocker's** garden for a BPA Council Meeting. Luckily Jim missed the cross as well. We really didn't start properly until June 16th when we did Bordon Carnival at 15:30, my paddock at 17:00 and Petersfield Carnival at 19:00. I had intended to have a house-warming party that day but the house wasn't finished - we jumped into the field anyway. Regular team of self, **Robin Gallon**, **Peter Wade** and **Tim McCord** out of the good old Jet Ranger. It goes without saying that we certainly couldn't have accomplished that programme from a fixed wing aircraft in the middle of Hampshire.

Apart from squeezing out of a Super Cub Glider Tug at Lasham on a Monday night, the next jump was for the Stars Organisation for the Spastics at Hove Greyhound Stadium for **Dame Vera Lynn**, (for the fourth time). A very nostalgic year with the 40th anniversary of D-Day and Arnhem and Dame Vera appearing at both celebrations. More reminders of how lucky we were on July 14th with two jumps into Le Court the Leonard Cheshire Foundation home near here. Gusty winds, tall trees, a small arena and zero ground wind meant a



narrow squeak over the heads of the crowd could have resulted in my joining the indomitable inmates of that special place. Someone up there is looking after us!

After that the Chipstead Flower Show on 21st July should have been a doddle but the aircraft was an hour late and a rushed dirt dive led to a slow exit and a zap by yours truly plus two others. **Robin Gallon** got in thank goodness whilst the rest of us trudged home from the local playing fields. Really I wish I hadn't mentioned that - I still feel embarrassed about it. Faith was restored on 11th August on Worthing Sea Front when we jumped for the Multiple Sclerosis Festivities for the fifth year in succession. Good four way in clear blue sky - soft landings too on the pebbles - **Tim McCord** landed in the mud. Last but not least we had a crowded weekend on September 1st/2nd. Guildford Show 17:00 hours on the Saturday and 12:00 on the Sunday. Limited to 3000 feet by ATC Heathrow. On the Sunday the streamer went rather a long way and we found out why when we got out. We were just in front of a thunder storm which made it a little gusty! One guest jumper who shall remain nameless but was in fact **Richard Caswell**, missed.

Our pilot for those trips was a veteran of Chinooks in the Falklands, one **Nick Grose AFC**, must have been a bit boring for him - still its good to be alive. After that it was a swift pack and smoke flare replacement and heigh ho for Middle Wallop and the Second Parachute Regiment Association Air Day organised by.....**Charlie Shea Simonds**. On the first job I was using my new cutaway rig. However, my position on deployment was less than ideal and one side cutaway on opening giving me an instant and effortless streamer. Cutaway the other side, back into freefall and down on the cross in time to watch the others do a nice three-way from seven grand.

The final jump was really rather spectacular. Five fixed wing aircraft including two Islanders, Netheravon's Pilatus Porter and a Beaver in formation at 7000 feet led by our Jet Ranger at 3500. The effect was only spoiled by the fact that I had a 24 carat genuine mal and had to cutaway for real for the second time that afternoon. Pains Wessex again sponsored us generously with sixteen smokes for the afternoon and eight thunderflashes - real thumpers. GQ kindly paid for the aircraft time after entertaining up to a trip round their factory earlier in the season.

For the future we are discussing a sponsorship deal and lining up bookings for 1985, our eighth season. Still getting good vibrations from the whole scene - how's the road running going? Once again Blue Skies and Soft Landings.

PIERRE, D2552

REPORT ON A.F.F. INSTRUCTOR COURSE

From October 16-23, The School of Human Flight ran an AFF Instructor Course at Pampisford at the request of London Skydiving.

The School of Human Flight have probably the most experienced AFF Instructors in the world. They had spent the summer setting up AFF programmes in various European Countries including Italy, Switzerland and Norway.

The course was run very professionally and to the highest standards. All aspects were covered thoroughly. In my opinion AFF can be performed safely with a number of recommendations:-

1. All AFF Instruction must be run under the auspices of the BPA, with each operation being registered with the BPA and run from an affiliated Club/School/Centre etc.
2. All AFF Schools must be run by a BPA Approved AFF Instructor who is a BPA Advanced Instructor, taking overall responsibility for the operation of that school and who is normally present when AFF jumping is taking place.
3. All ground training and classroom work must be undertaken by a BPA Approved AFF Instructor who is at least also a BPA Approved Instructor.
4. Briefings, Air Instruction and De-Briefings can be undertaken by a BPA AFF Assistant Instructor.
5. AFF jumping will only take place when at least a BPA Approved AFF Instructor is present.
6. No person will be accepted as a BPA AFF Approved or Assistant Instructor unless they have at least 1000 descents and 10 hours of Freefall time.
7. Having successfully completed an AFF Instructor/JM Course, proof of that and the above (6) must be presented to a JNCSO before BPA rating is given.
8. Only tandem rigs designed specifically for AFF Instruction can be used, which must include an AAD, Stevens Lanyard, and a main ripcord that can be activated from either side. Main canopies must be the very large docile type.
9. No more than three AFF students will be trained on any one course.
10. For AFF students trained in Britain or returning to Britain having successfully completed 7 levels abroad, there will be a Level 8, consisting of at least two solo jumps, one being a 1/2 series, short track and waive off, the other being a 'clear pull' both these jumps must be successfully completed before being passed off level 8. At that stage Level 8 and Category 8 can be combined and the student can continue in the Category System up to Category 10.
11. Any AFF student returning from abroad who has not completed Level 7 must only continue at a Centre where AFF is taught.

If AFF is permitted in the UK the above recommendations or any others required by STC/BPA should be reviewed after a year and what experience gained should be used to change or update those made.

I do not believe AFF Instructor Courses could be run by the BPA at present until more knowledge has been gained.

TONY BUTLER, JNCSO

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SELF-PORTRAIT

JOHN CARTER EXIT
FROM FUJI

(Aircraft not Film)



THE PHYSICS OF FREEFALL

'The Physics of Freefall'. The general lack of understanding of the subject amongst fellow skydivers has inspired me to undergo research on the topic.

For the record I have an Engineering Degree and am currently working for Rolls Royce Aerospace in Bristol. Although the nature of my work is governed by the Official Secrets Act I work as an Aerodynamicist investigating the aerodynamic problems of installing high performance jet engines into advanced Military Combat Aircraft.

P.J. BEGLEY, C5584 (Cat. IX)
BPA110269 Swansea Parachute Club

1.0 INTRODUCTION

Many skydivers at some stage during their progression be it at student status or RW become inquisitive about what happens when a body is in freefall. This subject is not always discussed in sufficient depth, somewhat understandably, due to the lack of relevant knowledge. Indeed the laws that govern skydiving are tangled up in Aerodynamics and Maths and very little research has been carried out on this subject (References 1-3). NASA conducted some tests as far back as 1947, in the USA, but these were at a very elementary level (Reference 4).

This paper is intended, hopefully, to outline some of the basic physics of freefall to enable us to become more aware of our 'medium' in order to pursue the ultimate challenge of RW.

2.0 DEFINITION OF TERMS

Rates of Change, velocity, acceleration and Drag need some explanation at this stage to ensure that the mechanics of freefall are not confused entirely.

2.1 Velocity

In today's modern society we are all used to velocity - be it cruising along a motorway or travelling on an airliner. Both cases involve motion at **CONSTANT VELOCITY**. In order to study this further, some elementary maths/mechanics is required. Fig. 1 shows that velocity is the rate of change of distance with respect to time. Enough for now!

2.2 Acceleration

We have all felt the effects of

acceleration. Any motorcycle pillion passenger who has had to hold onto the rear handgrip as the bike pulled away has felt acceleration. A jet airliner during take-off. A sports car doing a fast start. That is acceleration - and it turns your stomach inside out!

Fig. 2 shows that acceleration is the rate of change of velocity with respect to time. It can be seen that during acceleration the velocity increases with time whereas an object in motion at a constant velocity, during a given time interval, has zero acceleration. With reference to Fig. 2 it can be appreciated why car performance (acceleration) figures of say '0-60 mph in 13 seconds' are quoted - A rate of change of velocity with respect to time.

The S.I. (metric) units of acceleration is m/s^2 . G-Force (positive) is another name given to describe acceleration. $9.81 m/s^2$ is 1G. High levels of G-Force are experienced by fighter pilots during combat and by Astronauts during lift-off.

Using elementary equations of motion (Ref. Appendix I) it can be shown that a stationary vehicle accelerating to 100 mph in about 4.5 seconds experiences +1G.

Furthermore by plotting the tabulated data in the standard issue parachute logbook it can be seen that acceleration ceases after 12 seconds.

2.3 Drag

As a ship moves through the water a wake is produced. This wake produces a force which opposes the direction of motion of the ship - 'it tries to hold it back'. An aircraft or car travelling through the air is also subjected to such forces known as DRAG.

Drag is the resistance to motion caused by the effects of the viscosity (or 'thickness') of a 'fluid' around a body. The aerodynamic laws that govern these negative forces involve complex mathematical study of the effects of viscosity of the 'fluid' adjacent to moving bodies and involves a knowledge of fluid mechanics which you will be spared from!

Generally, the DRAG FORCE (D) on a body (in freefall) can be equated to the following parameters:-

$$*D = \frac{1}{2} e V^2 ACD \quad (1) \text{ where}$$

e	= Density (kg/m^3)
V	= Velocity (m/s)
A	= Area (m^2)
CD	= Drag coefficient
D	= Drag Force (N)

() for those interested the units are explained in Appendix I.

*This DRAG FORCE (D) is known as Form or Pressure drag.

A car moving at 100 mph, say, will use

energy (engine power) to overcome this Drag Force. We are all aware of car manufacturers who claim to be able to improve fuel consumption by reducing the Drag coefficient (CD), hence Drag force (Equation (1)).

This equation (above) also shows that Drag is dependent upon density which reduces with altitude. One of the reasons why civil aircraft cruise at altitude is because, for a given airspeed, the drag force is reduced compared to that at sea level. Consequently, fuel consumption is improved considerably.

Nevertheless, a skydiver in freefall is neither a car, a plane nor a ship - so to continue.....

3.0 TERMINAL VELOCITY

After exiting from a plane a skydiver will accelerate. The increase in velocity results in an increase in the Drag force (equ. (1)). Ultimately a steady state condition will be reached where all the dynamic forces (in this case weight and Drag) are in equilibrium. Velocity will now be constant and acceleration (dv/dt) will equal zero. The weight and drag forces will be equal and opposite.

$$\text{i.e. } W = D \quad (2)$$

3.1 Factors Influencing Terminal Velocity

Equation (3) shows that terminal velocity is influenced by three factors:-

- A Skydiver's
- 1) Weight (W)
 - 2) Area (A)
 - 3) Drag coefficient (CD)

Gas Dynamics show that Density (e) is influenced by atmospheric Pressure (P) and Temperature (T): $e = \text{constant} \times P/T$ i.e. Fall Rates will increase on hot days and at higher Field Elevations (i.e. as e reduces - VT increases, ref. equation (3)).

The later two need some explanation

- 1) Area can be equated to Body Position (Big or Small).
- 2) Drag coefficient can be equated to Body Streamlining (Arch or De-arch) (A streamlined body has no wake hence no Form Drag).

Obviously, it can be seen from equation (3) that the heavier person will achieve a greater terminal velocity though terminal velocity can be reduced by an increase in area (2) or Drag coefficient (3). Which one of these two factors has the greatest influence on fall rate is still the subject of some controversy. In the absence of comprehensive wind tunnel tests the battle will have to be fought out in the sky!

4.0 DRAG COEFFICIENT DATA

Fig. 3 shows the Drag coefficients of various shapes.

These figures indicate that the greatest change in rate of fall (with respect to body streamlining) can be achieved by changing from a 'neutral' (FLAT) position to max-arch (fast fall) position which reduces CD from 1.17 to 0.38 (a 68% change) whereas changing from a neutral - to max de-arch (slow fall) position increase CD from 1.17 to only 1.42 (a 21% change). Simply what these figures show is that a skydiver has a far greater potential to fall FASTER than to fall SLOWER. Hence from a neutral body position a skydiver will fly more efficiently going down to a formation rather than having to de-arch and fly up to it!

5.0 AIR RESISTANCE AND RATE OF FALL

To simplify the following explanation a new term shall be introduced here.

With reference to equation (3) the product of A and CD (i.e. $A \times CD$) can be equated to D/q - An aerodynamic term known as Drag Area (Ref. Appendix I for further details if interested).

One of the earlier APOLLO/NASA space missions demonstrated that in the absence of air resistance (i.e. $e = 0$ SO $D = 0$, ref. equation (1)) ALL objects in a gravitational field accelerate at the same rate. With reference to equation (3) it becomes clear that, since $e = 0$, terminal velocity $\rightarrow \infty$ (infinity) i.e. both objects (a feather and a lump of metal) accelerated at the same rate but to different terminal velocities near ∞ - An infinite velocity can never be reached so both objects remained together!

This experiment in space confirmed that all objects under the influence of a gravitational field will accelerate at the same rate irrespective of mass (weight) as established by Galileo. The acceleration in the atmosphere on earth is equal to 1G.

Skydivers accelerate at various rates in our atmosphere though, because of the presence of air resistance hence DRAG and, as shown earlier in equation (3), skydivers will reach various terminal velocities due to differences in their Drag Area ($CD \times A$) and weight. Rates of acceleration to terminal velocity (first 12 seconds of freefall) is therefore independent upon weight. Drag Area has the ONLY influence. To put it another way, a small person will fall faster than his/her counterpart during acceleration to terminal velocity but the heavier person will generally achieve the fastest fall rate as we know!

5.1 Or to put it yet another way:- The typesetter is bored with yet another way!!!!

In the outer extremes of our atmosphere Skydivers (in space suits) would have velocities somewhat greater than 120 mph and RW would be impossible

(i.e. No air resistance - No Drag - No body control) but fall rates would be identical in the absence of air resistance (as explained!).

'Ultimately' each skydiver's respective terminal velocity would be reached following rapid deceleration and frictional heating of the body during re-entry into the atmosphere. Such adverse negative G forces (deceleration) and extreme temperatures imposed on the body during re-entry would basically.... RUIN YOUR DAY. Parachutes would not be necessary!!

6.0 CONCLUSION

Hopefully these pages have not

blinded the reader too much with 'science'. Unfortunately the nature of such a topic does involve a little scientific analysis as is often necessary in order to gain an understanding of not just WHAT WE SEE but WHY WE SEE IT!

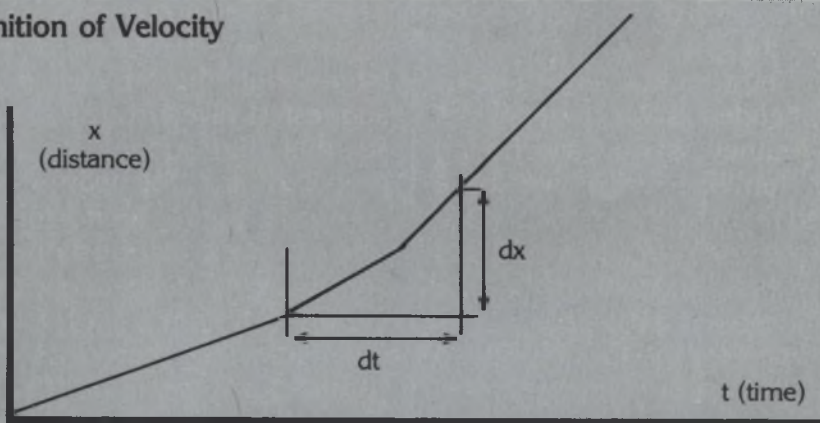
If knowledge is the root of learning then understanding must be the key to advancement.

If a few skydivers can benefit from this paper I feel we may be just that one step closer to an understanding of the ultimate challenge. Hopefully, many more will continue to fulfil man's greatest Quest - That of Body Flight. See you there.

P.J. BEGLEY

Definition of Velocity

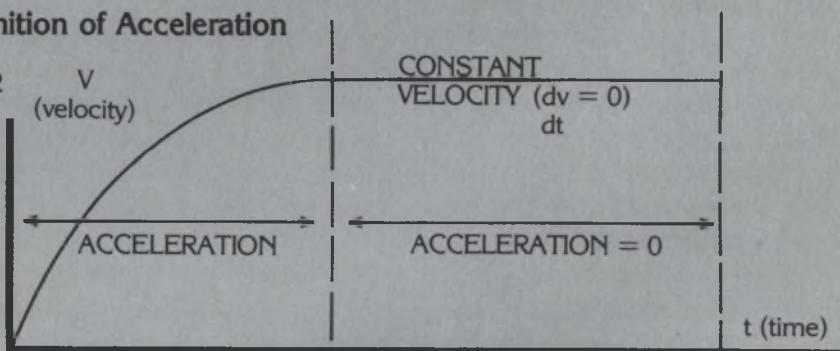
Fig. 1



For a given interval of time
 Gradient of line (slope) = $\frac{dx}{dt}$ = VELOCITY
 = Rate of change of distance with respect to time

Definition of Acceleration

Fig. 2



Gradient of line = $\frac{dv}{dt}$ = ACCELERATION
 = Rate of change of velocity with respect to time

APPENDIX I

- (i) Ref. Section on Acceleration
 Equation of motion used: $V = U + at$
 where
 V = Final Velocity (m/s) SI (Metric Units)
 U = Initial Velocity (m/s) M = Metres
 a = Acceleration (m/s²) S = Seconds
 t = Time (s) Kg = Mass $1kg$
 $N = \frac{Kgm}{g^2}$ = Force (Drag or Weight)
- (ii) Ref. Section Air Resistance and Rate of Fall From Equation (i) $D = \frac{1}{2} \rho V^2 ACD$
 $\frac{1}{2} \rho V^2 = q$ = Dynamic Pressure
 $\therefore \frac{D}{q} = ACD = DRAG AREA$

REFERENCES

- (1) How fast a Man falls, Aeroplane 57 (1939) p. 445
- (2) Terminal Velocities of parachutists near Sea Level, quoted in Journal Aeron'l Sciences 1942 p. 293
- (3) Fluid Dynamic Drag - Aerodynamic drag and Hydrodynamic Resistance. Sighard F. Hoerner 1965
- (4) Webster, Free Falls and Parachute Descents in the Standard Atmosphere, NASA Tech. Note 1315 (1947)

The 7em Coupe du Monde de Vol Relatif was held from 29th September to 7th October at Lapalisse, near Vichy, France. It was probably the largest World Cup there has been with 36 4-way teams and 14 8-way teams.

Since winning the Nationals the British Team had continued their training at weekends with the very welcome assistance of RAFSPA (both moral and financial) and the Ben Jonson landlord (both victual and financial). To both parties we are extremely grateful.

At the end of September the four and eight way teams, along with a large contingent of other Brits, headed down to Lapalisse. The journey is now becoming quite familiar since we have trained there for the last two years, as have several other British teams. (It is so familiar that the main problem is keeping ones eyes open for the French Speed Cops!). On arrival the view was just as we expected with the Danes already installed under their draped canopy and flag. Had they really been away since June '83? The camp site was, of course, a little larger than usual.

The day we arrived was perfect, for normal and competition jumping. Shorts, bikinis and suntans were the order of the day and two Porters wer up and down like yo-yos. The prospects were looking good. Most teams were finalising their training and testing the video systems, but the British girls certainly had more fun celebrating **Jackie Smith's** 3000th jump. Well done.

Saturday saw some more practice jumping and the completion of most teams, including all the British ones. Our total count was five 4-way teams and three 8-way teams (each with one from Wales). Sunday was the official start of the competition with an opening ceremony and the team draw. Unfortunately this took place in the afternoon when the weather was good and jumping was suspended. Little did we realise the folly of this.

There were 36 registered 4-way

and 14 8-way teams, representing 16 and 11 nations respectively. A particularly interesting 4-way team was from Liechtenstein. It happened to contain 3 Americans (all from Mirror Image) and a Swiss. (At least Jeff's brother lives there!) The team draw resulted in **Neville Howarth** getting us 36th in the 4-way, and myself drawing 12th in the 8-way. We hoped it would not be an omen.

On the Monday the official practice jumps were started. It was clear at this stage that we were to get only one in each event despite the expectation of three. Interestingly the organisers drew suggested dives from the pools, so that the judges could be prepared and the teams could compare their performances. There were a few busts here as some teams deliberately tested the video system at the top end. It was clear that there was to be some high scoring. On the Monday evening the competition draws were made. The early rounds of the 4-way were dominated by 6-point sequences and round 10 was to be a pure random (I am told that the chances of this are 150-1 against).

Tuesday was full of promise, expectation and precipitation. The obligatory rain and cloud dominated the morning, but half the teams did round 1 of the 4-way in the afternoon. It was abundantly clear that competition would be close at all levels. In the evening there was a reception at the Mairie, with the Mayor himself. Free wine, bilingual speeches (even if a struggle for Isobel), and traditional skydiver behaviour, so we got ejected a little early.

Wednesday had the best weather of the entire ten days. The first round was completed, and followed by the next three. The organisation proved itself with three Porters running almost continuously, seemingly without refuels, and the judges were unseen for hours. Tension was high as Orisse (Canada) and Icarius (France) tied for 1st place on 38 points. Coca Cola (France)

lay 3rd on 36 and Golden Knights, Gold (USA) were 4th on 34. GB were not likely to be in the medals after a couple of indifferent dives, one including a rebuild, but were lying in joint 6th place on 29 points. Another GB team, Monday's Child, had a very bad fourth round and lay 15th on 25 points. The two British girl teams were not doing too well after a bust or two. Pays de Galles were doing a little better.

Most teams were raring to go to separate the many ties, but it was not to be. Thursday saw the 'tail-end' of a cyclone which nearly decimated the campsite, and Friday was little better. However it was possible on Saturday to start the 8-way event. There was a fair mixture of trained and 'scratch' teams. One round was needed to separate the two. The Golden Knights displayed their experience with a blistering 9 points to lead with Cyclone (sic.) of Canada second with 7. GB were 5th with 4 points complaining as usual, that their Compressed Accordion must have been $\frac{1}{2}$ sec in time and not out. The Girls 8-way, Octopussy, scored 2.

It was clear by Sunday that the meet could not be completed even to a minimum. The organisers continued to try to break the tie in the 4-way. This was achieved with the video room packed as Orisse put in a very clean 10 points on round 5. Icarius followed amidst total silence; 1, 2, 3...8, 9, 10/beep. Was it in or out? Nobody knew except the judges who seemed to take an age. Eventually word spread that Orisse had won by one point.

The closing ceremony was now upon us so the weather cleared properly for the first time in a week, and the medals could be awarded in sunshine! The organisers had decided to call the competition after only 4 and 1 rounds, despite the rules explicitly stating that a minimum of 6 rounds are required in either event. The Golden Knights displayed classic sportsmanship by handing their 4-way medals to

WORLD CUP 1984



Coca Cola of France who beat them, but were not given the medals since only one team per Nation could be placed.

In general the meet was well organised, especially when jumping was possible. They operated on a saturated runway which most people would have said was unusable, and even did away with their sacrosanct lunch breaks. The centre has good facilities and buffets and parties were well provided.

There were two video systems. The primary one belonged to the French federation and was used for all judging in their well equipped van. The other one belonged to the Danes. This was a superb system with a mirror lens and a monochrome camera. It could track an aircraft above thin cloud even when invisible to the naked eye and the colour system.

Some people never listen. The judges' interpretation of the rules was liberal in that the intent of the

dive designer was considered, and it was a shame that no British registered judges were present to study the new Block system. This is not to say that the judging was slack, since several teams were busted for breaches, but it was respected by all the participants.

Overall the competition was a success, tinged with disappointment over the weather, and the attitude of the French regarding the rebate on the entry fee. A worthwhile experience for all who attended.

BRIAN R. MASON

HIGH FINANCE

Following a Summer of hectic fund raising through sponsored parachute jumps, the NSPCC organisers were able to hand over a cheque for £40,000 on Sunday 14th October, 1984.

The cheque presentation was made at the Thruxton Parachute Club to **Mr. John Lowe** who is Deputy Director of the NSPCC. The £40,000 was raised at 11 Clubs around the Country, with Thruxton raising the highest amount in excess of £11,000. For this reason, the National presentation was organised by the Thruxton NSPCC representative, **Penny Hurty**, a spritely 53 year old who has also taken a course and become a regular Club Member.

The responsibility of organising the cheque presentation fell to **Bob Dowling** who was CCI at Thruxton until recently, and myself. We decided to cheat and make a few jumps with a banner in the form of a £40,000 cheque in advance of the presentation.

Our first jump went well and so we decided to call in our photographer, **Charlie Shea-Simmonds**. Charlie arrived as the weather closed in and we spent a frustrating day waiting for the cloud to break and kicking ourselves for not having the confidence to use the camera on our first jump.

The following morning saw a break in the cloud and we were soon airborne. This jump didn't go so well, the cheque folded in the middle, obscuring the figures from the camera. On landing, we discovered the cheque was slightly damaged and so had to hold while **Jackie Wright**, who is one of the owners of Thruxton and an advanced rigger, made some hurried repairs.

After lunch the cloud was well and truly broken and ideal for aerial photography. We made a quick call to Charlie's office and all three of us were soon airborne, courtesy of **John Ball**, who provided the DZ and Islander aircraft. This jump went well, a good, clean, linked exit from 10,000 feet, with the cheque flying withing 3-4 seconds. A quick right turn to face the sun and by 8,000 feet Charlie was clicking away, producing some fine shots of us and the NSPCC's cheque. When it came time to open, Bob jumped out and we both held on to the cheque while his canopy was deploying I then let go, leaving him with the cheque and giving me a free hand to dump.

We all decided the results were good and the NSPCC were delighted with the pictures, which they duly sent to all National newspapers.

The next job was to film the jump with the video cameraman for TV South. This, however, didn't materialise, as **Kevin McIlwee** who had agreed to do the filming backed out at the last minute, leaving us no time to arrange a replacement (I always said we should have used **Simon Ward**).

The day of the presentation was glorious, clear skies and bright

sunshine. Many of the people who had jumped for the NSPCC at Thruxton arrived early and the Club staff had their work cut out, giving recaps and despatching many of the old faces on their second and third jumps. Penny arranged for a marquee to be erected, in which all the guests could mingle and meet up with others who took part in their courses.

The cheque was presented to Mr. Lowe at 3.00 p.m. by Bob and myself, after jumping from the Club Cessna and landing in front of the Marquee. Bob managed to successfully land with the cheque tied to his leg and promptly fell flat on his face, or was it his backside? (I can never tell, he is so short).

Mr. Lowe thanked all the Clubs involved in the Fund raising and **John Ball** for the use of his Parachute Club and aircraft for the presentation. He made it clear that the cost of the reception and the cheque presentation came from **Penny Hurty** and her local organising committee and not out of the funds raised by the sponsorship. Bob and I were presented with a framed photo of the jump and two bottles of rather nice wine.

During the reception, photos of the jump were on view, but the man responsible for them slipped quietly away without any acknowledgement. Charlie, I would like to thank you for a first class photographic job. Without your advice and sharp skydiving, the pictures would not have been possible.

I am only sorry the pictures did not get into the National Press, but unfortunately the story clashed with the Brighton bombing. The NSPCC may have lost their publicity on this occasion but we were happy to send them away with £40,000 and plenty of skydiving stories to bore their friends with over the next few months.

I would like to close by thanking all the clubs and sponsored jumpers for a good fund-raising effort on behalf of the NSPCC in their Centenary Year.

DENNIS WOODS, D3642



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IIIrd CRW WORLD CUP

AUSTRALIA 1984

IIIrd CRW World Cup Results

8-Way Speed

Country & Team	Total
France	6.20.87
USA - Freebud	6.22.37
GB - Royal Marines	7.26.61
Australia - Beaver Leavers	8.59.32
New Zealand - Kiwis	9.15.61
Australia - Quantas	10.13.84
Switzerland - Rouge & White	8.36.07
West Germany	13.35.30
Australia - Northern Pieces	

4-Way Rotations

Country & Team	Total
China	137
Australia - Rooz	133
USA - Budweiser	132
Australia - Axis	131
USA - Tension Free	126
New Zealand - Silver Days	126
Canada - Staggering	119
France - 1	119
New Zealand - Cruical	94
GB - Royal Marines B	93
Switzerland	93
GB - Royal Marines A	89
Australia - Throw Downs	76
West Germany - 1	63
France - Uranos	57
GB - APA C	55
West Germany - 2	47
Indonesia	42
Malaysia	1

Excellence. It is not enough to just pursue it, you must attempt to gain on it! In France in 1982 excellence was considered the sub-one-minute eight stack; in Australia 1984 it was achieved on 15 occasions by four different Nations!

Now I know Toogoolawah doesn't exactly stimulate images of bright lights and Hollywood, but nothing short of the greatest recognition should be shown to two guys that spearheaded a massive attempt to provide the ideal platform for the 160 competitors of 39 teams, from 11 Countries to achieve their goal. Organiser **Dave MacEvoy** and Meet Director **Gene Bergingham**. With a dedicated bunch of helpers they made the Ramblers Drop Zone Toogoolawah, the only place in the World for CRW workers to be, and we had the pleasure of being the first team there for the Training Camp. Given the almost guaranteed fine weather, Gene indicated he hoped to run the competition from dawn (right through the head of the day) to dusk, and that is how we'd run our training camp. 6-7 sometimes 8 CRW jumps a day with the idea that we may well be expected to jump with that intensity during the Meet. Additionally, we had to combat the dreadful turbulence experienced. Midday, our average rotation training scores of 13 would usually fall to 9 or 10 during Midday, and the Speed Eights times from around 1:05, deteriorated sometimes to an incompleteness!! It was in this area we were indeed concerned.

On a lighter side the National and Local TV Channels would send their helicopters, film crews and long legged blonde presenters to report on these strange Pommies (that never actually winged much) who seemed not only to enjoy throwing themselves from aircraft, but did it as part of their job. The media actually had a field day with us and we would happily collect the Newspaper articles and watch each evening a new report on TV. (Cheers Blue!). But we still trained alone and with our training dives now showing more consistency and an encouraging arc of improvement we needed to know what the rest of the World was up to. Switzerland, France and West Germany arrived, weary, torn and battle scarred. Jet-lag from Europe is a real pain and everyone suffered. Canada, China, two



Nigel Watson Clarke holds up a three stack.

of the Aussie Teams, and New Zealand signed in a couple of days later. Now the dozen or so flag poles were going up and instead of the DZ being exclusively ours, a real International atmosphere gripped Toogoolawah. Of course, the broken English fireside chats on CRW went on for hours each night, and



Brits in Aussie.

the rubbish skips soon became full of Fosters and XXXX cans. In Australia, beer is the common language and barriers are easily broken.

With the arrival now of all these teams it became obvious that a Midday halt to practice and competition would be in everyone's interest. It was sometimes around 90° and the thermals reached up to six grand on occasions, making it difficult or even dangerous to perform any of the three disciplines. The answer was easy; 0530 starts through to midday, and two and a half hours around the pool and writing postcards home until the conditions improved. A couple of days before the draw the USA, Malasia and Indonesia completed the family and a smashing surprise from England, five more guys from the APA made the effort and financial commitment to attend the biggest, most important CRW event ever held. Clearly our (Royal Marines) strength lay in the Eights, finishing the training camp the only team to crack the one minute mark, morale in the Marine Camp was high. So the stage now set for ambition, disappointment, controversy, triumph, achievement, victory and incidentally some Canopy Relative Work, some would consider impossible.

Budweiser immediately set the standard in 4-way rotations in round one, as they landed the Manifest piped, "Budweiser, USA, with a new World Record, 18 Points". Perhaps a standard just too hot for some of us, especially when the Peoples Republic of China managed only 12 points. The rumour was they had misread the rules and thought the time started as the first guy rotated, it was a dreadful mistake but one they immediately rectified with some sensational scores in later rounds. The "Big Guns" with much the same teams that competed in France in '82, were back again and with the PRC an early pattern quickly emerged. It was almost as if we had three levels of competition in one big league and each section providing its own competition standard. Our A & B teams enjoying keen competition from New Zealand, Switzerland, France and each other, and if because of that there wasn't quite as much pressure on us as the leaders, believe me, that was all very quickly going to change as the discipline switched to the 'eights'.

I actually find the ride to altitude on an important competition dive a very lonely and personal experience. Its time to gather all your resources, depth and experience and try and channel the adrenalin and apprehension into a positive attitude. The expression on your team mates suggests they find it a similar experience and its all to be released in a, by now common command, Ready, Set, GO!! Once out of the aircraft it is down to results, but not on our first round of the eights. TC Topping has the first Mal' on the Avengers and cutaway leaving seven of us with a lonely canopy ride down from seven grand. The re-jump

was disappointing and already France and Freebud open up a gap on us with Australia's Beaver Leavers and QANTAS right behind us. By the end of three round with two bitterly disappointing dives we still hold 3rd and acres of room for improvement, an improvement which thankfully was to come, but not without some real scares.

We had decided reluctantly early on in our training to quietly give sequential a miss, we had too much work to do getting ourselves to standard in the Fours and Eights and we felt adding a third discipline would only succeed in effectively watering down our training. It was a good decision, we had the uninterrupted pleasure of watching Tension Free (USA), Silver Days (NZ), France and others display some outstanding CRW. How about three or four diamonds pre-dive? It was common place, and World Records falling continually with ten and eleven points in time. The truth be known, we are a long way behind and so much to learn. Silver Days cemented it all by landing a Diamond approximately three metres short of the pit!! Tension Free secured a convincing Gold, Silver Days with Silver, and France with the Bronze.

However, our real interest lay in the remaining two events, but after three rounds the 'guaranteed' Queensland Spring weather pulled a real flanker, we had a dramatic storm one Wednesday evening which everyone enjoyed playing in. The next morning no blue skies, and time to clear up the debris, amazingly we never saw canopies in the air for three and a half days and the Third CRW World Cup ground to a halt. Recommencing after a three day break at 0500 and everyone was hungry for CRW. Hungry!! Our score reflected this eagerness with the only sub-minute in round 4, the USA managed their worst dive of the meet and subsequently costing them dearly. The scores of the remaining rounds are there for you to see, France piling the pressure on the leaders the USA. Our attempts to catch them resulted in two dreadful dives. However, only two seconds behind us, Beaver Leavers would come out in sympathy with us each time we screwed up and two crackin' last dives to finish under agonizing pressure secured us the most coveted CRW medal since 1980. BRONZE FOR GREAT BRITAIN!

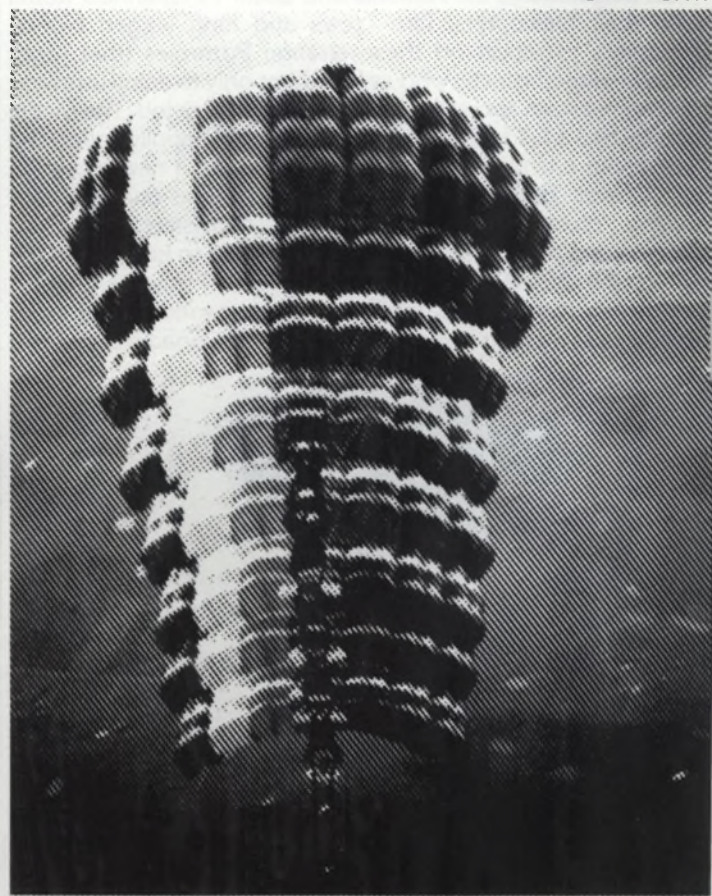
The battle up top was something else. Imagine for a minute a beautifully warm, clear, Queensland evening with only time for two more dives - USA and France to complete the Meet. With almost identical scores, Freebud pulled off an amazing 51:74 seconds in their final dive. They could only now stand around the fire with everyone else, wait and watch what France could do. Exit!.....less than 43 seconds later an enormous cheer destroyed a dusk quietness as the French team completed eight. A completed eight it was, but not for long; the bottom two dropped, they had to rebuild. 56:58 seconds was the unofficial score as they landed and Freebud celebrated! But again, not for long! A mix-up and protest tainted slightly a superb Meet. In the morning France was given the result, but this time not so much celebrating.

The last day's jumping was a good day for us, we all had four rounds of Rotations to complete and running parallel with the kind of mood we were in, those remaining four dives had everything competing is about, and above all - FUN!

The Peoples Republic of China stormed away with a very popular Gold. Rooz pulled back on Budweiser for Australia's lone medal - Silver, and Budweiser - a fine Bronze.

So from shorts and T-Shirts to shirts and sometimes even ties, off we went to a grand dinner/prize giving event and five hours of free drinking, eating and merriment. I guess the prize giving is always an event designed for the prize winners and after so much hard work, disappointment, training and more than our fair share of scarey bits, we were determined to enjoy it. However, standing up there, medals and all is different; milking a five minute standing ovation from 200 skydivers was unassumably emotional, and surely a goal for every skydiver in any discipline to strive for. Time now to really celebrate and talk of the 1986 World Championships. An event secured by the success of this one, and by the unquestionable evidence that CRW has matured internationally to a standard never dreamed of a few years ago. Secured by a unique commitment by CRW workers and their enthusiasm for their part of this sport. For my part, it is quietly satisfying that International CRW is so strong and gathering pace. Believe me, the 1986 World Championships should be an event for every reasonably inspired CRW worker to start working towards. There are some more medals to bring home.

Merry Christmas
NIGEL WATSON-CLARK
RM CRW Team



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CARL'S DOG EUROPEAN 16-WAY & 12-WAY TEAM (VISITS A FEW WET LAMPOSTS)

The idea was for a group of sixteen people, most of them knowing each other, to get together and compete in three meets for the '84 season. The first one being the Weston 12-way (which you probably read about in the last mag), then the European 16-way meet in Teuge (Holland) and then on to the so called 16-way 'World Cup' in Ferté Gaucher (France).

The first time most people knew who they would be jumping with was as they walked into the bar at Sibson one Friday Night. — "Hellow, why are you here?" — "Oh, I think I'm on a 16-way team." And so began our only weekends training (many thanks to **John Meacock** and **Paul Hallard** for organising some excellent formation flying). We made five training jumps, **Rob Colpus** choreographing it all. Most of the dives were two points and the idea seemed to be in getting everyone relaxed in the air (and ground).

Next weekend and 12 dogs made their way to Weston bringing back 12 shiny gold medals, and only licking a few wounds.

Nine days later and four vans struggled to Teuge, **Mike McCarthy** only just finding his keys in time to make the boat.

The aircraft at Teuge were: 1 Porter, 1 Islander and 2 Cessna's, the flying was organised so that the Porter would be continually flying, meeting the Islander at 13,000ft dropping a team, descending picking up half a team and joining up with the other half in the two Cessna's already aloft (jump run was always exciting, "Let's hope we've got the right team guys!")

There were a number of teams including **Tim Maces** international mixture of Fresh Air Fruit. The meet was scored by totalling the number of grips in the formation with a bonus for completing the second point - but you only scored grips on the 2nd point if you completed the first formation.

Carl's Dog came out in the lead after the second round. Then it rained and rained and rained for the next three days - happily though we were well entertained in the bar (and **Sam Spence's** Wang) on the airfield. So with the 12-way won and one

meet wet, we left Holland (no medals as the meet was eventually called off).

Undeterred the Vietnamese Van People oved to France two weeks later. This time the aircraft choice seemed more sensible (less exciting) with one Twin Otter. Sadly our performance was definitely not at its peak and although we seemed to be the only team to be having a good time on the ground there were big problems in the air and we ended up in 4th place, with the French making the gold and Fresh Air Fruit in 2nd.

Thanks to the owners of the four vans who had to put up with endless parties in their mobile homes and turning them into discos or night clubs - thanks to **Dave, Sandy, Chris** and **H.**

Many thanks to **Rob Colpus** for getting it all together and **Mike McCarthy** for the scarves (sick-squid!)

The name 'Carl's Dog' comes from a mountain, a dog, **Carl Boenish** and a sick T-Shirt.
P.S. Beware of the Dog!

1st INTERNATIONAL HOT-AIR BALLOONING /PARACHUTING COMPETITION

In October this year the Austrian Aero Club organised for the first time an international accuracy competition combining the sports of hot air ballooning and parachuting. The venue for this event was Oberwart, 100 miles south of Vienna and only 12 miles from the Hungarian border. Ten teams were competing, with representation from Austria, Germany, Switzerland, Holland, Hungary and Great Britain. The British team consisted of balloon pilot extraordinaire **Graham Turnbull** and N.W.P.C. parachutist **Steve Millard**.

The 1000 mile drive across Britain, Belgium, Germany and Austria was an endurance test in itself. The team nearly came no closer to Oberwart than just

crossing the Channel due to difficulties with exporting a balloon through Belgian customs. However a cheque for £2,500 to guarantee the return of the balloon solved this problem. (It's as well the customs did not guess the real state of my bank balance! SGM)

Finally however, the plains of Oberwart were reached and we settled into the accommodation provided by the organisers, discovered what the competition rules were (!) and met the opposing teams. The different events all followed the same overall form. An extensive weather briefing preceded the event with wind directions and speeds at ground level, 3000ft - 5000ft and 10000ft given from a number of surrounding sites. The

pilots were then given a minimum and maximum radius from the target site in which to take off. At a minimum height of 3000ft (but no maximum height) the parachutist was required to exit and land on the target. The balloon meanwhile had to descend to 100ft and drop a marker as close as possible to the same target. A complex points system gave individual marks to the pilot and parachutist and also a combined team score.

The first morning was scheduled for a trial, non-scoring event to give everyone some experience at this new type of competition. For the German team this was to be their very first hot air balloon jump, as it has only just been made legal





to the West at 10000ft. The morning conditions were a slowly clearing ground mist but there was a time penalty for late take-off. Adopting the Austrian approach we watched a weather balloon ascend, but this disappeared vertically into the mist at 100ft and was no guide to the true wind direction or speed. Accordingly a launch site on higher ground south of the target was chosen and take-off just before the time gate was reached.

Unknown to us the wind was in fact flowing due East towards Hungary at all altitudes but at increasing speed high up! With the ground mist only clearing slowly on the lower ground around the launch site, it was difficult to determine exactly where we were but under the impression we were getting a southerly wind we rose to 10000ft to try and see the target and perhaps repeat the round 1 tacts. This ploy was not successful and

Inflation of the British and Austrian balloons Exit!

by the German authorities! The winds, with the exception of the second day, seemed to have no positive direction and this caused problems for some teams. However the Swiss and Hungarian balloons managed to actually fly over the pit followed very closely by **Graham Turnbull** in third place, about 30 metres away. The parachuting accuracy was extremely competitive, assuming the jumpers could make it to the pit. However, several national accuracy champions had the embarrassment of scoring zero, with a distance ranging from 2 to 4 miles from the disc! Even greater distances were scored by some of the balloons and these trends continued during the competitive events.

In the afternoon of Day 1 the first round took place with a take-off point of 3.5 to 7 miles from the pit. Unfortunately the light winds had changed since the lunchtime briefing and at ground level almost all of the balloons were actually blown directly away from the target! The only exception to this was the premier Austrian team with world champion balloon pilot **Josef Starkbaum** and the national accuracy champion **Gunter Schabus**. This team launched their own weather balloons and, seeing the wind direction, chose a more favourable launch site to the other nine balloons. The result was a first place of 1 cm for the jumper and 750m for the balloon pilot. Meanwhile the remaining nine teams were struggling to get closer than 4 miles to the target. Adopting a novel target, the British team rose to 10000ft and **Steve Millard** did a 'hop and pop'. Using a 9-cell Dragonfly canopy he just managed to reach the pit and score a creditable second place. No other jumpers scored and in fact some did not even jump out!

On the second day our luck changed in a most dramatic style. The wind was forecast to blow due North at ground level, 3000ft and 5000ft with a swing 15°



after a while we descended, lost, to 300ft in order to try and spot a road sign. This is a technique which you may find difficult to copy if lost in a jump-plane but is perfectly feasible in a balloon moving at 10mph. Unfortunately and to our surprise no road sign appeared but instead a huge double-barbed wire fence. We had arrived, not in the wrong field, but in the WRONG COUNTRY! At 300ft and without time to land, we flew over the border into Socialist Hungary. It was even too low to parachute back to safety. We were followed closely by the German team, who managed to land just short of the border.

At this point, the competition ended for the British team and our problems began. An army flare signalled us to land and we were surrounded by armed soldiers. With no passports or visas (how often do you take yours on a jump?) we were taken off for interrogation. This was not very successful. Between us we could speak English, Greek, Swedish and French. The interrogators spoke Russian, Hungarian and Serbo-croat! Eventually however things started to improve. An interpreter arrived and extensive diplomatic telephone calls between Budapest and Vienna were made. The Hungarian team competing helped considerably in establishing our identities and that we were not spies but just blown off course by the misleading weather reports. After seven hours our

balloon was loaded onto a 10 ton truck by Hungarian soldiers and we were formally handed back over the border into Austria. Under the circumstances, the Hungarians were extremely friendly and cooperative and we were lucky to return so quickly.

Finally, in the second event, only 3 teams, who had accepted time penalties had scored at all and we had been to Hungary and back. However, the third event, which we had also missed, was a high scoring one and not surprisingly we dropped from 2nd to 10th place in the parachuting event.

The third and last day of the competition saw two more rounds and, working hard to make up for lost time, a final position of 7th was achieved by the British team for parachuting accuracy. The first three places were:

Parachuting

1. Austria
2. Hungary
3. Switzerland

Ballooning

1. Hungary
2. Austria
3. Switzerland

Team

1. Austria
2. Hungary
3. Switzerland

As a first competition of its type, much



Steve Millard and Graham Turnbull at take-off.

was learned by all the competitors about what can be done (and what should not be done!) when jumping from balloons. A similar event will take place in Austria next year. We are also planning to organise a British event and are hoping to attract 15 to 25 balloons. Watch this space for further details.

S.G. MILLARD, D5167

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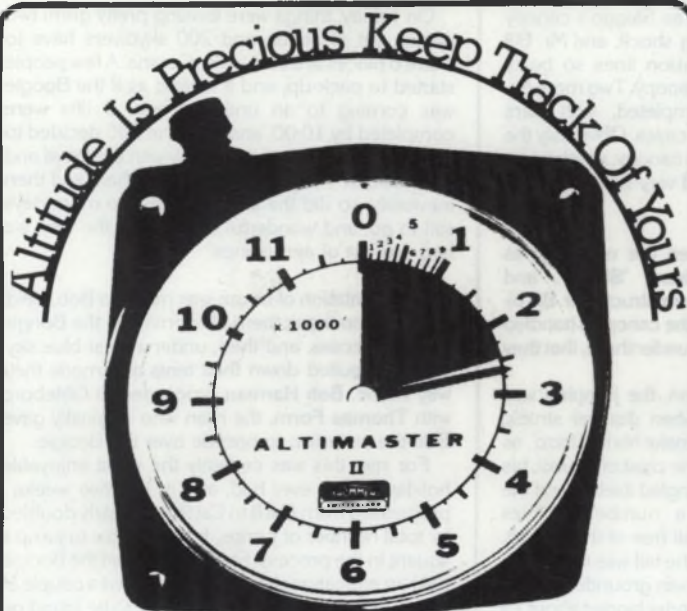
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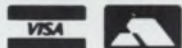
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ARVIKA SOMMAR BUGI '84 22 June - 6 July 1984

As I rolled into Arvika railway station at 1:18 in the morning on the 22nd June, I didn't really know what to expect of the next two weeks. This was going to be my first ever boogie, and I was going to be the only Brit amongst 200 or so Swedish skydivers.

Only two days earlier I had carried out my Cat 8 qualifying jump, closely watched by fellow Skybird, **Billy Connoly**, (who decided immediately afterwards to break his leg), and so I was due to make my first RW jump, on this, my first Boogie.

After kipping on the station, I woke at 6:00 or so, to find the clearest bluest sky I had ever seen. "If this keep up," I thought, "we are going to have one hell of a Boogie!". I hitched a lift to the airfield and timidly approached the first person I saw. Speaking as slowly and clearly as I could, I asked, "Is this the right place for the parachuting camp?", to which he replied, "Sure it is. You know you're the first Brit I've met since I cam over here? My name's **Bob Harman**."

Around 2 o'clock the planes started to arrive, first 'Kalle Gustav', the C206 Turbo, then 'Niklas Martin' the Islander and finally 'Rudolf Adam', the De Havilland DH104 Dove. I borrowed a rig from the Västerås Fallskärmsklubb - a club I often jump at when I come to Sweden - and got ready for my first RW jump. I had a bit of a surprise in store; my first experience of Relative Work was to be as base in a 5-way star, with **Bob Harman** and 3 friends from Västerås, **Göran**, **Claes** and **Pelle**. An excellent afternoon's jumping followed, with Bob making 7 jumps in about 3 hours, as he was the only instructor to have arrived on that day. Last jump of the day used all 3 planes, and consisted of 21

members of a club called E.E.T., whose symbol is a butterfly. The formation they build was also a butterfly, and it was complete by 5,000ft. Not bad, when you think that it was the first time that they had managed to complete the formation!

As soon as the last pair of feet touched the ground the midsummer party began, and many cases of beer were consumed. It was then that the first of the half a dozen kids living near the DZ emerged to plague us. Anyone holding a half empty beer can would be asked (in Swedish) "may I have your can when you have emptied it?", by each one in turn until one of them was lucky enough to claim his prize. This puzzled me for a while, until I learned that the DZ operators were giving 25 öre (about 2½p) for each empty can. A wise precaution as it turned out - over 4,000 cans were consumed during the two weeks of the boogie.

The Boogie (or Bugi, in Swedish), was presided over by four top class RW instructors; **Bob Harman**, Red Devils, England; **Jack Gregory**, Zephyr Hills, Florida; **Pål Bergen**, Norway; and **Heldi Mouche** from Switzerland and (sometimes) Z-Hills. They all arrived in the first few days, and then expert RW tuition was available to everyone for the rest of the Boogie; from 8-way sequential, to a simple base and pin.

The second two days were rained off - except for a couple of lunatic Swedes who did a hop and pop from 1200ft in the pouring rain; that was the first time I had ever watched a skydive from beneath the shelter of an umbrella! Also during the rain, **Bill Morassy** from Strong Enterprises popped in for the day to give a lecture and show some slides, and

had the weather been good, to demonstrate his tandem jumping rig (see SP Feb. issue). After his slide show, Bob, Jack and Heidi gave a lecture on basic RW for anyone who could fit into the tiny lecture room.

The next two and a half days were perfect sky-diving weather, and there was never more than one plane on the ground at a time. A 24-way sequential dive was attempted, but only 23 made it in, although it was insisted later that it was a 23-way with a cameraman (a likely story!). On the 27th a 3-way downplane was built by **Göran Widenby**, **Anders Nyqvist** and **Anders 'Simon' Simonsson**. They travelled from about 2000ft to 150ft in about 25 seconds, amazing everyone on the ground (not just the whuffos). Afterwards, one of them was heard to remark, "that was quite a rush", and nobody disbelieved him! On the 28th the last jump was a 16-way sequential dive in which 3 points were made.

Friday the 29th saw the first of the aircraft trouble, with the Dove developing a flat tyre. Luckily a replacement tyre was soon found, and it was back in the air the following day.

Saturday was a big day for 16 year old **Jimmy Petersson**, as he made his first freefall descent. Nothing too special about that, you might say, except that it was from 13,500ft! **Jack Gregory** and **Karl Ameberg** are both qualified AFF instructors, and together with Jimmy they left the Dove to make the first AFF jump (with a real student), in Sweden. Later that day, 18 daring (daft?) Swedish women made an 18-way skin-dive, but by some strange quirk of fate that all landed at the other end of the DZ, and **Bob Harman** cursed the fact that he

had not brought his binoculars with him.

The next day had the best start to the day of the whole Boogie, with the first canopies showing in the sky at 8:05, and the day continued with solid jumping until 11:00, when the fuel ran out. The following three hours of low winds and no clouds were taken up by more lectures from Bob and Heidi, but we were all very glad to see the arrival of the tanker at 2:00. We were not so pleased to see the simultaneous arrival of a rather dark patch of cloud, and even less pleased when it decided to park itself over the DZ for the rest of the day.

After a superb day's jumping on the Monday, Tuesday also started well, but finished on a disappointing note, as I and ten other skydivers on the way up to 14000ft had to make an emergency exit from the Dove. Its port engine packed in at about 2000ft, so there was barely time for a quick 11-way star from 2,500ft (no, I'm only kidding), before a nice line of square parachutes spread out student-fashion from behind the aircraft. Eleven out on one pass, and we all landed in the pit! (Well it seemed a shame to waste a jump). The experience was quite enlightening, I didn't know eleven people could all put on goggles, gloves and helmets, exit the aircraft and dump, all before you could say (in Swedish) "I think there's a little problem with the port engine, would you mind awfully...."

So far, there had been only one cutaway during the whole Boogie, but on Wednesday that happy

state of affairs came to an end, with four reserves seen in the sky by the end of the day. Two of them resulted from a Mr. Bill dive, as Sluggo's canopy was damaged by the opening shock, and Mr. Bill managed to get his suspension lines so badly twisted that he collapsed his canopy. Two more Mr. Bills were successfully completed, with **Lars Telstig** as Sluggo in all three cases. Obviously the strain proved too much for his canopy, which was a shame, as it generally opened very slowly - perfect for Mr. Bill dives.

More Mr. Bill fun was seen the next day, as **Anders Nygrain**, **Peter Adrian**, 'Simon', and **Anders Nyqvist** attempted to construct a Mr. Bill biplane. The problem was that the canopies handled so differently with two people under them, that they just couldn't get it together.

With the Dove out of action, the jumping was progressing a little slowly, when disaster struck; **Mike Wesslander** was due to make his RW Intro, as the base in a six man star. In the crust of the exit, his parachute came open and tangled itself round the Islander's tail. Fortunately a number of lines snapped, Mike was able to fall free of the aircraft, and nobody was hurt. Sadly the tail was torn in the incident, and so the Islander was grounded for the rest of the Boogie. Mr. Wesslander landed about 15 minutes later, in the next county (well almost), unhurt but a little cold. At altitude, the temperature

was down to minus 20°C, despite the sweltering heat on the ground.

On Friday, things were looking pretty grim; two planes out of action and 200 skydivers have to share 6 places at a time in the Cessna. A few people started to pack up, and it looked as if the Boogie was coming to an untimely end. 3 lifts were completed by 10:00, and then the 206 decided to come out on strike in sympathy with the Dove and the Islander. The turbo ground to a halt, and then inevitably, so did the Boogie. With two more days still to go, and wonderful weather on the way, we had run out of aeroplanes.

A presentation of booze was made to Bob, Heidi and Jack, to thank them all for making the Boogie such a success, and then, under a clear blue sky, everyone pulled down their tents and made their way home. **Bob Harman** proceeded to Göteborg with **Thomas Form**, the man who originally gave Bob the invitation to preside over the Boogie.

For me, this was certainly the most enjoyable holiday I have ever had, and in just two weeks I progressed from Cat 8 to Cat 9, and nearly doubled by total number of jumps, learning how to jump a square in the process. For Bob Harman the Boogie held an educational content; he learned a couple of words in Swedish. The words were to be found on the front of a coffee machine in the pilots clubhouse: "Utan socker" - "without sugar".

"Skydivers go down faster", claims the car sticker, as far as skydiving is concerned this is not always the case. With the current trend towards smaller tighter suits some of the lighter jumpers are having problems staying down or maintaining the higher speeds created by the average or heavyweight jumper wearing a small suit.



The small suit trend is of course a boon to the heavier jumpers who were always relegated to the base but nowadays most people fall at the same rate as him. So there has been somewhat of a reversal of roles, the light weight who used to be able to stay up with any size formation now finds himself struggling to even stay with a fast falling fourway.

One of the secrets of good relative work is to be able to fall in your own natural relaxed position relative to your team mates, with enough reserves of body position to go up, down, sideways etc. So if you are a lightweight or even an

average weight with long limbs who naturally falls slow and are having problems keeping down the answer could be a weightbelt.

Nobody wants to use a weight belt so make sure you are wearing a tight suit to

GAIN WEIGHT FAST

start with, even experiment with different suits and materials and above all be sufficiently practiced in your skydiving skills to be able to perform all manoeuvres and fall with the fastest, even if it is in an unworkable position, you then know that your next step is a weightbelt.

Lead shot is probably the best thing to fill your belt with, which can be constructed like a waistcoat or a divers belt, the amount required will vary from jumper to jumper (another case for experiment) somewhere between 3lb - 10lbs should be sufficient, anything over

this could become uncomfortable. Your centre of gravity may be affected and therefore your body position to keep you falling down the pipe, so check that you are not forward or backsliding. Mounting the lead on the front or back is also a personal preference, on the front the affect is one of being sucked down and on the back one of being pushed down.

Weightbelts undoubtedly have a stabilising effect rather like front mounted

reserves, but this is their one big disadvantage if you are into competition and looking to shave off fractions of seconds here and there to gain that extra point. The additional dead weight your carrying requires greater effort to start a turn, it then has its own momentum which requires stopping earlier. Therefore the overall effect is a slower turn. One of the reasons we wear lightweight gear is to cut down on dead weight and thus speed up and improve our

performance in freefall, so to go and slap 10lb of lead on your back is rather counter-productive.

So to conclude - it is all a matter of balance between jumpsuits, weightbelts and how serious you take your skydiving. It may be a question of having several suits and weightbelts that can be selected for the particular dive that you are on. I hope it all leads to a universal standardised fall rate.

JOHN PARKER

AFF Certification Course - Pampisford

ROB COLPUS



The first Certification Course for Accelerated Freefall Instructors and Jumpmasters to be held in this country, took place at Pampisford DZ in October this year.

Mitch Decoteau and **Roland Hilfiker**, both from the School of Human Flight based at Zephyrhills in Florida, were invited over to this country by **Ian Head** of London Skydiving.

The School of Human Flight were at the end of their European AFF Tour. Having just returned from Switzerland and Italy where they helped to set up AFF programmes, qualifying instructors and jumpmasters and training AFF students.

Impressive Response

London Skydiving had received an impressive response from many experienced British jumpers wishing to take part in the Pampisford course. However, in order that everyone had the chance to complete the entire programme, the course had to be limited to eight participants, who were: **Matt Mortlock**, **Ian Head**, **Lyn George**, **Tony Butler (JNC SO)**, **Rob Colpus**, **Geoff Sanders**, **Bob Hiatt** and **Ian Aiken**. The BPA paid Tony Butler's course fee to enable him to assess the programme and report to BPA and STC.

Qualifications for the course were a minimum of 1000 jumps with 8 hours free fall time, plus plenty of experience in launching linked exits.

State of the Art

The course was held over the period of one week, which was broken up into classroom work and practical skydiving tests from an Islander or Cessna from 10,000 feet.

Mitch Decoteau, a USPA, AFF Instructor/Examiner, with over 400 AFF jumps to his credit, displayed an impressive knowledge of the programme and a very professional approach to student progression. Mitch and Roland brought with them and wore, the State of the Art student rigs used by the School of Human Flight. These were Vector piggybacks, containing LR288, 9-cell ram airs. The rigs were fitted with FXC AOD's and Stevens cutaway systems on 3 ring risers. The main containers were opened by an excellent system of Teflon coated wire ripcords, mounted on the bellyband, which could be activated by the student, or either jumpmaster.

Skydiving Tests

The practical skydiving tests consisted of Mitch and Roland acting as would-be students, while the trainees took them through the various levels of the AFF programme.

The trainees were subjected to all the possible problems they are likely to come across with real students, only more pronounced and much more often. To qualify, each trainee has to

score a minimum of 12 points over a maximum of six skydives. A satisfactory dive scores 2 points. Satisfactory plus is worth 3 points. Excellent is 4 points. Satisfactory minus is 1 point and unsatisfactory is zero points.

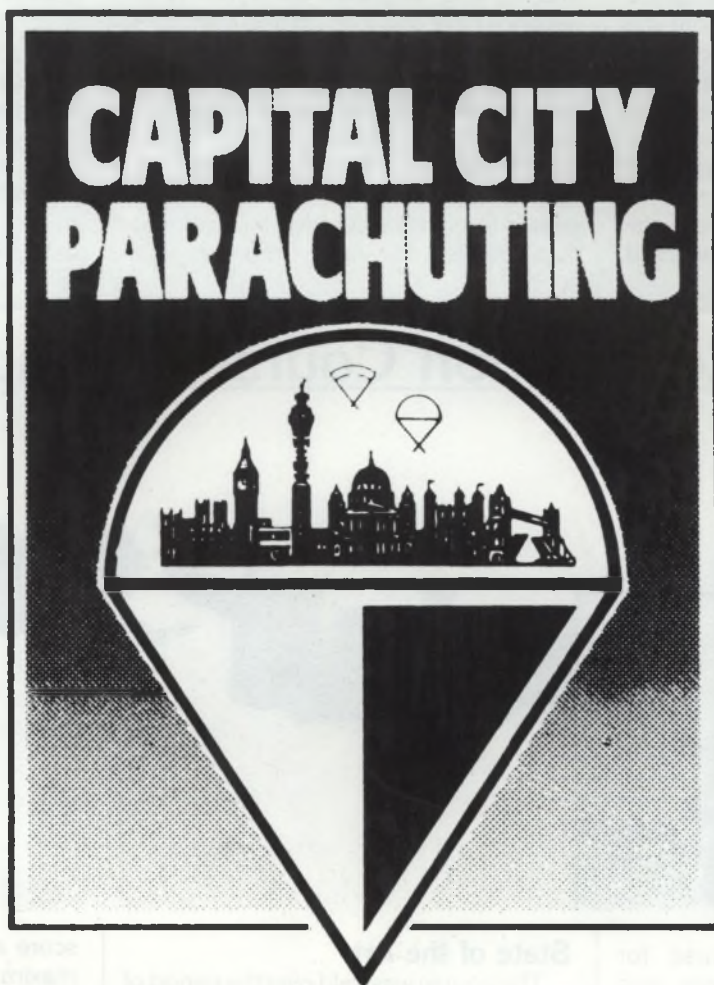
If 12 points are not accumulated in six jumps maximum, then the trainee fails to qualify as an AFF Instructor or Jumpmaster.

Passing this course is no easy feat, Mitch and Roland managed to tuck up, or become a sack of spuds on exits, or de-arch or backslide on release, or spin madly during turns. They refused to pull their ripcords, or look at their altimeters, they turned off their AOD's, or twisted their chest straps. They did their exit count without exiting, or exited without doing a count, etc. etc. The trainees need to have eyes in the back of their heads and eight sets of arms.

Challenge

Despite all of this, all the eight trainees on the Pampisford Course managed to pass and qualify as either AFF Jumpmasters or AFF Instructors (an AFF Instructor must also hold a USPA or BPA instructors rating). Some did it in four jumps while others needed six to accumulate the minimum of 12 points.

Everyone on the course, with all their experience, agreed that they had been pushed to their limits and definitely found the AFF Certification Course an excellent challenge.



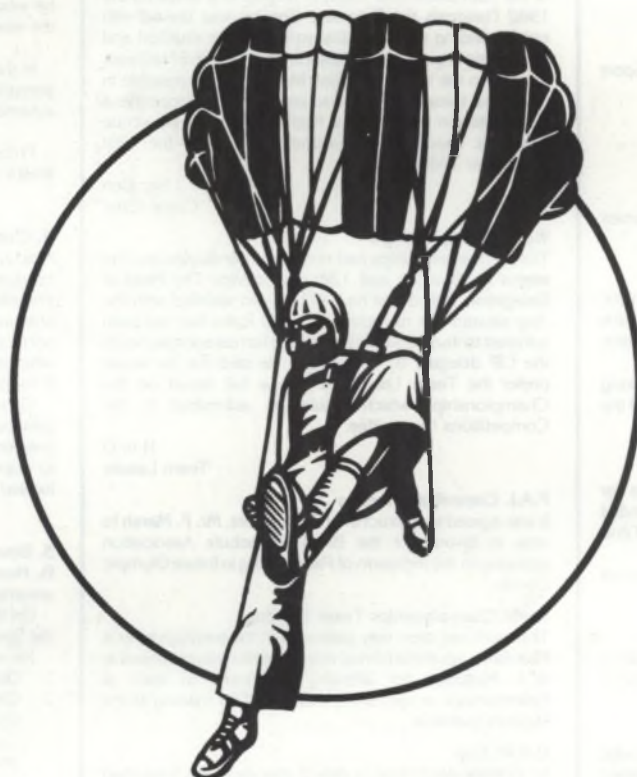
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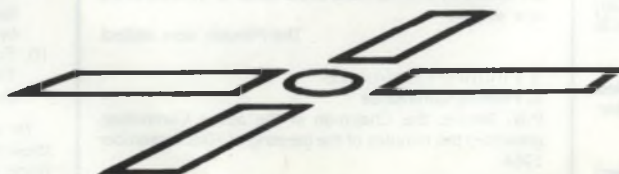


*We could wish you a Merry Christmas,
but we know that the D.Z's we do business
with will be having one anyway!*



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ps. If you don't do business with us yet,
perhaps we can arrange for you to have
a good Christmas next year?



**BRITISH PARACHUTE
ASSOCIATION
COUNCIL MEETING
20TH SEPTEMBER 1984
KIMBERLEY HOUSE, LEICESTER.**

Present:

J.T. Crocker	Chairman BPA
J.L. Thomas	Vice Chairman BPA
P.W. Ritchie	Chairman Finance Cttee
J.R.H. Sharples	Chairman STC
S.D. Lambe	Chairman Comp. Cttee
D. Hennessy	Chairman Dev. Cttee
Mrs J. Watts	Club Representative
J.K. Lines	
G. Lilly	
G. O'Hara	
D. Tylcoat	
J. Curtis	
B. Mason	
B. Dyas	

Co-Opted:

Brig. C.F. Jebens, OBE, APA, D. Waterman 'Sport Parachutist'

Observers:

Mr. C. Ure, Mrs J. Tylcoat, Mr. R. Ford.

Apologies:

Ms. S. Brearley, R. Colpus, R. Hiatt, L. Melville, A. James (Finance)

In Attendance:

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

The Chairman welcomed **Brigadier Kit Jebens** making his first appearance at Council as the new Chairman of the APA.

Item 48/84 - Minutes of Previous Meeting

Subject to the addition of **D. Hennessy** (apologies for absence) it was proposed by **S.D. Lambe** and seconded by **J.R.H. Sharples** that the Minutes of the meeting of 2nd August 1984 be accepted as a true record.

Unanimous

Matters Arising**a) P6 Returns**

Up to date returns and comparisons had been prepared and it was noted that there was a tremendous increase in the numbers from 1.1.84 to 20.9.84.

b) World Championships Appeal Fund

It was noted that over £2,000 had been pledged by clubs and individual members for the above, the Council wished to put on record its thanks to those who had pledged their support. A vote of thanks was proposed to **W.J. Meacock** for his efforts in conjunction with the appeal fund.

c) Shop

J.K. Lines was in touch with the person concerned in order to formalise the return of stock to the BPA.

d) Capital City Parachuting

Correspondence had been received from **Mr. C. Ure**, and distributed to all Council, unreservedly withdrawing all allegations and complaints against the BPA and Staff.

J.T. Crocker

P6 Membership Card

the Secretary General had finally managed to have the roughouts prepared by **Ms. S. Brearley** printed in basic form. The Council agreed that it was a very good idea and stated that the forms should now be sent off to all CCI's for their perusal and suggestions. The JNC SO's and Secretary General to check the form for accuracy of technical administration detail.

JNC SO

Sec Gen

CCIs

Item 49/84 - Committee Reports**1. Safety and Training Committee**

The Chairman of the above Committee, **J.R.H. Sharples**, presented the minutes of the meeting of 6th September, 1984, and asked for comments.

Item 4 - AFF

There was considerable discussion on the above subject and the decision by the STC to vote down a proposal to run a pilot scheme.

The final outcome of the discussions was that **B. Dyas** said that he would, in the near future prepare a longer and more comprehensive paper on the subject and after consultation with **J.R.H. Sharples** re-submit the scheme to the Safety and Training Committee.

It was felt that if there were again many people voting against the scheme they might be asked what their objections were, in order that **B. Dyas** could have some idea of what further input might be needed and to enable Council to consider the matter further.

Item 5.4 - Incident

In response to a question from **G. Lilly**, **J.R.H. Sharples** stated that it was up to individual CCIs as to any action they might take.

CCIs

The minutes were ratified

2. Competitions Committee

S.D. Lambe, Chairman of the above Committee, presented the minutes of the meeting of 23rd August 1984 (Minutes attached).

An approach had been made by Ipswich Council to host the 1986 National Championships at the Ipswich Showground, with sponsorship involved. **J.H. Hitchen** had been to look at the venue but thought it unsuitable. However the Airport was a suitable venue. It was agreed to look at this in more detail and to make a decision at the Council Meeting of the 13th December 1984. In respect of a venue for the 1986 Nationals the Secretary General was tasked with corresponding with all Clubs explaining the situation and requesting any one who wished to host the 1986 Nationals to write to the office with their bid as soon as possible in order that these could be discussed by the Competitions Committee in order that a final decision on the venue could be made at the Council Meeting of the 13th December 1984.

Sec Gen

Comp Cttee

World Championships

These Championships had now been concluded and the teams finished 5th and 12th respectively. The Head of Delegation stated that he was far from satisfied with the Jury situation. In his opinion the FAI Rules had not been adhered to and he would be making formal approaches to the CIP delegate on this shortly. He said that he would prefer the Team Leader to give a full report on the Championships which would be submitted to the Competitions Committee.

H of D

Team Leader

F.A.I. Committee Meeting

It was agreed to instruct the FAI Delegate, **Mr. F. Marsh** to vote in favour for the British Parachute Association agreeing to the inclusion of Parachuting in future Olympic Games.

World Championships Team Training

The team had been very pleased with the training camp at Peterborough and a formal vote of thanks was proposed to **W.J. Meacock** for allowing the team to train at Peterborough at very short notice and for making all the facilities available.

C.R.W. Cup

G. O'Hara stated that to date 3 rounds of the 8-way had been completed, but no meet declared in the other disciplines. In consultation with those taking part it had been agreed that in the event of no meet being made in the two 4-way disciplines then the available Grant Money would go to the RM Team. In the event of a meet being declared then the winners would be given the Grant Money so long as those teams actually travelled to the World Cup. In the event of the winners being unable to attend, the Grant Money would be given to the team attending the meet.

G. O'Hara

Video

It was agreed that in the event of the Association being unable to obtain video equipment on permanent loan situation (**D. Hennessy**) then the Association would be prepared to expend up to £6,000 on the video system. Proposed by **B. Mason** and seconded by **S.D. Lambe**.

Unanimous

John Laing was thanked for his work on this project. Following a suggestion by **J. Curtis** it was unanimously agreed that a deadline for obtaining the video system be set. Ideally by the AGM and at the latest for the start of the new season.

The Minutes were ratified.

3. Finance Committee**3. Finance Committee**

P.W. Ritchie, the Chairman of the above Committee, presented the minutes of the meeting of 10th September 1984.

Computerisation

It was unanimously agreed to spend up to £3,500 on the

data base and the loading of the system in time for Mid February 1985.

Finance

Printing

To date Prontoprint had agreed to reduce their charges by 7½% in response to a letter from **Mr. A. James**. It was agreed to use Prontoprint and monitor the costs over a six month period.

Finance

Coaches Salaries

In response to Item 2 (attached) Council unanimously agreed to the following increases in salaries for the two National Coaches.

An immediate increase to £9,800 (effective 1st September 1984) plus the % increase, when the Sports Council published the new scales, to take the gross salary to £10,000. The % increase only to be backdated to April 1st 1984.

Sec Gen

The Coaches thanked Council for the increase and for their continued efforts to bring them onto scale.

On behalf of the Junior Staff, the Secretary General thanked the Council for their salary increases.

Magazine

The editor, **D. Waterman**, stated that the advertising rates had not been increased since 8th August, 1982, and said he would be presenting a paper on magazine funding at the next Finance Meeting.

Editor

In the meantime the Secretary General was tasked with preparing an age analysis of outstanding magazine advertising debts for the next Finance Meeting.

Sec Gen

Proposed by **P.W. Ritchie** and seconded by **Mrs J. Watts** that the minutes be ratified.

Unanimous

4. Club Representative

Mrs J. Watts had only one point to raise. It had been brought to her attention that one Club was experiencing complaints that the conversion from P6 to Full Membership was only made on a yearly and half yearly basis. Thus some people could pay the full rate for just over 6 months whereas a few days later they could have a half year for the 6 month fee.

Council noted this with sympathy but reiterated its previous stand that the burden of administration in breaking the year down further was too heavy for the staff to cope with manually, but thought that this might be looked at again when the computer was on stream.

Council

5. Development

D. Hennessy, Chairman of the above Committee gave a resume of the Five year Development Plan to date:

On the 16th October a Meeting has been arranged with the Sports Council to submit the draft plan for discussion.

He envisaged the plan being broken down as under:

1. Development Officer (Details at next item)
2. Coaching:
 - Coaching Certificates in all disciplines, thence use the Coaches to run Seminars in these disciplines, up to and including squad training for World Championships.
3. Competitions:
 - To include the Competitions Calendar into the system thus obtaining Sports Council Grant, and thus lead up to the National Championships.
4. Computerisation:
 - Moving on from the base agreed to include Financial Planning and other functions as needed.
5. Rigging:
 - Courses to be run. Needs for the Future. Financial Aid from Sports Council.
6. Regionalisation:
 - Use the Sports Council regions upon which to build our own regionalisation. Regional help for Clubs. In time full or part time regional representatives.
7. Alternative Income Sources:
 - Sponsorship, National Team Fund, Lottery etc.
8. Marketing/PR:
 - Put the BPA over to the public at large as a corporate body. Look closely at how we market this Association. Could be carried out under development.
9. DZ Facilities:
 - Provide financial backing for DZs to improve their facilities, i.e. overnight accommodation etc. this would tie in with retention, coaching etc.
10. Freehold Property:
 - This is very important and could shape the future of the Association and Sport.

He said that there are of course other areas but to date these have not been quantified. Those given above are, of force, very brief here but will be expanded upon as time develops the plan. The plan is not set and there is both room and time for amendment and discussion.

Dunn, M. Warren, K. Miles, J. Warren, K. Craft, I. Topps, V. Dean, J. Wright, N. Deigham, T. Johnson, G. Roberts.

Item 1 - Minutes and Matters arising from STC 6th September 1984

1.4. A.F.F.

The Chairman informed the meeting that **Brian Dyas** felt that not enough information had been supplied to STC and he would be sending a letter and a copy of the AFF Manual to STC Members with the minutes of this meeting. Mr. Dyas would be holding a meeting for CCl's interested, prior to the next STC Meeting.

B. Dyas

(Meeting BPA Office Thursday 22nd November, 1984).

No other items from the previous minutes were discussed and it was proposed by **R. Ellis** and seconded by **B. Harman** that the minutes of the meeting of 6th September 1984, be accepted as a true record.

Carried Unanimously

Item 2 - Incident Reports - Resume

1) **Hang Up - Thruxton - B. Bias** informed the meeting of a Hang Up that occurred at Thruxton where a student on his second jump grabbed the static line as he exited having turned the in slipstream 360°. The student held on to the S/L with both hands above his head, he indicated that he was aware that he had a 'hang up'. The instructor cut him free and he tumbled for about 5 seconds before he deployed his reserve. The student landed in a field and was sent to hospital where it was learnt that he had damaged some muscles in his arm. A number of questions were asked and some discussion took place. No recommendations were made.

2) **Total Malfunction, Doncaster - A. Collingwood** informed the meeting of an incident which occurred at Doncaster where a jumper had a total malfunction. The parachutist landed safely on his reserve. The closure loop had two knots tied on it, the top knot had pulled through the grommets preventing the pack from opening. Some discussion took place concerning this. The meeting felt that knots on their own were not sufficient to keep the closure loop secure, but the loop should be stitched down or have a washer over the top to prevent it pulling through the grommet(s).

3) **Ipswich - T. Knight** informed the meeting of an incident at Ipswich where three parachutists had exited the aircraft separately at 5000ft. and the last parachutist to exit had collided in freefall with the second parachutist as the second parachutist was starting to deploy his canopy, both parachutists had suffered a broken leg, one of them badly broken. Mr. Knight felt that the blame for this incident was with the last parachutist as, the higher person should always give way to the person below. Mr. Knight stated that the only recommendation he could give was to emphasise that parachutists must be aware at all times.

Item 3 - Permissions

1) **R. Souter** requested on behalf of **B. Scouler** (RN & RMSPA) that **Mark Bradford** be permitted to attend the next PI Course at Hereford, being 3 months short of the required two years in the sport. **Sgt. Souter** gave some background to Mr. Bradford's experience and qualifications. Mr. Bradford was asked some questions by some STC members.

JNCSO

R. Souter proposed that this be permitted, and was seconded by **G. Evans**. For 16, Against 0, Abstention 1.

Carried

2) **B. Bias** proposed that **Vince Dean** be permitted to attend the next PI Course at Hereford, being 4 months short of the required two years in the sport. Mr. Bias gave some background into the reasons for this request. This was seconded by **G. Evans**. For 14, Against 0, Abstention 1.

JNCSO

Carried

3) **J. Horne** proposed that **Major Peter Barlow** be given a six month extension to his PI rating as he had been unable to attend an Examination Course owing to Military commitments. This was unanimously agreed by STC.

JNCSO

4) The Chairman informed the meeting of a letter from **Tony Smith** requesting that **George Norrie** be given an Approved Instructors rating as it had lapsed in April of this year. The meeting stated that if Mr. Norrie completed an Instructor renewal form and got it signed by two Examiners, he would be given his Approved Rating.

T. Smith

JNCSO

Item 4 - DZs

STC had been sent details of a proposed Drop Zone at Hinton in the Hedges Airfield, Northants. O.S. Sheet 152,

Grid Ref: 547/369. **M. Bolton** presented his proposals to the meeting requesting that the DZ be cleared as an unrestricted DZ with certain limitations as there were power cables within 1000 yards of the target. He informed the meeting that the JNCSO had inspected the DZ and agreed with his limitations, which are:

1) If the wind direction is towards either set of power cables (i.e. from the NW or SW) then no student parachuting would take place if the WDI travelled more than 600 yards.

2) The Canopy Control Lesson would include a practical session.

3) All parachutists would be fully briefed, indicating to them all power cable hazards on an airfield map.

4) An aerial photograph will be kept in the aircraft at all times.

5) Only one student to be despatched on a pass at any time.

This was proposed by **M. Bolton** and seconded by **D. Palmer**. For 16, Against 0, Abstention 1.

JNCSO

Carried

Item 5 - A.O.B.

1) **Ian Louttit** had distributed to the meeting proposals for an 'Augmented Category System (ACS)'. The Chairman informed the meeting that a copy would be sent with the minutes and would be on the Agenda for the next STC Meeting.

All CCl's

JNCSO

2) **R. Ellis** informed the meeting of a smoke generator that had been banned by the APA from use in the air, as small pieces of metal were likely to be thrown from it. He said it should only be used on the ground. The generator is a Paynes Wessex, Nato designation: Parachutists Smoke, Number 1, Mk. III. The problem seems to be with the firing mechanism, and Paynes Wessex were in the process of re-designing it.

3) **J. Hitchen** had been asked by the Riggers Committee to inform the STC of a reserve parachute container, similar to the Netheravon container, manufactured by **T. Knight** where the handle is part of the top flap and if the reserve tie downs undid, it is possible that the reserve could not be activated.

J. Hitchen stated that no incident had occurred and it was possible for this to happen with ordinary 'Top Pull' metal reserve handle. It was brought up so that Instructors were made aware of the possible problem. Anyone with reserve containers made by T. Knight should contact him.

All CCl's

The Chairman informed the meeting that if they had any new parachutists this year that they wished considered for the 'Mike Forge Trophy' they should write with details before Christmas.

All CCl's

Date of the next meeting is 29th November, 1984 at the Post House, Leicester, time 7.00 p.m.

BRITISH PARACHUTE ASSOCIATION COUNCIL MEETING THURSDAY 25TH OCTOBER 1984 KIMBERLEY HOUSE, LEICESTER.

Present:

J.T. Crocker	Chairman BPA
J.L. Thomas	Vice Chairman BPA
J.R.H. Sharples	Chairman STC
P.W. Ritchie	Chairman Fiance Committee
J. Curtis	Chairman Riggers Committee
J. Lines	
B. Mason	
B. Dyas	
R. Colpus	
Ms. S. Brearley	
R. Hiatt	

Co-opted:

D. Water, Editor 'Sport Parachutist'

Observers:

A. Knight, R. Cummings, D. Johnston, Mrs J. Dyas.

In Attendance:

A.K. Butler	JNCSO, BPA
J.H. Hitchen	JNCSO, BPA
C.W. Port	Sec Gen BPA

Apologies:

S.D. Lambe	Chairman Competitions Committee
D. Hennessy	Chairman Dev. Committee
Mrs J. Watts	Club Representative
G. Lily	
D. Tylcoat	

Item 53/84 - Minutes of Previous Meeting

It was proposed by **J.L. Thomas** and seconded by **J. Lines** that the minutes of the meeting of 20th September 1984 be accepted as a true record.

Matters Arising

1. The P6 Membership figures show an increase of 90% from 1.4.84 to 30.9.84 compared to the period 1.4.83 to 30.9.83.

2. D.Z. Recce

J. Curtis stated that he felt that there had been misleading information as to whom should carry out a DZ recce in that a NCSO or a nominated examiner should inspect the DZ. It was agreed that in fact the persons carrying out the recce were both nominated examiners. There were therefore two nominated examiners and not just one. **J. Curtis** said that he was unhappy that the plans passed by STC did not seem the same.

J.L. Thomas said that it was important that two other examiners should have carried out the DZ recce. This was due to a complaint which had been laid against the JNCSOs. The two examiners agreed with the JNCSOs that the first DZ was not satisfactory. Thus they had then gone on to see another DZ. The second DZ was accepted as being adequate and within the limits set out in the manual.

3. Buffet Lunch

The Secretary General would send out details on costs as soon as these were finally to hand from the hotel.

Item 54/84 - Committee Reports

1. STC. The Chairman presented the minutes of the meeting of 11th October and asked for questions. (Minutes distributed).

The minutes were ratified

2. Competition

In the absence of the Chairman, **R. Colpus** presented the minutes and asked for questions.

Item 4. The question of the A/C use will depend upon whether Weston still have the Cessna.

There was some further discussion but it was felt that this still needed some further discussion.

The question of administration staffing at the National Championships was brought up by **J. Curtis**. The Secretary General stated, when asked, that if necessary the staff would attend but it would leave the office behind in its work.

It was agreed that the question of staffing be investigated further, but that administrative help would be necessary.

No bids from Clubs to host the 1986 Nationals had been received following the letter sent to clubs by the Secretary General.

The minutes were ratified

3. Finance

The Chairman presented the minutes of the meeting of 15th October.

Computerisation

The Treasurer had had a reply from the U.S.P.A. and they used a computer bureau.

He had further had a meeting with an army representative, **Colonel Femough-Harris**, the upshot of which was a recommendation of the type of system the association might need.

Mr. Neville Howarth had submitted a recommendation which had only been received today.

These will be discussed at the next Finance Meeting for consideration at the following Council Meeting. In the meantime the Treasurer would instruct Messrs. Howarth and Allen to proceed with all haste.

Shop

Some discussion ensued on this subject in the light of a solicitors letter which had been received. A reply had been sent to the solicitors but to date no reply had been received.

It was agreed that in the December issue of the magazine there should be a notification that the BPA would be taking control of the BPA Shop Sales from a date to be agreed and from a venue to be decided.

John Lines
Sec Gen

6 Monthly Management Accounts

The six monthly management accounts had been drawn and considered by the Finance Committee. Certain areas had been the subject of questions, these had been answered and explanatory notes given by the Secretary General. The six monthly position appeared to be quite

healthy, however the Secretary General had, based on these figures, and using historical data, projected the year end situation (31st March 1985). These were not so healthy and gave rise to concern and would be a subject for discussion at the next Finance Meeting.

Olympex 85

The proposals made by **D. Hennessy** were agreed. However on the question of the extra activity floor space, it was agreed that if it was staffed properly, and possible by a selection of clubs, this would be a reasonable venture, but if there were any doubts on the staffing etc. it should not be taken up.

D. Hennessy

Insurance

It was agreed to ask **Mr. R. Washbourne** if he would be kind enough to write an article for the magazine on the ramifications of the complete range of insurance cover, i.e. Life, Accident and details on the 3rd Party Liability.

Sec Gen

Mileage Rates - Council Members

Following the Finance Committee recommendation, in furtherance of the comments made by **D. Hennessy** there was some discussion on the subject. It was finally agreed that the rates should remain as they are at 15p per mile. The minutes of the Finance Meeting were ratified subject to above.

4. Development

In the absence of **D. Hennessy**, the Chairman, **J.T. Crocker** outlined the up to date position on the Development Plan which had been presented, in draft form to the Sports Council for initial reactions and guidance.

In general the Sports Council were very impressed by the start which had been made, various additions, changes, expansions etc. would of course be necessary, and it was acknowledged that there remained an enormous amount of work to be carried out.

There was an outside chance that the plan might be ready for the first Committee Stage in January 1985, but it was more likely to be later than this as the plan had to be absolutely right.

The Sports Council were awaiting confirmation that a plan, once accepted, could be implemented during a financial year. There was no guarantee of this.

The question of funding for a Development Officer had been mooted, but the situation is that if the overall plan, including a Development Officer is agreed then funding for the D.O. would be forthcoming, but there is no chance of the D.O. being funded before that time.

A formal vote of thanks was proposed by all Council to **D. Hennessy** for his work to date.

5. Royal Aero Club

There had been a meeting, the minutes of which had not yet been distributed but **J.T. Crocker** stated that there had been very little of note, apart from the fact that BPA Members had taken 1st and 2nd prizes in the 'Pie in the Sky' photographic competition.

Item 55/84 - A.O.B.

1. Office Accommodation

Council had been appraised of the sale of 185 Charles Street. In the first instance it was agreed that the Secretary General should look at the building and report back to Council, then as previously agreed the Chairman and Treasurer (and any other member who so wished) should inspect the premises. If it was felt that the building might be suitable then initial negotiations could be started.

2. Sports Gala Ball

The Secretary General had circulated the information. It was agreed that the Editor would ensure that the information be placed in the magazine in order that members would have the chance of attending if they wished. The above to be an agenda item at the next Council Meeting.

3. Office Opening/Closing Dates

It was agreed that the BPA office would be closed during the following periods Xmas Week 24th - 28th December inclusive and 1st January, 1985.

4. Parachutes

J.L. Thomas made the following statement in respect of parachute equipment from the Oman.

He had made an initial bid for the equipment before the Association had even been informed it was for sale.

He had informed the Association that their initial bid of £25,000 was not enough. The Association had then re-bid to £31,500.

An unknown Telex bid of £39,000 had been made direct to the Omani Government who had accepted this bid.

He had then been asked if he wanted to increase his own bid in the light that the acceptance of the £39,000 bid had re-opened the bidding. He had at that time made an increased offer which had been accepted.

P.W. Ritchie stated that the Association had increased its bid to £31,500 and had only been prepared to outlay that as a top sum. Thus any increased bids would not have been met by a bid from the Association.

It was unanimously agreed that **J.L. Thomas** had not compromised his position as a Council Member or as Vice Chairman of the Association, as he had in fact informed the Chairman and Treasurer of the situation earlier. It was however felt that it would have been better if he had declared his interest at an earlier stage.

5. Equipment Safety Notice

Council ratified the decision taken earlier this day regarding the above.

6. D. Walker

A note of thanks had been received from **Miss Debbie Walker** for the flowers sent to her by Council.

The date of next meeting is 13th December 1984 at Kimberley House, Leicester at 6.30 p.m.

BRITISH PARACHUTE ASSOCIATION LTD. EXTRAORDINARY GENERAL MEETING THURSDAY 25TH OCTOBER 1984 KIMBERLEY HOUSE, LEICESTER. 6.30 p.m.

Present:

J.T. Crocker

Chairman BPA

P.W. Ritchie

Treasurer BPA

In Attendance:

C.W. Port

Sec Gen BPA

In the Presence of 16 members of the BPA including:
J.L. Thomas Vice Chairman BPA

J.R.H. Sharples

Chairman STC
Chairman Riggers

J. Curtis

J. Lines

B. Mason

B. Dyas

R. Colpus

Ms. S. Brearley

R. Hiatt

Apologies for Absence:

S.D. Lambe

Chairman Comp. Cttee

D. Hennessy

Chairman Dev. Cttee

Mrs J. Watts

Club Representative

G. Lilly

D. Tylcoat

MINUTES

Item 1

The Chairman **J.T. Crocker** drew the members attention to the reason for the meeting, in that the Association had to conform to the legal requirements of the Companies Act which requires that the Association Accounts be adopted within six months of the financial year end.

The Accounts had been distributed to the membership via the Associations Journal 'The Sport Parachutist'.

There being no questions from the floor it was proposed by **R. Hiatt** and seconded by **J.R.H. Sharples** that the Annual Accounts and Report of the Auditors for the Financial Year ended 31st March 1984 be received, adopted and approved.

Carried Unanimously

Item 2

It was proposed by **J. Lines** and seconded by **P.W. Ritchie** that the Auditors, Edward Moore and Son be re-appointed for the ensuing financial year and that their remuneration be fixed by the incoming Council for 1985/86.

Carried Unanimously

There being no further business the Meeting closed at 18.45 hours.

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contact: Kath McCormac, 041-647 6410

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