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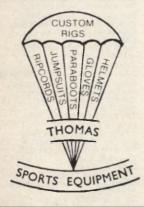
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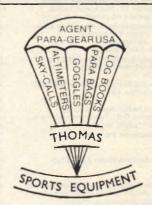
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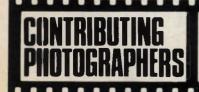
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The views of contributors to "Sport Parachutist" are not necessarily those of the Editor, or of the British Parachute Association, and no liability is accepted for same.



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Vol. 14 No. 2

EDITORIAL

The Sport Parachute Centre is under new management, and the new owner, John Edmundson, though not himself a parachutist, is keen that sport parachuting should flourish at Bridlington. We wish him every success.

It is with great pleasure I introduce you to Roger Hull whose first contribution appears in these pages. Well known to all who have visited Pope Valley, Roger is an excellent parachutist and writer. I have a number of his articles in the pipeline.

Congratulations to all involved in the formation of the British Collegiate Parachuting Association. I'm sure this new Association will benefit all students who participate in our sport.

The next issue of S.P. will be a special Jubilee Edition. Special contributions will be most welcome—by the end of April please.

Blue skies and soft landings,

Charlie

Cover - Canopy RW by Andrew Pratt

WANT DUTOP WANT

Calendar of Events

30 April-1 May '77 7/8 May '77 10-18 May '77

21-29 May '77 4-6 June '77 6-10 June '77

18-19 June '77

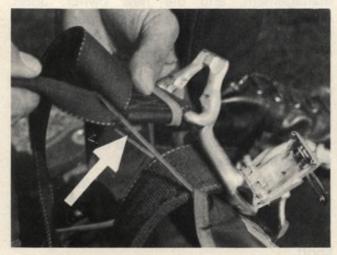
2-10 July '77 8-12 August '77 All Girl Accuracy Meet, Sunderland 3rd Annual Accuracy Meet, Shobdon Army Championships (Open) Netheravon

British RW Nationals, Leicester Cark Accuracy Meet, Cark BPA Instructors Course/Exam 2/77 Netheravon

Shobdon Round Meet, Shobdon 'Sunday Times' Accuracy Meet, Sibson

B.C.P.A. Meeting, Sibson British Classic Nationals BPA Instructors Course/Exam 3/77, Leeds,

BPA Instructors Course 1/77 at Shobdon.



This issue's Rigging Horror. This incorrect tie could have caused big problems at cutaway time.

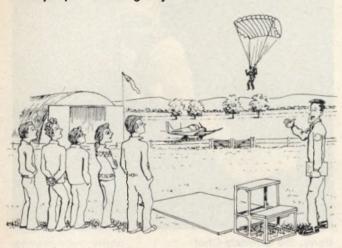


A sheepish Dave Hickling seen with recently acquired wife, Angela, who's training to be a jump pilot.





Don Sidebottom and Louise Drury after making their 100th jumps on Boxing Day.



"The Chief's Square-shaped 'chute shows how a good 'chute should be!"



"The next time you field-pack, try not to pack so much field!"



Brian Jackel exits "Charlie Yankee" during the '76 Classic Nationals.

photo—Derek Evans

". A JUMPER HAS TO EXPECT GRASS STREAKS FROM CRASH AND BURN LANDINGS ...

... PAINT MARKS FROM TIGHT DOORS IN SUPERSWIFT TEAM EXITS ...

... WEAR AND TEAR FROM RACING THROUGH SPACE AT 120+!!...



JUMPLESTILTSKIN A modern fairy story for parachutists

There is this tale that's often told To parachutists, young and old. A fairy story that's just not true, As told to me, I'll tell to you.

There's this 'ere farmer, it is revealed, With pots of gold and a big flat field. He's got a plane, a 182, With lots of time and nowt to do. You can jump the plane to your hearts content, The field is free, he wants no rent. He has a barn where you can pack, The milkmaid's a nymphomaniac.

But now at last, this tale's come true, As told to me I'll tell to you.

Good Farmer Marsden, a real life fairy, Though strong of arm and somewhat hairy. His magic wand he now has waved The B.K's future he now has saved. He's bought a plane, a 185, Which Captain Sudbury hopes to drive. Now each weekend, from morn 'til night The B.K's hope to get it right.

All fables have a happy ending, Just one small point, the matters pending. The milkmaid alas, has got the sack, But I understand that she'll be back. No more to milk and sweep and scrub, She wants to jump and join the club. Her name you've guessed, you clever fella, It's your friend, my friend, Cinderella.

COOKEY.

TWO DZ TIME WASTERS

Problem 1.

Three friends, Jim, Jack and Joe make up a regular 3-man at their weekend club. After much practice they now always jump in the same order, and don't change kit.

Their positions are 'Base', 'Pin' and 'No. 3', and their kit consists of a brand new SST, a B12 containing a Mk 1 P.C., and a custom built piggyback with a 'Sliderised' Paraplane Cloud.

From the following clues can you determine who is Base, Pin and No. 3, and who wears which Rig?

- The Base doesn't like pigs
- 2. No. 3 has just fitted a slider to his Strat.
- 3. Joe owes No. 3 £6 for the last 2 jumps.
- Jim sold his B12 to his team-mate when his new gear arrived.
- 5. Joe and the pin were on the same P.I. course.
- Jack just asked if he could go Pin for a change, but Joe said 'No'.

Problem 2.

Four jumpers, Bill, Ben, Bob and Brian, have formed an accuracy team for this years' Nationals. Each has a Mk I P.C., and they have worked out their stack so that they invariably leave the aircraft, and land, in the same order. To be distinctive each man has a different coloured jumpsuit, Red, Yellow, Green and Blue. From the following clues, determine who wears what colour, and the exit order, remembering that 4 is at the *top* of the stack!

- 1. The Green man always exits last.
- Bob and the Blue man both zapped the pit last jump!
- At the last competition Brian saw Bob and the Red man score D.C's.
- Brian sold his old Blue jumpsuit when he joined the team.
- 5. Brian prefers to follow Bill into the pit.
- 6. Bob always lands after Bill and the Yellow Man.
- The man in the Blue suit always gets down before Ben.
- 8. No. 2 and Bob don't like Red jumpsuits.



Barry, the Grindale Chef

photo - Jim Barnes



"After a spot like that, Bruce, I can see why you got the sack from that crop-spraying job!"



Dear Charlie,

I'm pleased to report that the new DZ at Flixton is now operating and was 'christened' last weekend.

The airfield is at Flixton village which is two miles southwest of Bungay, Suffolk. It is an old bomber field and completely obstruction-free, all and sundry are very welcome to come along and jump with us.

The club has a caravan on site and plans are in hand to add a decent sized pit and other extravagances. At the moment the aircraft is ferried in which is a bit of a sweat but we hope to get something on site fairly soon.

So, if you live nearby or are a 'sausage machine' student who has yet to try the romance (?) of grassroots club parachuting, come along. Phone our Secretary Linda Bennett Friday night to be on the safe side (Woodbridge 5881) and she will also issue an amazing set of directions for finding us. Last but not least, the 'Flixton Buck' serves both Norwich Bitter and Adnams.

Cheers,

MIKE PURVES.

Dear Charlie.

We finally made it. Wales and West Para Club had its first weekend on the 12/13 February. 17 students trained and set up to start January we had crap weather, but when Nellie made the sacrifice of keeping off the booze for a week we had the breaks and Friday 11th looked promising so all was arranged to meet at the D.Z. at Badminton.

Having had so much rain we should have taken a canoe, but luckily the airstrip being higher it wasn't too bad on examination and with blue skies and an 8 mph wind A1 O.K.

A plane arrived and appeared to be searching for the strip. We let off a smoke for guidance and discovered it



was only a Chipmunk on exercise. Shortly after the 172 arrived and managed to take down part of the cattle wire protecting the strip. However, no damage was done to the plane. Our numbers had now grown to 33 and off we started an enjoyable weekend. A whisper had got around and we had received our first visitors. We couldn't let the first weekend pass without introducing REL Chris Claridge as base Bill Robbins pin and myself 3rd. At 6,500 Chris climbed out and as Bill was getting out Chris's rig popped and he now holds the record for the longest ride down over the West. Bill and I made the first hook up and finished an excellent start to a new Clubs first weekend.

Special thanks to His Grace the Duke of Beaufort for allowing us there. Mr. John Davis, the Farm Manager, for his encouragement, patience and co-operation. Marion Pebworth for finding Badminton and writing the first letter of enquiry. To all the other lads who just mucked in without being asked.

Like all D.Z's Badminton has its restrictions. We will not be operating every weekend and cannot accommodate too many visitors. We are purely a progressive student D.Z.

Keep it smooth and easy,

LES MELHUISH.

Dear Charlie,

Further to our telephone conversation regarding the All Girl Accuracy Meet we were planning to hold at Easter, we have taken your advice and decided to hold it on weekend 30th April,/1st May, 1977.

As this is our first attempt at organising a competition we are rather apprehensive as to the kind of response we will receive, your support in giving this a big splash in the magazine would be much appreciated.

Our sponsors Bass Charrington have been very generous and we feel an acknowledgement of sponsorship in the magazine would not go amiss. We are also naming the meet after them and intend to make it an annual event.

P. RICE,

Northumbria Parachute Club.

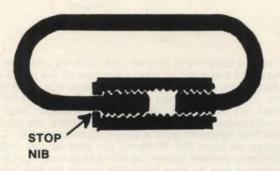
Dear Charlie,

Following our recent chat about one or two points on equipment, I have made a few comments below which you may wish to publish:

Strato-Star Connector Link

I have always slightly distrusted the strength of the new "Slimline" link joining lines to riser on the Strato-Star. This distrust is, I suppose, only natural apprehension

towards something which is lighter and smaller but obviously strong enough as my last 200 jumps have proved. However, when I "sliderised", I removed the same type of link used to connect the reefing line to the pilot chute and snakeskin and it was then that I noticed that when the nut is fully tightened with only "finger and thumb" pressure towards the short end thread there was an almost imperceptible gap between the trailing edge of the nut and the long edge thread as the piece of paper between the two in the photograph clearly shows. Had this particular link been used to connect the lines to the riser it would undoubtedly have failed with the opening shock.



The nut had in fact only stopped tightening up further on the shorter end threads due to it having met the curved contour of the link just past those threads. It would seem that there is a "stop nib" (see enclosed sketch) which, small though it is, is intended to stop the nut from passing too far and it is only this which causes the resistance to indicate that the nut is sufficiently tightened. Because of the relative frailty of this "nib" the nut can quite easily be over-tightened with potentially disastrous results — CHECK YOURS NOW.

Security "Low Speed Opening" Reserve trays

The standard sports reserve tray marked "low speed opening parachute" manufactured by Security has a documentation pocket sewn on its upper front surface, the open access edge of which could easily be encompassed by the fingers whilst grasping a top pull handle with the result that the pins will not leave the cones unless (as is unlikely) you were to realise this and change your grip or tear the pocket away from the tray in time (equally as unlikely). This "potential nasty" may of course be common to other reserve trays, particularly those which have been more recently converted to "top pull" since the new ruling on student reserves.

Either have the pocket turned round so that the opening edge faces the other way, better still, sew up altogether, best of all — and easiest, carefully cut the pocket off—DON'T DELAY—CHECK TODAY.

Sincerely,

P. E. FISHER, D.1566.

ZEPHYR HILLS '76

Dear Charlie . . .

Sorry to have missed you again this year. Understood from Dick, who passed along your request for a note on the meet, that you were unavoidably tied up. Pity you missed one helluva show. It seemed as though just everyone came this year. Less, of course, you and the old Endrust lads of a few years ago.

The pace really began picking up almost two weeks before the meet actually started, with all sorts of people trickling in from all over the world. The largest contingents were the Scandinavians, Germans and Austrians, though there were a fair number from Down Under. This year we saw the inclusion of the 8-man sequential event for the first time at Z'hills, and based on that and the size of last year's meet we extended our time frame to nine days: November 20 through to 28.

The first day of the meet arrived just behind a rather unpleasant cold front that kept us glued soggily to the ground. The jumpers did a fine job of keeping themselves amused, though it was a strain on all concerned. The second day started off much the same as the first, yet by mid-afternoon it started breaking up nicely and we were able to get underway with the first event, which was 8-man sequential.

Monday dawned rather frigidly and had everyone trundling around in their warmest clothes. But the sky was absolutely clear and the aircraft, DC3 and Lodestars, began rolling down the runways. With only twenty four 8-man teams registered, it took only a matter of hours before the first two rounds had been completed — and this in conjunction with fun and practice jumps being made by those waiting for the upcoming events. It was decided to finish the sequential event with only two of the three rounds completed — due to the day-and-a-half late start — and move directly to the 16-man formation event. Then, if the meet got back on schedule we could go back and pick up on the last round.

Tuesday morning came up like thunder out of Disney World across the way and by 8.30 the first 16 man teams were stepping out at twelve-five and going for eight point snowflakes. By noon the chill had gone from the air and with everyone warmed everything began to fit and move together like a well oiled machine. It was amazing to watch. That evening, with the whole drop zone a bit sunburned and not a little exhausted, the day's jumps were tallied up. The day before hadn't been bad with 1400+. Tuesday's total came to an even 2100.

Wednesday saw the completion of the 16-man formation and 8-man sequential events. It also saw the beginning of an incredible sweep by one team of the entire meet. With the end of the third round of 16-man it was Slots For Tots in first place. They had completed the snowflake, diamond and quadropod formations in a total time of 90.8 seconds. Trailing them was Exitus, renamed Whips and Chains for the event, with all three jumps completed in 112.3 seconds.

In the sequential it was Slots again in first with an eleven point total. Second went to More Chaos, while there was a tie for third between D. B. Cooper's All Stars (a Jerry Bird/B. J. Worth team) and Eight + Eight with nine points each.

Wasting no time on congratulations, we dove right into the 20-man. And by that evening when the last team had stepped into the air, we were well into the second round... with a new record of 2146 made over Z'hills in one day. It was almost decided to end the 20-man with just two rounds, inasmuch as ten-man was to start the following day. Things were going so smoothly, however, it was decided to finish off the last round first thing in the morning.

And bright and early the next morning we got cranking. And with the completion of the third round it was, sure enough. Slots in first again, this time with the Seagull Squad from Logan, Utah, with three back-to-back twenty mans in a total time of 119.2 seconds. Trailing closely behind was Exitus with three of the same completed in 122.9 seconds.

Then it was right into the ten-man event. The favorites, naturally were Exitus and Slots, with the Seagulls and Ten High as runners up. The Seagulls were mostly ex-Jerry

Bird team members with hundreds of jumps together, though they had no current practice. Ten High, as almost every year, was comprised of mostly younger jumpers with limited experience. Still, in the few weeks prior to the meet they had been fairly consistent in the 14 to 16 second bracket with an occasional 12 and 13 second star. Their performance would depend on how well they held up under the pressure of their first big meet together.

All fun jumps were officially suspended as we attempted to get 102 ten-man teams five jumps each in the next three-and-a-half days. As long as the weather held out we knew it would be a piece of cake.

As it was, the weather would not be entirely cooperative.

With the end of the first round a pattern had been set that would pretty much last through the rest of the meet. Ten High was the first of the favored teams to exit, after bungling their exit rather badly, were scored at 19.9. The Sod Farm, another Z'hills team, had their star in 18.8. Exitus, drawing a Lodestar for its first jump, managed a respectable 15.1, while Slots simply blew everyone away with a 12.1 second ten-man. This was Slots' meet and they were cutting no slack.

Friday morning refused to dawn. Instead, we were greeted with heavy ground fog that stayed with us until noon. Even then it refused to burn off and instead lifted up into clouds that made accurate judging impossible. We then shifted over to the Z'hills contingency Plan B. This allowed those teams not in contention to jump if they so desired. If, however, the judges failed to see them because of the cloud conditions there would be no rejump allowed. This was greeted enthusiastically by those teams that simply wanted to get in the air and before long the satisfying roar of radial engines rolled over the drop zone.

By mid-afternoon the clouds had finally cleared completely. Exitus, back on familiar grounds with a DC3, turned a blistering 11.4 second star. Ten High managed an 18.0 and the Sod Farm had their's at 19.3. The Seagulls picked up some time with a 15.1, while Slots maintained their position with a 12.4.

We woke Saturday morning to face another dose of fog lying on the drop zone. We waited and waited until Plan B could be put into effect. When the weather finally began clearing we were starting to get a bit nervous. We were running out of time with three rounds yet to complete. Ten High finally was sent up and dropped back with a 19.0. The Sod Farm picked up some time with an 18.4, while the Seagulls were timed at 14.6. Exitus had some serious problems on their exit and when it was all over they were cursing their bad luck along with a very disappointing 17.4 star. Slots, demonstrating incredible consistency, smoked through their third jump in 12.8.

By late Saturday the push was on to get the teams in the air as fast as possible. More fog was forecast for the next morning and we knew it was going to take an incredible effort on everyone's part to finish the meet. At that point we were running eight aircraft in the air at the same time. Teams were standing by in their respective loading areas fifteen minutes before their aircraft was there. Engines were shut down only for fueling, and with high speed fuel pumps even that took only three to four minutes. As soon as the aircraft wheeled into its loading area the teams would be hustled aboard and down the runway they'd roll. Teams scheduled for that particular aircraft's next load would then be given a premliminary notification. The pace was amazing to watch. It wasn't unusual to have one team landing as another was opening while yet a third was just leaving its twin engined transport at ten-five. What looked like mass confusion was in fact mass confusion held in check by superb organization.

Sure enough, Sunday morning fog lay over us like a wet blanket. It was dismal. As soon as there was the barest chance of catching some sky the aircraft started rolling. This was it! the last day of the meet, and we'd damn well do our best to finish it.

The pattern of the prior two days repeated itself and it wasn't until mid-afternoon that the competitive teams were sent up. The only chance Exitus had now of moving into first place was Slots blowing one of their jumps. As it was, they had no chance at all. Slots opted to take their fourth round jump from five-five and by the time they landed the judges had posted their time at 11.8 seconds. Exitus followed suit, driving their own line-up out the door at five-five and matched Slots For Tots tit for tat with an 11.8 second star of their own. The Seagulls cruised together at 16.6, Ten High managed a little better at 16.6, while the Sod Farm stayed consistent with an 18.5.

As the sun edged steadily toward the Gulf of Mexico the last part of the fifth round was launched into the sky. But before the many engines could move the teams to altitude old man Sol tucked his chin under the far side of the world and we ran out of light. The DC3s and Lodestars stopped climbing and brought their charges back to earth. With only thirty teams left to complete the last round we had simply run out of time. It was over.

Slots For Tots, in an amazing display of skydiving skills, took the gold in every one of the four events. Exitus grabbed second in three of the four and were awarded the Tony Patterson Fastest Star Trophy for their 11.4 second ten-man. Members of the Seagulls shared first place honors with Slots in the 20-man, took third place in tenman, tied for third in 8-man and won the Meet Directors Trophy for the best sequential formations following their ten-mans.

And so another skydiving phenomenon has come to pass. And one that will be the basis for a thousand and more jump stories to be told for months to come. In a period of nine days over 1300 jumpers shared the skies over Zephyrhills, Florida, made a total of 12,126 jumps and between them logged over 212 hours of freefall time. the ten DC3s and Lodestars that flew in the meet logged over 300 hours of flight time and drank in excess of 34,000 gallons of avgas.

There has never been anything like it anywhere else in the world. And there probably never will be anything like anywhere else in the world.

Until next year.

Drop on over and check it out.

Next year, Charlie? Hope so...

HOOP.

It is with much regret that we announce the tragic death of Jim Turner whilst diving in Scotland on Friday, 14th January 1977. Jim was a keen parachutist, a B.P.A. Instructor and a regular member of the Royal Marines team. His passing is a sad loss to both the Royal Marines and to sport parachutists everywhere. Jim leaves his wife Sue and young son Andrew Jim to whom we send our condolences.

Today Entebbe Tomorrow de Worl!

Why ello dere fellow skydrivers. As de worl famos international political pussonality A am, A s'pose readers of de bee pee ay journal is a bit s'prised to see ma matcherless prose appearing between its cova's. Hmmm well look out Red Debils make way Muck End, Big Idi and is Wings 'o' Entebbe is bout to explode on de parashootin worl in a big way.

Being dat Uganda at de nub o de Universe it naturl for word to pass along the innerternational tom toms bout dis divin outa airyplanes is gettin to be a big deal. So seein as A is worl respecuted rider ov de slipstream (ow many o you got de Israeli wings) I decided it bout time we become a worl power at dis space aged sport.

As it being de Relateef Worl Meat year ma fust priority was de conscription ov de eight and four man sequintial temms. Ma chief instrucutor Col Ngaba did me proud on dis point; it amazin ow much good material comes out de bushes on de end of de trusty ex Brit Army bayonets. . . But fust things fust; as Chairman, Nashnol coach, Safetee Officer and dee licence holda no 1 o de nooly formed Uganda Parashootin Club, it was ma fust oberjectiv dat de quipment me boys would be jumpin would be ov de top notch quality an on par wiv de res o de worl. After readin wot all de skydivin hacks like dis Bob Codpiece pusson an Bee Jay Worf gotta say. I come to conclusion dat dee kit for us is 'Hogs' so A looks up de cost dese 'Hogs' an A finds dat dey askin de worl for em. So a sez Bugga Dat', we got thousands ov 'Hogs' in de Nashnol Park? We got de wart hog, de swamp hogs, an ave de added advantage o comin in different sizes! Bit sadly we find dat after strapping a few o dese onto our Asian brudders backs an kicking them out de Presidenchal Twin Otta at 12 gees, dat dis not-de same type o hog. Still, someone gotta get de elbow in de qwest fo tecknoligy, an it saves using de shells f'om de fummos Webberly 45.

Anyway dat all water over de bridge now, as well known brit skydiver Dave Wartaman sent out 12 sets o de latest bogeying kit from de States. De canopee is call'd de Strato Thunder Cloud; it being a precision round shaped shoot, custom coloured orange an white wiv dis recutangular 'ole' in de back givin speeds o up to thirty em pee aitch; dat is o course if de wind blowin in right direction. Dis packs into dis aerodynamically shaped 'pac' called a Bee Foor. It good job A got dis lot, cos Dave tell me that this kit is de skydriving 'ot potato' o de year and ad dis one arm pusson 'Col Ook' breevin down is neck fo de franchize. But Idi is no fool, a snaps dis up fo a kool 10,000 an sole worl distribution rights. Innerternational statesman, Uganda boxing Champun, top notch parashootist, an now hard bargaining buyer an salesman, is dere no end to dis mans skills?

'So' A ears you say. 'All dis icing on de jam tart, wot about de lobs, where's de innersight into de tactics an mefod o de Uganda sesquintial team 'Wings 'o' Entebbe'.' Well A tell you Brits; while you bin experimentin wiv de two an three man linked exits we already got de eight cracked! As de eight shimmerin bodys burp out de door 'Shazum' — two points, an straight away Wings 'o' Entebbe ten seconds up on de res o de worl. 'Ow it done Idi? 'A hears you clamour 'Lay it on us' comes de cry. It dam easy, any pusson wiv an ounce of de grey matter gonna realize dat if you ancuff em to gevver dey not gonna go skitterin down de slipstream like flys off de presidential whisk.

Pretty soon photo's o de 'Wings 'o' Entebbe' gonna be gracing de cova's o magazines an larga posters worlwide.

'Oo is dis noo rising star of de pickture scene puttin dis Mandy de Luker t'shame? Snoopin out de sun wiv de lion skin Brand Ex an de Kodak Brownie sellotaped on de be bonce.... Why its de Idiflicker!

An dis only de begginin, already de classick team bein trained fo Yugoslavia nex year, an showing great potential in puttin de big black plates on de dee cee. Praps de half starved black mambas an corbras on de edge o de pit got summit to do wiv it?

Avin heard bout arguments in de akracy comps, win pussons like dis John Morecock an de bluenob Len Mapplebonce lettin off at de mouf abut piddley lil centilitres. A decided dat aint conna appen ere. Any pusson lookin like he gonna start bangin de gums gonna have to argue wiv four asegai froo de feet confirmin de judges unbiased score.

Well you Brits, dats it. A is windin up fo now, as de magic fingers gotta start workin on affairs o state, an of course workin on de second manoova involving highly delicut skills like undoin de ancuffs.

See you at de Worl Meet,

IDI AMIN, V.C. Uganda D.1 N.S.C.O.



President of the International Parachuting Committee of the FAI, Horst Brandl (left) of East Germany with his interpreter

photo—Felix Meyer

THE RW SUB-COMMITTEE

The Sub-committee for Relative Work of the Commission Internationale de Parachutisme (CIP) of the Federation Aeronautique Internationale (FAI) — this is the official, if somewhat cumbersome proper title of the RW Sub-committee

The committee is responsible for the processing of information and preparation of the proposals to be put before the plenary meetings of the CIP proper, on the overall subject of relative work. In short terms, it is the body that watches what happens in the worldwide RW activity, and suggests competition forms and rules to keep competition up to date with the international development.

When the sub-committee was formed in 1972, no form of relative work was recognized by the FAI/CIP. The appointed committee members (Ness, Wijnands, Heaton (USA), Ivachenko (Yugoslavia) and Murphy (Ireland)) saw as the most important task to remedy this. Many countries' jumpers are dependent on their activities being "in the book" to receive various permissions and aid. The first task delegated to the sub-committee was RW record rules for the FAI Sporting Code.

During the five past years, the sub-committee has achieved the following:

- 1. Introduction of the 10-man speed star and Largest Star concepts into FAI recognized records. (1972).
- Development and practical testing of a rule system for international RW competition, based on the 10-man speed star and the 4-man sequential. Participation by the committee in the planning and execution of the First World Cup of RW at Fort Bragg (1973) and Second World Cup at Wonderboom (1974) perfected viable rules.
- Proposed and got FAI approval of the RW World Championships as an accepted equal to the Style and Accuracy World Championships that had reigned since 1952. (February 1975).



The 1977 RW Sub-Committee
Curtis (USA); Charter (RSA); Ness, Chairman (Norway);
Wijnands (Holland); Shea-Simonds (UK).

- 4. Achieved the first bid from an organizer for a RW World Championships (Germany—Warendorf 1975).
- Designed and tested, based on American-developed sequential RW, a new RW concept. This 8-man/4-man revolutionary RW was successfully tried out at Oudtshoorn in 1976.
- 6. Proposed and got FAI approval for this new concept as the RW competition form for the future. (1977).

The sub-committee feels that the introductory and developmental work is through its birth throes. The road has not been easy. By 1977 the work ahead should be a perfectioning phase, rather than radical changes. An important aspect is to secure the dissemination technical knowledge, to spread the RW concept, and to bring the nations in the rear closer to the top. Lets cooperate on bringing up the rear. That is up to the jumpers.

PRINCE'S POINTERS

When your reserve needs a repack and you pull the handle does it stay shut? I've seen plenty that do. It never fails to amaze me how people can be so complacent about a malfunction and malfunction it most certainly is. The usual comment is "Ah, but it won't happen in free fall will it with all the wind pressure around it". Well don't kid yourselves, it can happen "for real", and if you don't believe it just ask Scotty Milne. He had an anxious couple of seconds tugging at flaps when it happened to him.

So why not eliminate the problem? Get rid of the cones and get loops fitted. On most conventional reserves the conversion would take about 15 minutes at the most. Two ½in knotted loops of 550lb rigging line with the cone removed passed through two holes based in the stiffener plate makes an admirable job and can be done quite cheaply.

I saw an interesting malfunction a few weeks ago on a Strato-Star. The slider came down but left one of the grommets tight up to the canopy!!! You can imagine the resultant mess. The jumper in question had in fact noticed the grommet showing signs of working loose whilst packing, prior to the descent, but thought "it was

good for a few more descents because it's nearly new"!!! So if you jump a Strat with a slider on, keep your eye on the grommets and if you find any signs of them working loose get it fixed right away.

If you want a first class aerial photograph of your D.Z. write to:

Air Photographs Officer, Air Photo Unit, Prince Consort House, Albert Embankment, London SE1 7TF.

This is a section of the Department of the Environment and used to be the old Ordnance Survey. They have a photograph of most of the British Isles, and what's more they can be bought dirt cheap from them. You will have to fill in several forms and wade through red tape, and it took me about two months to get a remarkable clear set of prints, but was well worth the frustration.

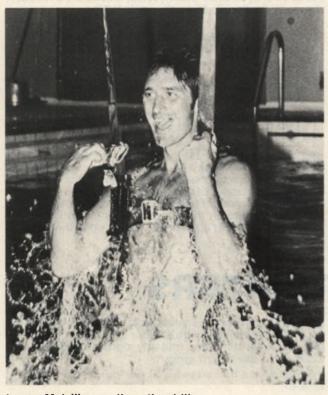
Keep Alert,

PRINGY.

DZ - POOLE HARBOUR

'A well-planned water-descent is a refreshing diversion on a warm summer day' writes the author of 'Sport Parachuting', and eleven members of the Army Parachute Association proved him right in July, at Poole Harbour, Dorset

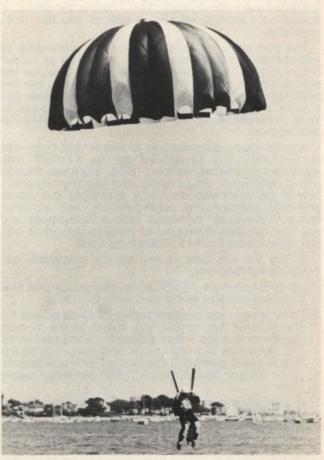
After travelling from Netheravon we assembled at the swimming pool at the Royal Marines Camp, Poole, for what was anything but a 'dry run' over the water jump drills, instructed by Sgt. Tony Rose. Here we took time in being suspended over the water while we followed the drill of checking canopy, removing and lowering the reserve (which was separately attached to the harness by a 2 ft length of stout cord) and then locating the capewell covers, but not opening them, to await the impact of the water. As our feet touched the water, we pulled the dust cover down and completed capewelling.



Lenny Melville practices the drills....

Once all were familiar with the drills, we lunched before re-assembling for the jump.

Our dress consisted of a helmet, old jumpsuit a tracksuit over a swimming costume, and plimsolls. We all wore military style lifejackets with the supporting lobes freed from their pouches and inflated with a breath or two of air, sufficient to give some buoyancy but not too much to hinder the proper fitting of the parachutes or to impede free access to either ripcord or the capewells. These lifejackets are fitted with a CO² bottle for rapid inflation if necessary and care again was taken to ensure that, the operating handle could not be inadvertantly activated. Everyone carried a knife (strapped to a leg — not the reserve).



.... for the real thing



.... whilst Geordie Laing fixed himself up with a P.C.

We emplaned at Hurn Airport and in no time at all Major Gerald Stacey was flying over the Islander the target area for the W.D.I. Below was the reassuring sight of the Royal Marines in their pick up boats, one per parachutist on each pass. Another quick circuit and we were running in at 4,200 following the first two out, I am conscious first of how different free fall feels in just a thin nylon track suit, then I remember that I should be counting! (no instruments of course). We are over land as we open so start driving immediately towards the water embarrassing to course all this way and land on the beach!) before securing my ripcord and lowering the reserve. On approaching the water I turn into wind and, about 20 feet up, locate the capewell covers and await splash down, before capewelling. As the slight breeze takes the canopy down a pickup boat is already alongside. I give the prearranged signal that I am in no difficulties and the boat goes on to retrieve the canopy first.

Once we had been picked up the second pass outlivened by Len Melville's comments when he realised that C.C.I. Geordie Laing had packed himself a PC — we all had TU's.

All too soon it was over and we were on our way back to Netheravon to wash out the parachutes and all auxiliary equipment in fresh water, and for the first-timers could buy rounds of drinks!

Our thanks for a highly successful day must go to Major Stacey, Officer Commanding J.S.P.C. Netheravon for the use of the J.S.P.C. Islander and for piloting us; the Commanding Officer, Royal Marines, Poole for use of their facilities and particularly for providing the pickup boats with their expert crews, Mr. Allanson, the Harbour Master; for the use of his, pleasantly warm DZ to Sgt. Tony Rose who prepared the kit and provided the expert tuition, and finally to CCI Geordie Laing for organising it all.

PETE DOWLING.

BUZZ'S CANADIAN COLUMN

Nine months ago Pierre Forard was an unknown quantity in Canadian competitive parachuting. By September 26, 1976 he was second only to one other in the world standings. A phenomenal performance in such a short time. One year ago, Pierre had made approximately 400 jumps. By the end of July at the Canadian National Championships he had made 1500; that is something over 1000 jumps in twelve months. He trained with Jim Lowe in Seattle, and with the U.S. Parachute Team at Raeford.

He arrived on the Canadian competitive scene at the Quebec and Ontario Provincial Championships in May and June. His style times were of the order of 6.5/6.6 seconds. At the end of July at the Nationals, he became Male Champion with an average style time of 6.7 seconds, and a total for ten accuracy jumps of 0.52 metres. In September he became the World's second best male individual parachutists with an average style time of 6.8, and a total of 0.06 metres for eight accuracy jumps. This is the best performance by any Canadian parachutist at a World Championship.

Our first participation in World Championship parachuting was in 1958, when Floyd Martineau was our lone entry in Czechoslovakia. In 1960 a three man team went to Bulgaria. In 1962 a full men's team of five took part, together with three women. The men's team set a World Record in group accuracy during the team's accuracy event. A full team went to West Germany in 1964 with the men's team placing third in the overall standings. S. F. Wykeham-Martin won a second place silver in the individual accuracy, and the men's team a second place in team accuracy. These were Canada's first medals in world parachuting competition. We have continued to send a full team to each World Championships since 1964. In 1966 no medals were won, but the men's team placed fourth overall. In 1970 the men's team placed third overall, and Carol Brand won a third place bronze in the overall standings. 1972 and 1974 were not particularly good years, but Steve Sutton had an outstanding performance in Tahlequah to win second place silver in individual accuracy

In terms of absolute ability and performance the 1976 team was the best we have ever had; very experienced and mature. It remained to be seen whether we had improved relative to the performance of other countries. I think it can be said that we have more than held our own. In addition to Pierre Forard's performance, the other men placed eighth, Gunter Stefan, eleventh Craig Winning, thirteenth Rod Bishop, eighteenth, Neil Perks in individual accuracy, the last named with a 0.25 metre total. This performance was the best aggregate performance of any

country in individual accuracy. Our Style performance was not of the same order and two bad jumps in team accuracy kept us from the medals in that event. Our men's aggregate Style, in effect placed us in fifth place overall. The women's team's performance was on a par with prior championships.

One final word about the style performance of Pierre Forard. Having watched and judged his style jumps at the Nationals, I can say that his style technique is notable for the fact that it is so crisp and clean, and in most instances, completely penalty free. He has so much control over his mental approach and his body that he has no need to resort to "pencil turns" (pitched at an angle well over 45°) or to peculiar second and fourth turns that look more like backloops; at least to unbiased and political observers. In Pierre we have a real World Champion.

He has achieved this without any form of government financial assistance. As I explained in the last issue, government funds were channeled to Olympic athletes in a pathetic attempt to buy medals in Montreal. The Gameplan 1976 designated athletes as A-card, who received 100% funding for travel and training, and B-card, who receive something less. Our nine medals in Montreal effectively cost millions of dollars each. The same ridiculous approach is to be taken for the 1980 Olympics. Non Olympic Sports are to be sacrificed for what. A medal list or point count, both of which have been created by the media, and both of which are discarded and forgotten, once the two week extravaganza is over.

It is indeed ironic that the bureaucracy have seen fit not to grant any financial aid to CSPA for the 1976 team, and in this year we have a competitor like Pierre Forard. It is indeed a truism that the World Class parachuting competitor in non communist bloc countries must make a sacrifice that is great, and sustainable for only a short period of time. Consequently it is not possible to maintain that performance over a number of years, as is the case in state supported organisations, and as a result the whole competitive effort is unable to develop as it should.

One may entertain the hope that Pierre's performance may stir some realisation that Canadian parachuting can approach and reach World Class standard, and that Canadian parachutists are of "A-Card" standing, and are worthy of more support.

Somehow I feel that this hope will be unrealised. Parachutists do not provide many votes, and the media do not find parachuting a very newsworthy item.

BUZZ.

EXERCISE POPE VALLEY

During 1976 it was suggested by Arthur Gibson that a trip to the USA be organised for the purpose of learning something more about relative work. Numerous people were approached, the result being that sixteen guys, mainly from the Army Group that jump at Netheravon were keen on the idea.

Preparation started immediately and the trip started to take the form of an adventurous training exercise. Contacts were made with various companies in the USA and UK, some of whom agreed to sponsor the exercise. General Motors USA and Puma sports equipment being the important bodies willing to provide assistance.

The Army Parachute Association agreed to back us quite substantially along with other departments and individual units within the Army. "Exercise Pope Valley", was the result of months of letter writing and telephone calls by a few individuals led by Arthur Gibson. The exercise period was take place between 17 December '76—15 January '77. Seven days of this period were taken up driving across the USA.

We actually arrived at Pope Valley at 0730 hours on 21 December '76 and decided to take a day off, even though our jumping instincts told us to get among those big blue clouds, before they moved on. Common sense and hidden weariness eventually made us see sense, so we watched the Americans for most of the day. Some of our group watched in awe at the size and shapes of some of the formations the local natives put together, and in such a matter of fact way, without showing any signs of accomplishment. This was in fact the norm for American Jumpers. To us it was like watching a bunch of sky gods doing their very own thing. What went on in the minds of those humble Brits during that day could not be con-

cealed by the expressions of sheer excitement and eagerness to get up amongst that big flat cloud. Tomorrow we would be up there doing our own formations, or so we thought. Our minds had become so intoxicated with the apparent ease the natives used to put formations together in the sky. Thus, the air in California being exactly the same as in the UK, made the majority of our formations that next day, just as elusive as they are in UK. The group had to be slowed down, made to relax, made to realise that the training had to be carried out in small groups and with discipline, self imposed and that form of discipline suggested by others.

Our training method was decided upon after those first few jumps. It was to consist of jumping in small groups of no more than five persons. Two serious jumps followed by a fun jump. As it turned out however, the fun jump stayed entirely serious due to individuals frustrations about their performance or lack of performance on previous jumps. The inevitable happened, we had to end up with a dunces group; those fellows not jumping to a reasonable standard. Ironically, the fellows in this group had the most fun and were more relaxed than the guys who were showing steady progression.

Various complicated formations were attempted, some with great success, considering the standard and type of relative work we had become accustomed to flying. To our disbelief and frustration we were plagued with bad luck. Each time we accomplished a good formation, the camera would go haywire in one way or another, therefore we never managed a good photograph of some of our better jumps. It was always the small groups that the camera performed for correctly. I hasten to add at this stage that a few good shots turned out reasonably well.



I had always imagined that after approximately three and a half years of unsuccessful eight-man attempts, the first time we accomplished this evasive formation, the group would be over the moon with delight. Unfortunately, it did not work that way. The people who were in the first nine-man, were so concerned about one man being so far below, instead of in the star and grinning, that the whole sense of achievement was lost on them.

"A nine-man; but there was one man below". That was the most disappointing part of the whole trip, the casual acceptance of a goal we had been trying desperately to achieve for years. This might have been the sign for bigger formations to come. In actual fact it was, the larger formations came towards the end of the trip, in the form of a fourteen and fifteen-man cluster plus slightly smaller formations. Eleven British jumpers were in the larger formation although we never got more than nine Army guys in any of the larger formations. Recognition was required somewhere along the line, after so much effort had been put into this team. This recognition presented itself in the form of a rather quiet quy, whose eyes appeared to miss not a detail. He gave me the impression he liked to hear the truth about a jump, this impression was verified later. This friendly character was really deep into the world of holding hands in the sky and a blessing to us, because he actually showed an interest in what we were trying to achieve. After some canoodling, I say canoodling because the time he spent jumping with us, he could quite easily have spent jumping with experienced groups, anyway, he decided to help us out.

Scratch Garrison turned out to be a bit of a sky demon, no matter where you looked for him in freefall, he could not be seen, mainly because you were looking for him in the places where you would expect him to be, instead of

looking for him in the place he had already got himself to; the right place. The first thing he taught us was, we were to be flying relative from the time we started to move toward an exit position on a practice exit, and we were to keep flying relative until wave off on the actual jump. His way of putting this over to us was to say, "you don't get out of the aircraft then start flying and you don't get to the door then dive out, what you do is you dive from behind the pilot (DC3) not from the door and this means you have started flying before you leave the aircraft".

Common sense when you think of the logic in that statement. Scratch Garrison's logic and thoughts were put to us in numerous ways during his coaching, briefs, debriefs and explanations of flying. This quiet guy taught us so much during this training session that every guy in our group learned a whole lot of common sense and what's more important, a new attitude adjustment towards the build up of a formation, before you even consider going near an aircraft.

If only the narrow mindedness of competition and the hassles created by this aspect of our sport could be eased somehow, this would make it so much more fun. Just to go and dive out of an airplane, to do something enjoyable without having to think or worry about beating somebody else. The ideal group is one that jumps for each other and above all, jumps for fun. If we could all adopt this attitude we could surely accomplish so many better things.

The team thanks all those who helped this group do something well. Special thanks to: Curt, Scratch, Frenchie, Kevin, Roger, the ranch staff and Major Gerald Stacey back at Netheravon.

LOTT ONE.



Eddie McBride photographing Paul Hibberd photographing him!

THE HUMAN FACTOR

Build a better mousetrap... design something into a piece of parachuting equipment that is a new, different, faster or lighter way to "do the job" and you enhance its marketability. Unfortunately, sales appeal does not always bear a direct relationship to improvement, especially when improvement is cast in terms of safety, efficiency and susceptibility to human error — the human factor.

Throw-out and hand-deployed pilot chutes, plastic hardware, new-concept canopy releases, ram-air canopies — all highly innovative ideas from industrious and conscientious equipment manufacturers and jumpers — have caused major shifts in thinking and capability in the jumping community with respect to the gear we use. The process of evolution that took place between the B-4 and the Top Secret or Wonder Hog has resulted in something akin to Toffler's "future shock". Specifically, a lot of jumpers at widely diverse levels of experience and talent are using equipment without an adequate knowledge of:

- how the equipment actually works
- what the inherent dangers are
- how to deal with malfunctions peculiar to the particular piece of gear
- most importantly, how susceptible the gear and its sub-systems are to errors in assembly or use

and in many cases the ignorance is so profound that they don't even know enough to ask questions or imagine problems.

I do not in any way want to imply here that the equipment manufacturers and innovators have designed or are designing gear that is deficient in accomplishing the function for which it was intended. (Some of it *may* be deficient, but that is another topic.) However, some equipment is designed with apparent inattention to, disregard of, or ignorance of the way it is actually employed.

Let's look for a minute at the process through which most equipment innovations pass before getting "out on the street".

- someone, a manufacturer or just some jumper, has an idea, a "better way", usually due to some dissatisfaction with what he has
- he toys with the idea, designs and makes a prototype or alters his present equipment
- he asks himself, "Will it work?", "Can it break?", "What happens if it doesn't work or does break?" and "Is it really better (lighter, faster, easier to use) or is it just different?"
- if the answers to his self-posed questions are optimistic, he proceeds to make one, then jumps it
- he "tests" it using "reasonable" safety precautions.
 The tests may vary from "I'm alive so it must work," to full-blown FAA-dictated strength tests or drop tests with supporting test design reports and data submitted for approval and TSO.
- in the tests of the equipment, he is highly prone either to test it himself or elicit the help of highly experienced friends or employees to make the test jumps "because they know how to evaluate it"
- if the results appear favourable, he markets the gear and watches to see if unforeseen problems develop and if the community response is also favourable.

 maybe, many many months later, the USPA Safety and Training people or some interested jumper/writer will do an equipment article for *Parachutist* explaining their test results and describing how to use the gear properly.

This process, which differs in detail in every case, has some positive, constructive results. With some exceptions, we have equipment which is

- safer
- better looking
- "cleaner" aerodynamically
- more comfortable
- lighter in weight
- more durable
- less prone to malfunction
- occasionally, less expensive.

But there is a negative side. Things do go wrong with new equipment for various reasons. People do get hurt and killed, or more frequently just scare themselves. Worst of all, people with little to no knowledge of equipment manufacturing and testing or of the nature and intent of a new design or, especially, of human factors do attempt to copy new equipment design features in order to save themselves time or money.

I saw seven hand-deploy or throw-out pilot chutes "in tow" that necessitated reserve deployments at the last Turkey Meet. They occurred with a variety of rigs, some just crude imitations of good gear. Most of them were due to "people errors".

At least two people are dead because they confused a Capewell cover with a blast handle after a cut-away (same shape and feel, four inches apart).

People have deployed reserves because they could not find the plastic golf ball or the "little red tab" on the end of an external pilot chute.

People do thread chest straps through ripcord handles. It's easy!

I have seen and used equipment with critical functional features that were easy to see but hard to locate and use by feel alone.

When an equipment manufacturer sees a malfunction on gear he made and investigates the cause, then chuckles and "writes it off" with a statement like, "You just assembled it incorrectly. There is nothing I can do about that," he is missing the point. He is admitting that he is making laboratory equipment — a system that works well in the absence of all the "extraneous variables" like wind and cold and funnels and fast pack jobs to make the next load. If the gear can be mis-used, mis-rigged or mishandled, it will be. It is the nature of the human, even if he is sharp enough to be a good skydiver.

We have to consider the physiological sense or combination of senses that are depended upon to operate a piece of equipment and the actual situation in which it will be used. As in many other situations where habit patterns of complex movements are involved, we become more dependent on feel than on visual control of those movements, especially when there are other high demands on our visual system, like ground rush.

Equipment testing cannot be considered adequate

when it is restricted to the manufacturer himself or other experienced people who completely understand the system, and when that is not the type market to which sale of the gear is "limited". There must be some determination of the susceptibility to human error when used by much less experienced and less aware jumpers who may not understand the system at all.

There is no more excuse for placing the total blame on a jumper who makes an error in the use of his equipment than there was to place the total blame on pilots of WW2 vintage aircraft who landed with the wheels up when the landing gear and flap levers were exactly alike and side-by-side. Both worked the way they were supposed to, but the susceptibility for error was high.

The human factor is systems design must be considered from the beginning and all the way through in the development of new equipment, from connector links to complete assemblies.

Some of this consideration becomes rather involved. For instance, pulling a ripcord requires conscious *effort* (as opposed to breathing, which is sub-conscious) but it may not require your *attention*, given enough experience. How often have you initially reached for a ripcord where it used to be before you changed systems? It is the reason we tell students to look at the ripcord before pulling. It forces attention to the task at hand and reduces the chances of pulling the reserve ripcord, Stevens' lanyard or main lift web in error. With increased experience, attention is usually not required to perform a routine task, but if an error is made, then attention is required to correct it. Equipment must be built for consistent, non-attentive, proper use with a low probability of error, *by design*.

So there is a problem... what do we do about it? There is gear on the market that comes with no written operating instructions — an "owner's manual" — with the usual exception of packing instructions, and these are often only for the reserve. There are no restrictions imposed by anyone on the sale or purchase of equipment and few restrictions (in this country) on the use of advanced or high-performance equipment or sub-systems. I don't think we need or want that sort of restrictions, primarily because they are virtually unenforceable except in tightly controlled situations. But there is a way.

A jumper who makes enough mistakes on RW loads doesn't get asked on very many more until he improves his performance — self-regulation by the community.

People don't loan money to a known deadbeat — strength of reputation.

The turkey who buries a disc and leaves it there catches a ration of grief from the next guy in who "had it wired" — peer pressure.

Ripcord stops finally fell by the wayside — organizational pressure, not regulation.

The novice jumper who wants the latest gear is more likely to hold off buying it if he is told he *ought* not to get it by fellow jumpers rather than being told he *can't* get it by some "authority" — appeal to basic motivation, group acceptance.

The high puller, the railroader, the dude with the foul pits — they all *lose face* eventually.

People who design and manufacture new equipment have to make a profit and they deserve it. Potential loss of profit is an effective motivator. If new gear is shown, publicly, to be highly susceptible to human error of serious consequence, it will be improved or it will be ostracized by the community at large.

Manufacturers can improve the situation by asking

themselves throughout the development process, "How likely is it that an overly ambitious, half-lit jumper with little experience and a lot of pressure will use this equipment incorrectly and how much trouble will he be in if he does?" and "How can I design it to minimize that risk?"

The user of the equipment can keep himself healthier by asking "What sort of mistakes *might* I make with this gear?" "How can I check myself *before* time is critical?" "What will happen if I *do* mis-use it?" "Am I comfortable enough with my equipment that concern about it won't distract from the other things I want to do in the air?"

Time dedicated to thinking through potential equipment problems is time well spent. If you can conceive of some unusual situations and think through the corrective actions thoroughly, mentally rehearsing them step-bystep, chances are, when the situations do occur, you will follow the procedures "instinctively" with little demand on your attention. Retrieval of the steps from memory will not require your attention; only their execution will, and you will have bought yourself more time. It's a good investment.

Communication is the process by which reputations and group opinions are formed. If you make a mistake with your gear or if it "breaks" or you see a potential problem with it, admit it; make it public; help somebody else avoid it, remembering that it may not be simply a dumb mistake or a freak occurrence. You might have been partially victimized. At least with someone else to blame it is easier to talk about it.

So let's continue to innovate, redesign and improve the equipment we use. Those who do so are making substantial contributions to the sport and its overall progress. But that progress is multi-faceted and it must not be made at the expense of safety.

ROGER HULL.

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BRITISH PARACHUTE ASSOCIATION SAFETY AND TRAINING COMMITTEE MEETING, THURSDAY 3rd FEBRUARY 1977 held at BPA Offices, Kimberley House, Leicester

PRESENT

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n

B. Jones *L.B.F.F.C.*J. Curtis *L.P.*E. Finney *M.S.P.C.*D. Prince *N.W.P.C.*K. Allen *R.E.M.E.*J. Sharples *M.P.C.*

OBSERVERS

P. Fisher	J. Bromfield
R. Gays	S. Lear
D. Palmer	J. Wright
E. Strawson	S. Dyer
M. Bolton	D. Cox
P. Howell	M. Smith
P. Young	P. Jones
M. Oulton	G. O'Hara
A Lomas	F. Collins
A. Bromfield	D. Howerski

Apologies

M. Berry	I. Dixon
P. Corr	N. Law

Item 1

INSTRUCTORS CONVENTION

This was discussed as some members of the committee felt that future Instructors Conventions should only be used to collate ideas and to make recommendations to STC, not to change the Regulations. This was agreed unanimously.

Item 2

CATEGORY SYSTEMS

It was agreed that Categories IX and X were not comprehensive enough as currently written, and various alternatives were suggested. The following changes were agreed:

Category IX — delete para b. Insert new para b: "Has demonstrated his ability to perform the following aerial manoeuvres: forward loops, backward loops and barrel rolls".

Category X — delete para a. Insert new para a: "Has been cleared for unsupervised relative work having successfully demonstrated the following:

- (1) The ability to execute a link, followed by a backloop and a second link with a Category X parachutist approved by the CCI, on a single jump.
- (2) The ability to close third on a three man group on two separate occasions.

Item 3

PI QUALIFICATIONS

An excellently thought our paper by Sue Lear was discussed. It was agreed that her recommendation of a basic D Certificate qualification not be implemented as this had already been increased from 100 descents to 150 descents at the recent Instructors Convention. It was agreed that her suggestion of a session on common student problems being included on Instructors Courses was a good one; to this end it was agreed that CCI's should send a list of their more common student problems to the NC/SO for collation.

Item 4

BAG SYSTEM

The NC/SO informed the meeting that 21 clubs had so far returned their completed proforma on the Bag S/L System. It was anticipated that the final report on the Bag S/L System would be available for the next STC Meeting.

Item !

REPRESENTATION FROM RSA

R. Acraman requested that he be represented at STC by P. Young (with a vote). This request was agreed unanimously.

Item 6

EXEMPTIONS FROM SIX MONTHS PI PERIOD

There were two requests as follows

a. M. Geelan, an ex RAF PJI with 700 plus jumps was recommended by J. Laing and D. Peacock. This was granted as it was considered that as the applicant was already a service trained free fall instructor the full six months PI period was unnecessary.

b. R. O'Leary, a PI with 200 jumps plus was recommended by G. Philips. It was considered that his request could not be granted as it was claimed simply on the grounds of inconvenience, i.e. R. O'Leary was due to be out of the country at the time of his scheduled exam week.

Item 7

REQUEST FROM D. ORTON

As he was handing over as CCI of Halfpenny Green to D. Hickling, D. Orton requested he be allowed to continue as a member of STC. It was agreed he be co-opted as a non-voting member.

Item 8

PI ASSESSMENT

D. Hickling had produced a PI Assessment Record and the NC/SO announced that he intended to use this on the next PI Course. This was approved.

Item 9

AMENDMENTS TO REGULATIONS

As a result of the new CAA introduced Display procedures, the NC/SO produced a suggested draft of changes in Section 21. These were approved and are reproduced below.

Item 10

CAPEWELL SUBSTITUTES

The ever increasing use of Capewell Substitutes was discussed at length. The following was finally agreed: That FAI 'D' Certificate holders only be permitted to use the following types— The 3 Ring Circus, The Pl/Lifewell System, The Rodriguez R2 and the Tapewell. Further types would be treated on their merits by STC. (Note—this decision supersedes that announced in the February issue of Sport Parachutist).

Item 11

EXAMINERS AND ADVANCED RATINGS

a. An Advanced Rating was requested by Ian Robertson, recommended by R. Burn and T. Dickson. Approved.

b. An Examiners Rating was requested by D. Howerski, recommended by NC/SO and J. Laing. Approved.

Item 12

DZ APPROVAL

A request from A. Collingwood in Northern Ireland concerning the approval of Mulloghmore as a student DZ was considered. It was agreed that E. Lewington be informed for his comments but STC agreed that the DZ was suitable for student training.

Item 13

COLLEGIATE COMPETITIONS

It was pointed out to the meeting that the Collegiate Competition to be held at the end of March at Sibson was open to "Category

A?" students. It was agreed that the NC/SO write to the organiser, Mr. Zisman of the University of Sussex and remind him of the minimum requirements to enter a competition was an FAI 'B' Certificate with a CCI's recommendation.

AMENDMENTS TO BPA REGULATIONS SECTION 21—PARACHUTING DISPLAYS

4. **Team Registration.** Display Teams are to register annually with B.P.A. using the application form at Appendix J*. The team will then receive a certificate of registration together with a copy of the B.P.A. Display Manual; the latter details all display procedures, including application for the mandatory C.A.A. issued Display Period Exemption.

6. Restricted DZs.

a. Parachutists holding FAI 'D' Certificates may give displays using DZs of not less than 75 yards diameter, which are free of

major hazards and providing not more than 10% of this area is taken up with minor hazards (see section 13). In all such cases, however, adequate overshoot areas must exist on all sides.

- b. FAI'C' Certificate holders may give displays providing that
 - (1) They have made at least 100 sport parachute descents.
 - (2) The DZ is at least 150 yards in diameter.
 - (3) They are approved for such demonstrations on to Restricted DZs by their CCIs.
 - (4) The aircraft is carrying a jumpmaster who is a BPA Instructor holding a 'D' Certificate.
 - (5) There are adequate overshoot areas on at least three sides of the DZ.
- * The existing Appendix J should be deleted. The new Appendix J is available from the BPA Office.

So you want to be an Instructor?

Being one of the newest Instructors to have obtained my rating I thought that my experiences over the past season may be of some use to others contemplating applying for a P.I. Course, and possibly to all Student Parachutists.

I doubt that anyone applying for and attending a Potential Instructors Course really appreciates just what is going to be required of them. Having satisfied that most honoured person, your C.C.I., that you are possessed of the necessary parachuting skills, and proper attitude and mental approach to parachuting and Instructing; it comes I think, as something of a shock to realize that the P.I. Course concerns itself, quite rightly, with academic teaching skills and practices; and with you being further assessed as to your mental attitude and your capacity for controlling yourself, your circumstances and the people around you, both in and out of the aircraft. Forget the idea that the P.I. Course is just a week of fun jumping with new found friends. It's fun alright, but be ready to work hard as well

It comes, initially, as a relief to return to one's home D.Z., to be surrounded by familiar objects and people. But it's at this time that the real implication of what you have committed yourself to comes home with a bang.

Firstly the full realization of the enormity of the responsibility of being an Instructor. There can be no other sport where such total responsibility is vested in an Instructor so early in his or her Instructional career. It's no good, as a P.1., transferring your responsibilities to your C.C.I. on the ground, It's YOU in that aircraft. When you give the order for the engine to be cut, the student places active, positive and absolute trust in your judgement.

To fail to come up to expectations, in any respect, requires the instructor to examine himself most closely. Constant self-appraisal and self-criticism must become a way of life. In the event of a student being injured two questions, initially, must be answered with total honesty. Firstly, did you supply all the information that the student needed to make his descent and in such a way that it was properly understood, thereby giving every possible chance for that student to make a safe descent? Secondly, did you, inadvertently, say something which put the wrong information in that student's head? Thereafter, particularly in the case of a serious injury or, worse still, a fatality, was there anything that you should have done, or not done which could have avoided the accident?

With some students no amount of teaching will produce the desired result, and it is in this area that perhaps the most difficult skill must be cultivated by the Instructor. Namely that of being able to assess the mental attitude of the student; and the mental and emotional capacity of that student to cope with the stresses of parachuting. Enthusiasm alone is seldom enough and it is a difficult task to explain to a student or potential student that, in your opinion, they have chosen the wrong sport.

All these things come swiftly to a P.I. once he begins his 'active' service. But perhaps the rudest awakening is in finding out just how much ordinary hard work there is to be done on a D.Z. The next busy day you have at your club, large or small, take the trouble to see how much time your instructors, particularly the C.C.I., spend lying in the sun. I can almost hear the reply that Instructors get plenty of jumps as a reward for their labours. But the jumping done by Instructors is seldom what they want or need to advance their own parachuting skills. Don't think that on reaching Category X that there is nowhere else to go. Particularly now that relative and sequential competition is with us, the imaginative parachutist has a whole new world before him. The Instructor often gets left behind by his peers who can devote their time to these aspects of parachuting. As a P.I. or Instructor, your own jumping is quite likely to suffer.

You may well have already read such comments as these in various publications, but possibly thought they were no more than supposition and speculation, dreamed up to try to enhance the status of Instructors; which is why I thought my personal experiences may be of value.

It is possible I may have painted a black picture, so why become an Instructor? The rewards make up for all the points on the minus side. The sense of satisfaction when students progress, often by overcoming difficult problems, is immeasurable. The feeling of making a positive contribution to the continuance and advancement of our sport at grass roots level is one to be savoured and enjoyed. In conclusion may I say to all students, your Instructor does his utmost, but perhaps you can help him or her a little more than you have been doing. And to all who may be thinking of becoming an Instructor, if you are motivated by the prospect of having first crack at the women students, free beer and possibly free jumping, then stay where you are before you kill someone.

GORDON LILLY, D.1611.

R.W. TECHNIQUES - SOME BASIC STUDENT EXERCISES

The title here could be a little misleading as far as the word student is concerned, many of the following techniques and exercises are unknown and untried by most instructors, including myself.

The basic difference between these techniques and previous student RW progression methods is that this one teaches you to fly as opposed to just going down and linking.

There are something like eight basic directions and velocities in which a falling human body can move, with overdrive in a few this soon becomes 12. Present instructional methods cover 2.

The student is then left on his own and spends about 300 to 400 RW jumps, learning by experience what he could have been taught in the first place in about 20 jumps.

Basic Principle

The use of a reference point i.e. the instructor. The student watches the body position of the reference point alter and then see's the resultant movement. On a given signal the student initiates this.

Non Contact RW. Flying close, close enough to touch and there is contact. This ensures maximum RW effort as you are not linked and must work throughout the entire descent.

Noncontact RW is the quickest and most effective route to being good, regardless of your experience level. It is used 50% with links in this system and not solely alone.

Safety. All the normal briefing and break-off heights apply. Instructors should point to the ground in the middle of jump and instil some altitude awareness throughout the training. All students should spot their own jump throughout the training.

Exits

Two types are used depending on the jump you are doing.

- 1. The student as base with his left hand on the trailing edge of the door and his right hand on the strut. The instructor sat in the triangle formed by the fuselage, underside of the wing and the strut. The instructors back to face the propeller. Student uses 4-man RW count, "Everybody Ready, Ready Go!" On the second ready the student hauls himself up close and cheek to cheek with instructor. As he moves back they exit.
- Student and instructor both get out on step and strut and both adopt basic student exit position, facing direction of flight. They are side by side and exit together.

Sequence and Order

Basically I am at present experimenting with these jumps and have not as yet worked out a logical order in which to teach the various techniques covered. However one thing is clear. The first few jumps are devoted entirely to "close in work" and long distance horizontal and vertical flying are completely ignored. So start "close-in" and forget about everything else.

The Jumps. Some of the following jumps are mine, most of the ideas and principles are borrowed or stolen. Other jumps are in the unadulterated form as given to me by Roger Hull and Scratch Garrison. You do not have to do them exactly as they are presented. What I suggest is extract the principle and make it a 50% instructor working and 50% student working jump. I will have to do this myself as a lot of the techniques are new to me.

From the jumps I've done I can sincerely say that it is not as difficult as it looks, it is relatively simple and damn good fun.

Altitudes. This is dependent on how you modify the jump and the standard of your student. I suggest you start high about 9,000, 10,000 ft for maximum RW time at the cheapest price.

As your student progresses you can lower the altitude and modify the jumps. Common sense in deciding on what type of jump is the key.

Workload

Always plan for more than you know you can do. This ensures maximum working throughout the descent. Have an alternative manoeuvre, i.e. if everything goes wrong, instructor will pin student in 2-man conventional link.

Equipment

You know your own equipment and jumpsuit, check out your students. You can prepare yourself before you leave the aircraft for what type of flying and adjustments you are going to have to make in order to make the jump a success. If you think that difference will be too radical then alter it. Either put a conventional jumpsuit on yourself or put a slightly large one on your student. Whatever you do try and eliminate or at least prepare yourself for the obvious problems.

Dirt Dives

Practise your exit and count from the A/c and also go through the whole jump including Break off and opening.

DO THIS AT LEAST SIX TIMES ON THE GROUND.

Free fall time costs money, if you dirt dive properly you can eliminate something like 75% of your students mistakes before he or she makes them. Lie on the ground. Move around the ground. Give your student an accurate picture of distances involved and the time involved.

You can spot the mistakes at this point, wrong body positions, rigidity, incorrect use of the head and many other things will become immediately apparent. If they do it wrong on the ground and you don't spot it, then they will do it wrong in the air!

This is of immense value and it is very enjoyable and the end product is that the student who leaves the A/c knows exactly what he has to do and is convinced that he can do it (AND RIGHTLY SO)!

Make your mistakes on the ground, not in the air, it is cheaper!

After the jump "Dirt Dive" the whole thing completely as it happened. Again this is damn good fun and you will be surprised at what you will learn. Do not ignore this as it is probably the most valuable part of the training.

Mistakes

If any one of these jumps is a hopeless mess then do not push it or go up and do it again immediately. There is no need, just move on to another jump and carry on. All these jumps involve so much flying that sooner or later the one you messed up will automatically be covered in the process of another jump. A student suddenly finds he can do anything.

The Jumps

Jump A. Side-Slipping or Side Sliding

Student exits base instructor comes down, no contact RW and levels off a few feet away. Gives a signal and then sideslips left about 10 to 12 feet and stops. Signals student to come over doing the same. Student is briefed how to

make up for any changes in altitude and instructor works also.

This is then repeated to the right and is still no contact. Student is briefed for awareness and is made to watch instructor throughout the descent. Finally instructor pins student.

Jump B. Back Sliding and Hand Tracking

This is very similar to jump A and again it is basically no contact throughout with a link at the end. The instructor goes down and levels off fairly close. He then back slides away and at a given signal the student hand tracks towards him. On a second signal the student back slides away and then the instructor hand tracks across and finally pins him to complete the jump.

Jump C. Fast Fall and Slow Fall or De Arch and Reduction Student and instructor exit side by side off the strut. Student is briefed to watch instructor on given signal instructor reduces and goes down about 10 ft. Student is signalled to follow. Once together again. Instructor dearches and goes up about 10 ft. Student is again signalled to follow. Once together again a normal link is made.

Jump D. Flying Around

I'm still experimenting with this jump but basically the student flys around the instructor once the no-contact two man is set and the signal given. You could make this a 50% instructor working jump with him flying around first. A link at the end would be advisable.

Jump E. Constant Heading and Altitude

Instructor and student exit side by side. On a given signal the student moves around the instructor using a constant heading. In other words the student must back slide, side slip, handtrack and side slip. Again, if time, go for a link!

Also there will be a difference in altitude here and the student will have to sort that problem out as well.

Jump F. 2-Man "Gear Jump" Grip Switches and Leg Turning

I'm still playing around with this jump. It could well be wise to fly some No Contact accordians and then side slip them into a linked two-man accordian. Slowly progress to the head on approach from the side of the base, with a final turn prior to docking. Most attempts at a head to head approach as opposed to a side on, will inevitably end up with a rotating accordian.

Once this problem is over go straight into the jump. It looks good fun and has immense training value as far as sequential work is concerned.

Jump G. Back Sliding Hook-up Practice

This a new jump to me and I need practice at it so I will probably break this jump down into a 50/50 workload.

The exit again is a side by side off the strut. As you can see you are also practising, back sliding, side slipping and hand tracking in this jump.

The signal for the initial move would be a hand one and

for the second manoeuvre a double shake on the knee.

Jump H. Link Practice "No Tension Grips"

I have not yet tried this jump but it looks a good one. The basic idea here is to practice the different types of link and "NO TENSION GRIPS". Each time a link is broken you do not "PUSH OFF" if you are flying proper no tension, then you will remain very close. The values of a jump like this to not only a student but any RW worker are obvious.

Finally use of leg turns and control of a leg turn complete the syllabus here.

Jump I. "Hop-Ups" (Vertical Transitions) and Depth Perception

I've had a go at this jump and it is very good fun and extremely beneficial. It is not as hard as it looks.

Basically you need about a metre clear to fly either over or under anyone.

Also you must maintain your sideways or forwards momentum in order to pass through the burble.

Once you go underneath someone you do not have to adjust your altitude as you will drop them down to your level.

This jump will give a student good depth perception especially if they land on your back. It is not a mistake people repeat!

Again why not make this a 50/50 working jump and have some fun yourself.

Jump J. Links and Leg Turns

My knowledge of this jump is at present limited. The main idea here is to practice the student in leg turns, both starting and stopping them. However it looks like a good fun jump for any 2 guys who want to try it. I will probably use it as a 50/50 working jump.

Jump K. "Back-Ins"

This is a technique that I need practice in so again I would modify this and make it a 50/50 workload. You must practice this jump on the ground with about 30 feet separation initially.

Show the student how close he must approach on a head to head basis. He must use very slow flat turns and must not alter his body position during the turn. This will obviously create an unwanted altitude discrepancy. He must be told to look at the exact place he wants to put his knee. He must be close enough to touch it, before the turns. Finally before he starts his approach he should look and know where his own knee is.

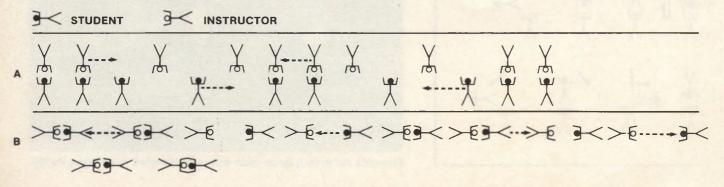
Conclusion

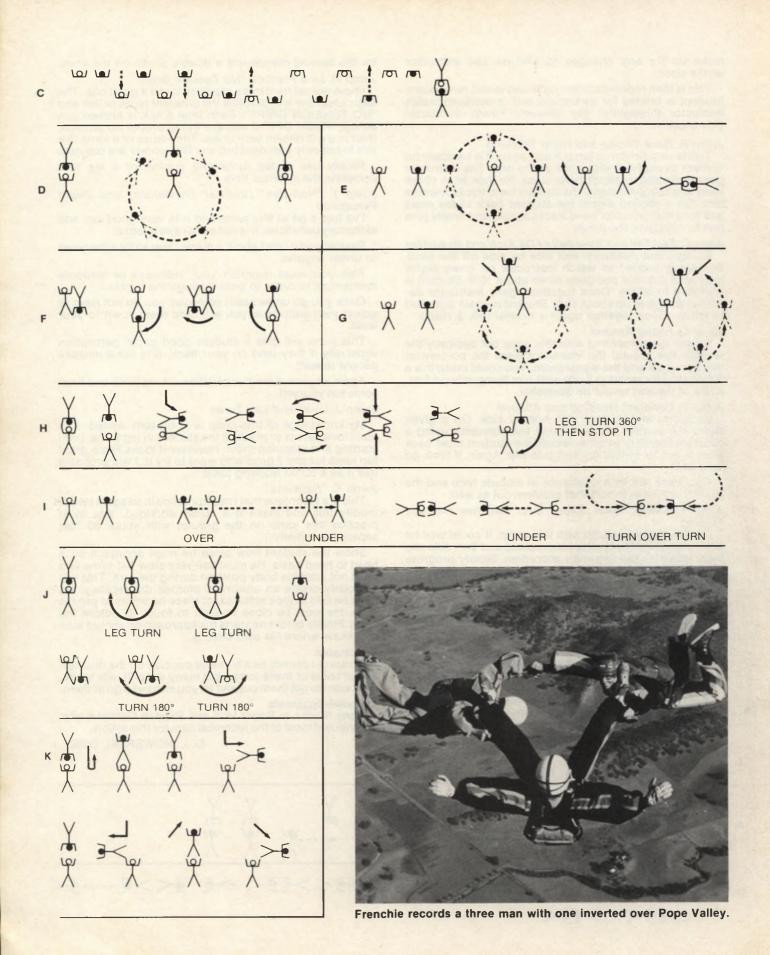
I'm sorry I cannot be a bit more concise on the description of some of these jumps but many are still new to me, I just want to get them out and let you all have a go at them.

Acknowledgements

Many thanks to Roger Hull and Scratch Garrison who contributed most of the technical data for this article.

D. L. HOWERSKI, D1027.





I learnt about Tee-Vee from that!

(or the apres, apres jump scene)

For those of you, who like me, suffer the agony and other traumatic effects of jumping withdrawal symptoms, especially after a hectic weekend at your local (DEE-ZED), it must have come as a shock to see a blonde/red headed bit dashing around the old cathode-ray tube one Monday morning in December. If the eyes were up to it, perhaps you noticed the BPA perspiry shirt with a P.P.C. sticker thereon. I did, too true, not half.

Well, lets start at the beginning and like all the most interesting parachuting stories "There I was", full of cold, swigging back the eighteenth pint of lemsip and thoughtfully chewing over yet another packet of aspro when it happened. It was one of THOSE sneeeeeezes, the kind your doctor warns you about (slipped discs, hernias, earache, cross eyes, etc. etc.). When the maroon flickery bits had stopped zooming around the retina and the reverberations had died away, I chanced a quick look to satisfy my curiosity as to the continued existence of the front room wall. It was then I saw, not a million miles from my still quaking ciliary muscles, Pam Rhodes shifting from foot to foot, extolling the virtues of and explaining about a very perplexed looking Concorde, which was hiding in a far corner of the screen.

Within seconds I had decided to try my luck (for an exclusive interview for Sport Parachuting natch)... So I primed me pins, took a firm grip of me handle and started on the perilous journey to North London. At the back of my mind, played the unrelenting fear of crossing extremely hostile and dangerous country — yes that is where Simon North lives.

Seven-thirty found me knocking at the door of £20 fills the spaces). It was opened by a fair headed person. "Ha Ha", I said, suddenly lost for words: "Are you Pam Rhodes???", — , he answered, he was Peter, Pam

lives next door.

Several mis-understandings later and Pam and I were at a little known but never the less completely devoid of human life... Greek Cafe. It was no good, I couldn't stall the interview any longer "Ummmm", I said "Nasty weather we're having". Needless to say, it was soon agreed that if the questions were to continue at this standard it might be better to conduct the rest of the interview in answers only.

I found a few minutes of lulling the victim into a false sense of security really paid off, within minutes I was able to pop the \$64,000 and indeed inevitable question... "WHY?" which was followed by the equally inevitable response... "WHY WHAT?", oh dear, instant stalemate.

At this point of the venture, I had planned to place in poetic phrases the call of the sky, the beckoning finger of a cumulus-nimbus, the irresistible urge fulfilled. Unfortunately, this was not what motivated Pam to make her jump, no it was mere money or brass as it is sometimes called by the metallurgists who are among our number. The contract that was offered for presenting the schools programme series "The World Around Us" stipulated the agreement to participate in all sorts of nice things, including, you guessed it, jumping. By now you may have noticed the complete lack of exclamation marks in this brief narrative, this, those of you who know me will agree, is so much out of character it's untrue. I've been nobbled, someone has swopped my! for a \$, I s'pose it's my mum trying to decrease the chances of libel litigation,

Oh well, now you know. Anyway to get back to the plot. . . Pam obviously didn't have to actually go through with this parrotshooting lark but decided to when (now this is a good bit) one of the camera crew, who incidentally is supposed to have jumped, reckoned it made one feel extremely randy. I just hope his mum reads this and finds the magazine he collected that little gem out of. If you have any problems luv, its called P-N-H-U-E; and what's more, we all Know who has written articles for that mag don't we. Well whoever wrote the article in question, would they please send me details of their harness configuration, it sounds marketable. Now to get back to the story, all this talk of sensual stimulation tipped the balance, really did the trick, wild horses, etc. etc. need I say more, with the absolute certainty of being brought up before the beak, I think I had better not.

To round off the evening in a more pleasant vein, I asked whether she would like to jump again, to which the answer was a very definite "No Thanks" but I wonder if could have mis-heard the question. So that was that, I mused as we ran down to the parked car hotly pursued by a waiter waving a bill in his hand, they can run faster than that at the Greasy Eater. I reckon, when they gave the old place a facelift they issued the staff with bionics... or was it bi-focals?



Pam at work

If watching "About Anglia" on Thursday nights is your turn on, you will usually see Pam co-presenting the evenings local interesting events with a chap called Graham, and if you fancy, send me a written applications on the back of a twenty-pound note and I'll arrange a personalised wink at the end of the programme, or forty pounds for a wink from Pam. Can't be bad, cheap at half the price.

Before finishing off the article completely, there are a number of people without whose help and booze this little tome would not have been possible. Namely: Animal (of the Muppet Show) for being the biggest laugh since my 'Idiot and the Optician' joke and Pam for agreeing to the article which will probably ruin the rest of her professional career.

CHRIS WALLS.

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To those who missed me over December and January I've been in the States picking up the new gen. So I will have to keep on giving it away. Please ring evenings.

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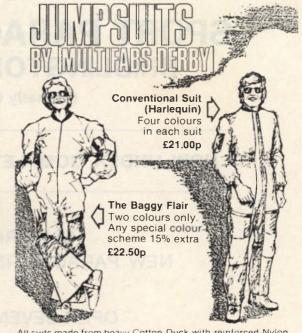
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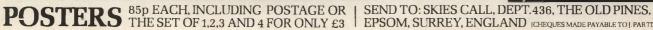
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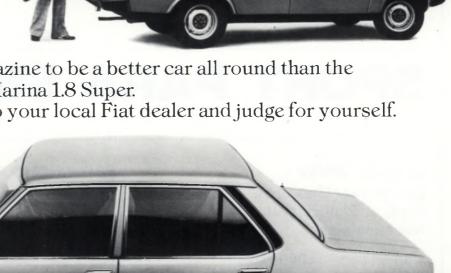
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