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(Cover) Father Christmas (Des Smythe) jumping at  
Thrupton.

(Above) Getting ready in the aircraft on the run in.

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Articles, statements and all other matter printed in SPORT  
PARACHUTIST are correct as far as the Editor and the  
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**Footnote:** All instructors are requested to notify the B.P.A. in writing when they are no longer complying with the Association's instructor status requirements, in order that their names shall be removed from this list.

(P) Panel of Examiners. This list cancels all previous lists of B.P.A. Approved Instructors, and is correct at October 26th, 1965.



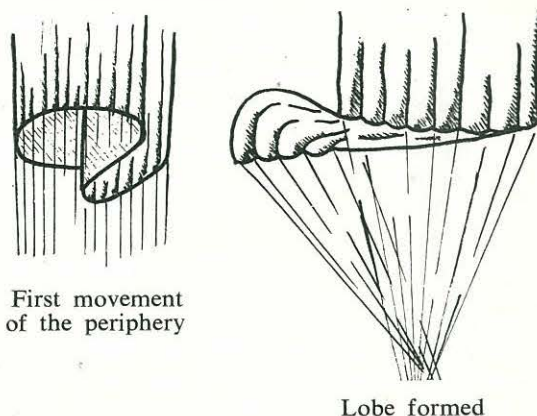
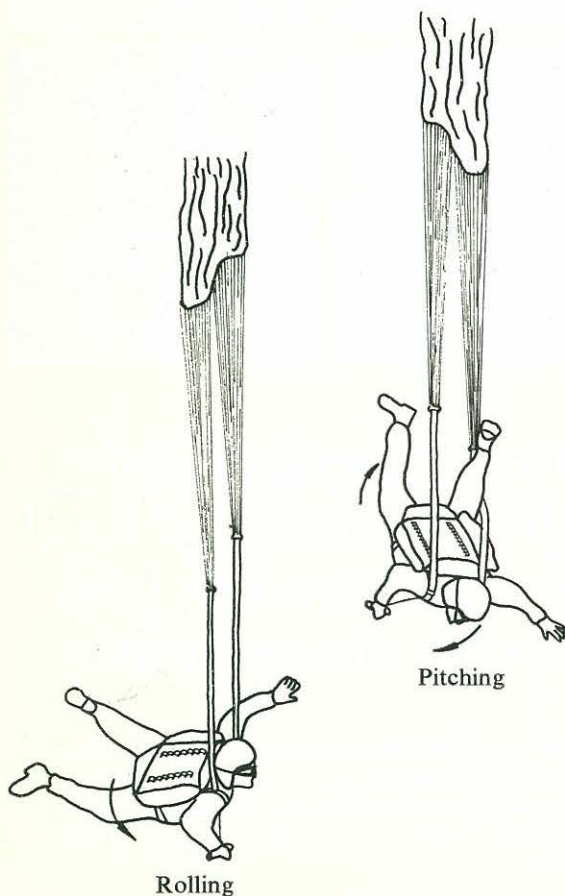
# “B.P.”

J. R. MITCHELL,  
*Chief Designer,*  
G.Q. Parachute Co. Ltd.

parts of the well slotted parachutes of present days, that more malfunctions do not occur. Nevertheless, with a sleeve deployment following a neatly packed assembly, with no chances taken in trying to hasten packing procedure, experience indicates that the incidence of malfunctions with a straight deployment are very few.

Those of you who have witnessed, or experienced, paratroop descents will know that the parachute remains connected to the parachute pack by the apex break tie while the rigging lines and canopy are streaming out and forming a catenary curve in the airstream, so that even if the deployment is perfectly clean there are sideways wind forces pressing on some parts of the canopy. When the apex tie breaks, the elasticity in the parachute causes the canopy to slump a little, and if conditions are favourable the windward parts of the peripheral hem can be blown under a section of the peripheral hem on the leeward side of the canopy.

Very often these motions are small but rapid, so that the only indications that a “B.P.” has been imminent and yet avoided is a minor searing on the “A” panel. If the lobe of the inflated gore has grown at all but is then withdrawn by the inflating parachute, the line of searing may be more intense, having an arched form, and may break into small holes. If this inverted lobe of the canopy really takes control and much of the parachute is pulled through the wrong way, then some quite severe damage can be caused and if the inverted lobe and the rest of the parachute become balanced, the drag of the parachute is greatly reduced and subsequently the rate of descent is high. A full inversion of the canopy is quite possible but the repair work following such a malfunction may be very expensive and economically not worth while. So to go back to the beginning, careful control during the opening of the parachute and in the early phases of deployment are essential if long life for both parachute and parachutist is to be attained.



“I am too careful, it won’t happen to me.” This could be the thought in the mind of the novice who has got through his first short delays and is beginning to enjoy the feeling of the cushioning air and the view of the landscape below shifting slowly as it is approached, with the rising pitch of the rushing air and the rapid shaking of folds in the overalls. It is with persons in such a frame of mind that a slight loss in concentration can cause deviations and lack of control when pulling the ripcord, and can lead to the canopy achieving a “B.P.”.

It is really quite surprising when one considers the random fluttering of a parachute periphery, or other loose

The diagrams illustrate the two main causes of parachute distortion during a deployment after a stabilised descent which can lead to a “B.P.”. If these snags are avoided, then the chance of experiencing this type of malfunction will be very remote indeed. Probably the most difficult one to avoid is the bad alignment of the shoulders, but this will come with practice in keeping the drag of the arms and legs in balance so that a rolling or yawing motion is avoided.

If you want to avoid a “B.P.”, be prepared to practise body control during the last and final phase of the freefall section of flight.



# “TAKING THE MICKEY”

(with apologies to William Hickey)

Some time ago, during a telephone conversation with our worthy editor, David Pierson, the subject turned to ways of making SPORT PARACHUTIST livelier. “Why not have a gossip column,” said I. “Good idea,” said he. “Write it”! That wasn’t quite what I had in mind, as all my previous connections with any journalistic work were from the other side of the camera. To cut a long story short, here is a first attempt at a gossip column which will be for SPORT PARACHUTIST what the Hickey column is for the *Daily Express*. Let’s face it—I’m no William Hickey and this is no *Daily Express*.

*Comings and goings* . . . Des Smythe has left us for better jumping in Australia, and there seems to be quite a bit of movement afoot at Thrupton for some people there to join him. John Meacock, Ken Vos, and John Clark all intend to go to Australia for the Australian National Championships. Johnny Balls is in British Guiana with 3-Para. There are now two office-type birds at the B.P.A. Headquarters. The latest edition is from down under. As I left B.P.A. some weeks ago, I passed the Group Captain on the stairs—he was on his way out to get some cotton wool for his ears, muttering something to the effect, “worse than the Upper Fifth at St. Trinian’s”.

The saying “You are never too old to learn” was made for skydiving. When I was in Chalon at the beginning of the year, I had the honour of seeing the great man himself, Claude Bernard (with over 3,000 jumps), make his first PC descent when he borrowed American Dick Hoyte’s rig, and much to my surprise Monsieur Bernard returned to the packing shed sporting a cut lip. Most of the conversation was in French, but what little I managed to pick up contained such French phrases as “l’overture”, “manger altimetre”. As I said, you are never too old to learn, and I am certain Claude Bernard would be the first to agree with me.

Incidentally, if anyone would like to pass on bits of information they think would be of interest to other members of the B.P.A., my address is 51/53 London Road, Romford, or telephone Romford 44408.

Finally, news of a new club. At least, at the time of writing negotiations for jumping on the airfield at Stapleford Tawney are being completed and we hope by the time this magazine is in print the new club will be under way. We hope to have Terry Crawley as a club chief instructor and the club will be run by a committee yet to be elected on a non-profit-making, co-operative basis. Any general permit holders in the London area are welcome as club members. The airfield is half an hour’s drive from London. We have separate accommodation from the flying club, and with some little effort by the members it should be a first-class club. The name, we hope, will be The Stapleford Tawney Parachute Club. The badge—a Tawney Owl in flight over a canopy.

DAVE WATERMAN



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# .. introducing rip

This is it... my debut as a star... talk about a weight on my shoulders ... quite depressing... the future of everthing dear to me is at stake here matey!



... Won't do my athlete's foot any good you know... Me - a public expose... my innermost secrets blasted into the public eye...intense scrutiny of my every facet. Case of living up to an image now I s'pose.



...that feeling of being watched...constant probing eyes. Some people stop at nothing you know. Continual onslaught of badgering and questioning - what tooth-paste do I use? How long's my retainer?



I mean damn it all, a fella's got to have some relief... some opportunity to enjoy his leisure time without these constant demands being made on his already over-burdened being...



Lets be honest now... search our souls and find out, truthfully... what motivates this sort of thing within us... an insatiable lust for life?... a latent desire to be a do-gooder?... we need to impress our lesser beings?



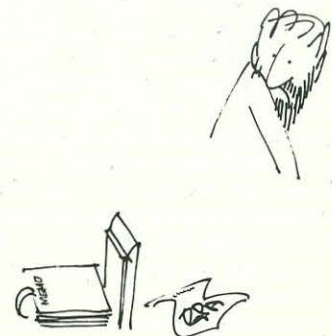
Its really getting out of hand... as if I haven't got enough to do without catering for their every whim... on beck and call, night and day... ever present at a time of crisis!



...what's the use... no good backing out now. This is s'posed to make me feel like I'm a boon to the world... a knight in shining armour or something... give of one's best at all times and all that!



Yes, thats it then!... here we go... over the top. Ah me! the price of stardom.

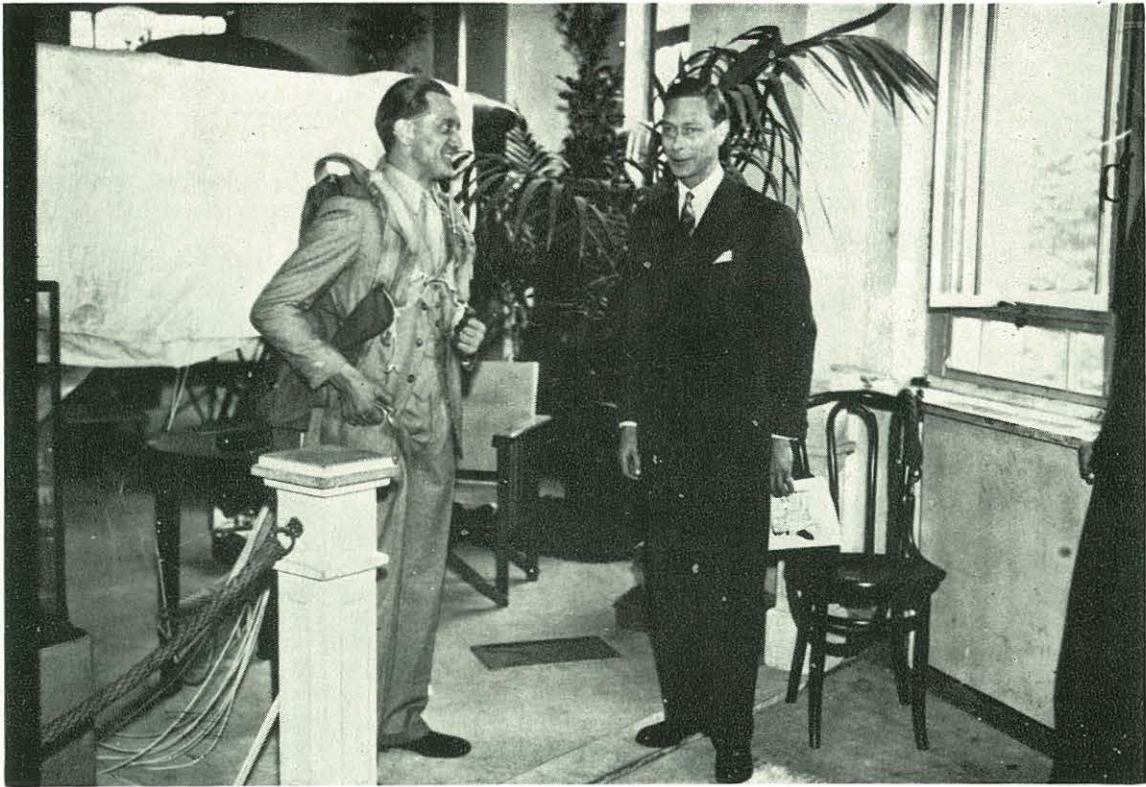


.. see you on page 31



# Parachuting in the 'Thirties

by JOHN COPE



*John Tranum with the Duke of York, later King George VI, at the National Sporting Trophies Exhibition, 1933. Photo: "Radio Times" Hulton Picture Library.*

The first parachute descent I ever saw was made by John Tranum in an air display off Southport beach. He took off in a cabin monoplane with the door shut, climbed to what looked like no more than a thousand feet over the golf course, opened the door and stepped out. His delay was probably two to three seconds, and I have never forgotten the impression it made on me. His parachute was an Irvin 28-foot flat main of white silk which glowed in the late afternoon sun, and he wore white overalls, sheepskin boots, and a white flying helmet. There were no crash helmets available in those days. To keep sand out of his equipment he landed on the golf course, and I later read that a little boy who ran slap into his line of drift got knocked over by a boot, but this I didn't see. It was for me a red-letter day.

There was no Army parachuting at that time, and the annual R.A.F. flying display at Hendon confined its parachuting item to the well-known "pull-offs" from the wing-tip platforms of Vickers Vimy or Virginia bombers. I think permission to free-fall in the R.A.F. in those days was very exceptional, and parachuting in any form was never allowed in the sort of winds we accept today. I don't think I'm dreaming when I say that not only had an ambulance to be in attendance, but also a doctor, when parachuting was in progress. The static line as we know it in training and military descents had not been developed, though something similar was used in supply dropping.

I once applied to jump on a course at Manston, at that time a grass field, but after a week of nothing but packing we were told that the wing-platform Virginias could not be flown from Henlow especially for us. So a couple of us contented ourselves by releasing parachutes on the ground one very windy afternoon. I was not prepared for what happened next, but you can guess. Had it not been for the timely intervention of a couple of airmen on bicycles I'd have been in the North Sea still going at a fair rate of knots.

The R.A.F. training equipment consisted of a standard main back-pack, and a reserve pack worn somehow on the left front of the harness and containing a canopy only 22 feet in diameter. I suppose it would have brought you back alive! (John Tranum's reserve was not this one. He had his harness modified to take the standard Service 24-foot clip-on chest type, like ours.)

In those days there was no organised sport parachuting, certainly no instruction, and very few civilian parachutists. I doubt if you would have needed two hands to count them, and in general they consisted of the manufacturers' demonstrators and half a dozen show jumpers who appeared at touring air displays of the sort magnificently kept alive today by the Tiger Club.

A popular parachute with civilians at that time was the Russell Lobe. Its 28-foot canopy produced, when inflated, a turned-under periphery and a nearly flat top like a mushroom. I never understood how this worked,



until Jim Basnett explained to me the probable internal rigging and two or four central lines running from lift-webs to apex. There was no auxiliary, and I am almost certain no apex vent, though this seems very unlikely. The descent was so steady that it was with this equipment that I first saw a parachutist make a stand-up landing. His name was Al Harris, and he jumped for Sir Alan Cobham, and I have since heard that he used his fees to finance his training for a commercial pilot's licence. I believe it was on his canopy that I first saw printed in large letters an advertisement for a well-known brand of stout.

The official opening of Liverpool Airport at Speke took place on the afternoon of July 1st, 1933, and I was there. An air display by the R.A.F., with brilliant flying but no parachuting, was followed by a very good civilian show, during which I remember seeing someone loop a D.H. Dragon. To me, however, the high spot of the day was the parachute spot-landing competition, and the following is an extract from the programme note:

" 16.05. Event No. 8.

#### PARACHUTE COMPETITION

Prize £25.

Presented by the Corporation of Liverpool.

In this contest the parachutist will be taken to a given height, and each will decide when to leave the aircraft. The competitor will endeavour to land on or as near as he can to the aerodrome circle marked LIVERPOOL. The parachutist who lands nearest the circle centre will be adjudged the winner.

<i>Name of Competitor</i>	<i>Type of Parachute</i>
1. Mr. John Trantum	Irvin
2. Mr. F. George	Russell-Lobe
3. Mr. H. G. de Greeuw	do.
4. Mr. F. L. Marsland	do.
5. Mr. R. C. Quilter	G. Q. Quilter
and others	

The three types of parachute to be used in this event have all proved by constant practice to give satisfactory results. The Irvin 'chute is now the standard equipment of the R.A.F. All Service pilots carry them and they have saved the lives of over 100 Officers and Airmen since their compulsory introduction four years ago. They have saved over 700 lives all over the world since their introduction. The Russell-Lobe is a British parachute, as is the G.Q., which is the cheapest and most simple type. Mr. Quilter, the designer, will take part personally in the competition.

Mr. John Trantum, the world's most famous parachutist, who has more 'live drops' to his credit than any other parachutist, recently established a world record by dropping from a height of 21,000 feet over Salisbury Plain. This was a 'delayed drop'. He did not pull the release cord until he had fallen 17,500 feet. The speed of the fall was 144 m.p.h. slowing down to 123 m.p.h. as he neared the ground. It took 1 min. 20 sec. to fall 17,500 feet.

Parachuting is a safe pursuit, but requires practice to ensure accuracy. Calculations of wind strength, wind direction, height of aircraft and speed, as well as size of landing area and nature of approaches, have all to be taken into consideration. Parachutists can guide the 'chute to some extent by hauling on the shroud lines. Some competitors may be observed doing this to check their drift. The winner may, therefore, be taken to have worked out his calculations more accurately and to have shown more judgement than his fellow-competitors."



John Trantum at Heston, testing an exit, March 15th, 1933.  
Photo: "Radio Times" Hulton Picture Library.

That's a quotation from a programme of 30 years ago. Not much different today, are they? I like that bit about the parachutes giving "satisfactory results".

As it turned out, only two competitors took part in this contest, and as they both used Russell parachutes I imagine that Mr. Quilter, as he then was, didn't manage to get to the show. I do not remember which of the three names on the programme competed, and I suspect that the winner was not the drifter! John Trantum did not take part, but was on the programme later to do a free fall from 5,000 feet. Somehow this item got cancelled, and the Russell parachutists jumped again to keep the show going. I really got my money's worth.

The deployment of a Russell-Lobe always looked to me a bit "sticky", and I believe now that an extractor would have helped. It is easy to be wise after the event, and the event I now have in mind was the following.

In one of Sir Alan Cobham's air displays he had an enormous two-bay twin-engine passenger biplane called a Handley-Page W.8. The span of this aeroplane must have been fully as much as a Vickers Vimy, and it was accordingly fitted with wing-platforms suitable for "pull-off" parachuting. Two parachutists took part; a splendid chap called Ivor Price, and the first lady parachutist I ever saw, Naomi Heron-Maxwell. She was an expert glider pilot and instructor, and a very nice girl. Together they flew as a team, one on each wing-tip, for the "pull-off" parachute descent, and I think he did the spotting. They both wore Russell-Lobe back packs with no reserves, and Ivor





*John Tranum at Hatfield*

Price once confirmed to me that, when free-falling that parachute, the canopy was often slow to deploy. Nevertheless, one afternoon it happened that the giant aeroplane was out of service, but the crowd was big, and you know how it is at air displays! It was decided that the two parachutists should fly in formation across the field in Tiger Months (or similar two-seat biplanes) and do simultaneous "clear-and-pull" exits. Poor Naomi watched her partner streak into the ground trailing the proverbial bundle of laundry, and that was that. Nobody knew how it happened, and I am glad to say that this was one of the occasions when I was not there. The Russell-Lobe was not used again in the air displays, but I have often wondered if we have really heard the last of this interesting design.

Naomi Heron-Maxwell was sent off to G.Q.'s to learn to pack that equipment, and armed with this and a reserve she was allowed to re-join the "circus". On her first free fall with the new outfit, however, she succeeded in missing the rip-cord handle, and her very low opening was not appreciated by the management. The crowd had kittens all over the place, and I think Naomi got "suspended", or at least restricted to "pull-offs". Her missing of the rip-cord had been due, of course, to the unfamiliar presence of a reserve. So look before you pull!

The first attempt I ever saw at a free-fall smoke trail was made by John Tranum with a paper bag of flour in his arms. He dropped over Hatfield (all grass) from 3,000 feet, and opened unexpectedly high. I later discovered that this was because a stream of flour had covered his goggles and obscured the stop-watch which he always carried in free fall, fixed in the palm of his left glove. There were no deployment sleeves, and in the

opening shock of his long delay over Salisbury Plain (mentioned in the Speke programme note) he crushed the stop-watch glass.

A film was made of this record delay, and it was a "camera rehearsal" of it at Hatfield that showed me the longest free fall I ever witnessed in the "Thirties". Today it would be nothing unusual, but in those days I held my breath in spell-bound amazement. Tranum climbed to 4,000 feet in a Hawker Hart, with the camera man in formation in a Bristol Fighter. For 15 seconds I was hypnotised. A stable position was unknown at that time, and he simply plummeted like a rag doll with an eye on the watch in his hand. The aircraft altimeter of today was not then in use, the most sensitive instrument giving a reading only to the nearest 1,000 feet, and quite unsuitable for parachuting.

I believe that some of the shots of Tranum's record jump were actually filmed at Hatfield that afternoon and later spliced into the picture. The camera ran at normal speed, and in the final film there was none of that wonderful floating impression that we get with modern high-speed cameras. Instead we had a finished effect immensely more dramatic, for a tumbling and somersaulting little figure simply hurtled headlong through the sky at full speed. So crafty was the editing that the shots from all angles were strung together to give a final sequence running for his full freefall time of 80 seconds, with piles of cumulus cloud rushing by from all sides. The thousands of feet were counted off by great white transparent numbers bursting on to the screen in the foreground, while behind them, thundering towards the earth, was a small spinning figure, stop-watch in hand, ticking off the seconds. It was a very exciting film. I wonder where it is?

*He just cleared the hedge*





# August Bank Holiday Contest

On the last week-end of August the B.P.A. were the guests of the Army Parachute Association's Centre at Netheravon, and some 20 competitors enjoyed the genial hospitality and first-rate organisation.

The three events were:

1. Individual Accuracy from 3,300 ft.
2. Three-man Team Accuracy from 3,300 ft.
3. A combined baton-pass and hit-and-run event from 7,000 ft.

The aircraft in use was the centre's Rapide "Siegfried", flown by Dixie Dean and Lieut.-Cdr. Banfield. Major Clark and Colonel Wilson were joint directors, and Mrs. Clark had organised the catering superbly. If we didn't go home with many jumps under our belts, there were some very good meals there instead. The permanent staff of the centre gave up their Bank Holiday week-end, and Sgt. Major Reid, Sgt. Griffiths, and Cpl. Acraman undertook the judging, with Sgt. Rees on the manifest duties. (Sgt. Major Don Hughes left during the week-end for the U.S.A.) As B.P.A. Liaison Officer, Ken Vos put in three days of hard work that earned the gratitude of both the competitors and the other officials, and John Meacock was aircraft judge.

The standard of jumping was mixed, and high winds of shifting direction did not assist matters. Lee Allison made a nice approach in the Individual Accuracy to win with a distance of  $14\frac{1}{2}$  ft., followed by Helen Flambert with just over 20 ft. Messrs. Silber, Parker-Tomkinson and Waterman took the Team Accuracy award in tricky wind conditions when a stiff breeze was dog-legging at times through 90 degrees. The most stylish action of the meeting came from Helen Flambert and Des Smyth in the Baton-pass event from 7,000 ft. They closed well within 10 seconds, and from the Telemeters it appeared that a pass was achieved. However, they came in again to finally pass the baton at about the 15-second mark. This was followed by a good separation, and landings on the gravel that only needed a few strides to the centre disc.

For those of us who had enjoyed the hospitality of the Irish meets of a few years ago it was a pleasure to see a three-man contingent from Dublin. They didn't go away empty handed, as Tony Coyne collected the novelty "Spot" prize, donated by Rothmans cigarettes. We hope you made it through the Customs, Tony!

One thing that did arise from this contest was the question of the suitability of including an event such as a baton pass in a meeting intended for ordinary club jumpers. It does seem that once a jumper of intermediate experience enters a competitive event for the first time, a lot of safe parachuting technique goes to the wall, due, it would seem, to over-concentration on the event and not enough on safety.

The following *all* happened in a contest that only comprised some 60 to 70 descents.

1. A parachutist leaving the aircraft at 7,000 ft. was so much out of control for the first 15 seconds and making so little effort to recover, that both Telemeter observers thought he was unconscious. The jumper in question had gone through a freefall course at Chalon, and was considered to be something of an air-to-air cameraman. The explanation given was that instability requiring really vigorous counter-measures had not been encountered

before. Poor basic training, inexplicable lapse or over-concentration on an attempted baton pass?

2. The most spectacular breach of safety was a mid-air collision that took place some seconds after opening from a 7,000 ft. descent. The second jumper in a baton-pass event took separating action after failing to catch his companion, but the distance apart when the 'chutes deployed was only about 30 yards. Nevertheless, this would have been enough if jumper number one, who was now suspended some 20 ft. higher, had followed the basic safety rule of "all round observation". Unfortunately his concentration was directed solely on the target, and he turned straight into his companion's canopy.

In the resultant tangle both canopies collapsed and the rate of descent assumed a velocity that would have taken both jumpers into the ground within 25 to 30 seconds. If there was a redeeming feature of this unfortunate episode, it was the commendable promptness and coolness with which both parachutists deployed their reserves, carefully feeding them clear of the collapsed and streaming mains. They made safe, if heavy, landings under 24-ft. canopies, still linked together with their torn and tangled T.U.s.

3. As a stick of competitors was emplaning, they were briefed to give particular attention to the target cross, as there was a likelihood of it being withdrawn because of an increasing wind. It was in fact taken in as the last man started his run-in, but he carried right on and jumped. Reason: concentrating on exit point to the exclusion of everything else.

4. No meeting would be complete without that do-or-die character who does a down-wind landing with full drive in a high wind well outside the scoring circle and the gravel. In this particular case the wind had started to gust over limits, the target was being pulled in and the judges were energetically waving him off. The resulting crunch when the parachutist connected in a cloud of earth and stones may have been one of the meeting's highlights, but it visibly aged the Contest Director.

Netheravon is without doubt one of the finest centres for contests that have ever been made available to the B.P.A. It has accommodation, eating facilities, resident aircraft, and the invaluable assistance of trained staff. Those of us who attended this first meeting hope that it will be the forerunner of many more, and the Army Parachute Association are keen to extend the scope of these open contests. Before the next Netheravon "Open" can be arranged, three things are needed.

In the first place we require suggestions for competitive events for intermediate-standard parachutists. Baton-pass events are obviously a mistake, and even a team accuracy contest can get dangerous when hastily assembled teams fail to make a good "stack" and arrive over the target in a bunch. A possible encouragement to safer jumping would be to penalise a team that touched down in less than three-second intervals. Please let us have your ideas (c/o The Editor) on what you would consider to be a good competitive programme.

Secondly, the organisers would be greatly assisted if they had a B.P.A. category rating for all competitors signed by their instructors. They could then regulate the entries for each event according to its complexity and the weather conditions.

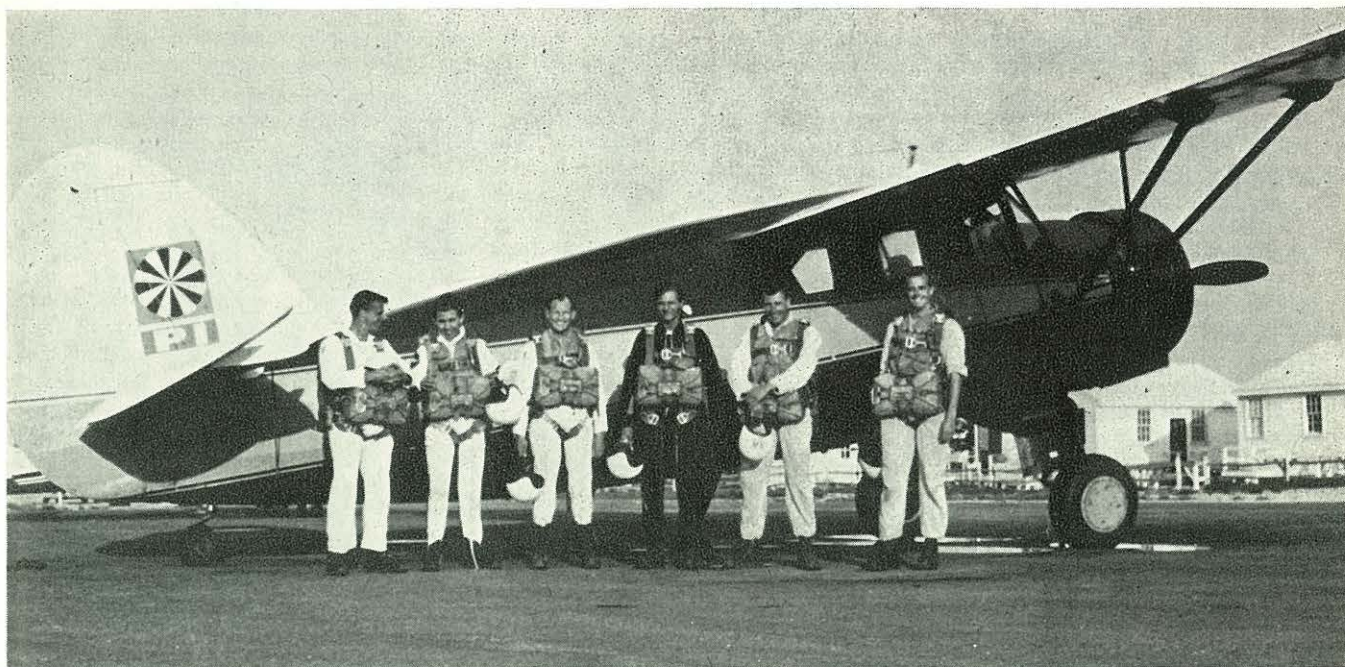
And lastly, we do need a few more volunteers to help organise these week-ends. Ken Vos operated most efficiently as a one-man band on much of the administration that lay outside of the Army Centre's sphere of activity, but he really could do with some help next time.

P. M. LANG



# A BRITISH "TEAM" IN THE U.S.A.

by Lawrie St. John



*The British "Team" prior to jumping into Lake Carasaljo for Independence Day celebrations. Background in Parachutes Incorporated jump plane, a Nordine Norseman (nine jumpers). Left to right: Lee Guilfoyle, John Cole, John Hogg, Andy Porter, Lawrie St. John, John Lowe.*

After withstanding the usual comments from the B.O.A.C. staff and passengers in the Departure Bay, we eventually boarded our Super VC-10 at London Airport. Nonchalantly wisecracking back at our fellow-passengers, we fastened our safety belts and somehow managed to get our legs, as well as our mains and reserves, under the seats in front. Jump boots were worn to cut down our baggage weight.

This aircraft really does climb on take-off and before we knew it we were steaming along at 35,000 ft. It was so quiet that we could hear the clinking of whisky glasses at the front of the aircraft. (We were at the rear, and being parachutists you should know why!)

Seven hours later we were landing at Kennedy Airport and the temperature was around 90 deg. F. (we left London at 64 deg. F.), our mains and reserves were really beginning to feel heavy now, and the comments not so funny.

We were fortunate in having an old friend meet us there, namely Mary Ann Markson, who works for B.O.A.C. and whom I met there last year at Lakewood Sport Parachute Centre, New Jersey. She got us a cab and we made our way to her house, where we had a very welcome shower. In the evening we were treated to a barbecue with the family in their back garden, and met John Lowe and Andy Porter, both members of our Club, who are working in New York. After many beers and reminiscences we got to bed, tired, but hoping the night would go quickly, for tomorrow we were going down to Lakewood to start jumping.

Mary Ann kindly drove us both down there, taking a day off work to do just that (anybody proposing to visit the U.S. will find them extremely generous and happy people), and we were met by Lee Guilfoyle (Manager), and the rest of the staff, Doug Angel, Skip Doolittle, Chris Lowry, Bobby Dreit and Linde Chapman.

The next day was beautiful, hardly any wind and a

clear blue sky. Our first jump was from Lakewood's Cessna 180. John and myself went up to 13,500 ft. with a good friend, Bill Mehr (D.978). We did a three non-stop hook-up and all landed around the target in Lakewood's soft silvery sand.

We did three more jumps that day, two Cessna's and two Norseman, the last one from 13,000 ft. with Bill Ottley, P.C.A. Director and also Director of the World Fair in New York. We were entertained on the way up by Bill reading from a "Bugs Bunny" comic which had been given to him by the pilot, Skip, who apparently thought he was getting bored by the climb. Another three hook-up.

On the Friday we were joined by John Cole from England, who had to leave two days later than us for business reasons.

The first week-end saw a lot of relative work and lots of height, our highest being 14,700 ft. in the Norseman (five men).

July 4th—Independence Day—we were scheduled to do a water jump in the town of Lakewood itself, the DZ being Lake Carasaljo, but as local bylaws state that no carnivals can take place on a Sunday we had to put it off until Tuesday, July 6th. There is only one lift on this display and we were very honoured that all the Englishmen had been invited to do it, as there is great competition among American jumpers to take part. There were five Englishmen now (all from the British Parachute Club), we three being joined by John Lowe and Andy Porter, and Lee Guilfoyle made up the six. We planned to do three passes at 3,200 ft. and land in the Lake about 30 yards from the crowd on the shore.

None of us did any spotting, we all left it to Skip and, all we did was jump when he gave us a cut. He is himself a great jumper and very accurate with it.

First out were John Cole and Andy Porter, who both landed right on target. Next was John Hogg and John



Lowe. Unfortunately John Hogg had borrowed a main for the occasion which had a loose ripcord pocket. Out he went, all smiles and looking at the camera we had taken up with us. If he'd looked down he wouldn't have smiled, because his ripcord had jumped out and gone under his arm. Anyway, 12 seconds later out shoots a reserve canopy and by much manipulation of lines John made the lake O.K. When we all got down we were surrounded by kids, all wanting to touch an Englishman and get autographs. The local newspaper reporters were also much in evidence, this being Lakewood's big day of the year.

John Lowe had taken his two weeks' vacation to coincide with our trip, so on the following Friday we made our way up to Orange, Massachusetts, in the Plymouth duty station-wagon he had hired for us all. This was some car, automatic gearchange, motorised windows, air conditioning, the lot! With all the seats up it took 11 people. Very definitely our status symbol!

On the way north we stopped at the Pioneer Parachute Company in Manchester, Connecticut, and were shown around by Bill Jolly.

Pioneer's factory, to an outsider, looks all confusion, with nylon spread over benches and machines. Nearly all the machining is done on a piecework basis and it's a real eye-opener to see the speed that the women stick the panels together. But when we saw the finished article coming off the benches it was obvious that this was a highly organised concern. Bill Jolly also showed us the final packing operations on aircraft brake parachutes. The "pack" is closed by a powerful press and it left one wondering how on earth they ever worked, they are compressed so tight that the "packs" felt as hard as wood.

We were also shown the Para-Commander being made, and some films Bill had taken of pilot chute hesitations, which were really fantastic.

After a great deal of P.C. chat we finally said our goodbyes and made for Orange. We slept very well that night, having driven all day to get there.

Saturday dawned another beautiful day and we made four jumps. Our pilot on the first one was Anne Batterson in Cessna 180. It appears that Anne doesn't jump much now and is concentrating on flying after having got her commercial licence. For experience she worked the summer at P.I. as jump pilot.

The day ended with a blast into "The Inn" from the Norseman, with our stick being spotted by Lew Sanborn.

That night at The Inn was great, with loads of "jump talk" and gallons of beer and it was four very weary parachutists who finally dragged themselves upstairs to bed.

The third lift of the day was also eventful, in that we were almost knocked out of the sky by a Boeing 707. It came so close that it had our pilot really worried. The Air Traffic Regulations in the U.S. are not so strict as over here. The system seems to be that the airlines know there is parachuting going on in these places and if they want to they can go around or, if not, they just go straight through, regardless of the fact that nine men may be hurtling down in their path. On one occasion at Lakewood a Dakota almost hit us as we were opening our chutes at 2,500 ft. He might well have done just that if he hadn't seen the flash of our sleeves coming off, he was literally that close.

Sunday was a day of anticipation, as we had all heard that a super "jumper's dream" aircraft was coming to Orange to demonstrate its capabilities to P.I. in the hopes that the company would buy one for jumping.



*John Hogg followed by John Lowe above Lake Carasalj*

At mid-day it arrived, a Turbo-Porter. It sounded for all the world like a Meteor jet, and when it landed it stopped within three lengths of itself and then went backwards.

This really cracked everybody up and it was no small coincidence that all the English were on the first lift. It took eight men and climbed at a fantastic rate; its time for a 12,000-ft. lift, up and down, was 13—yes, 13—minutes. Four 60-second delays in an hour, not bad, eh? It took 10 seconds from the word "cut" to slow down to 50 m.p.h. for the exit. The only thing we didn't like was the very strong smell of fans from the engine. The aircraft, incidentally, was always on the ground before the jumpers had landed. All this could add up to cheaper jumping, let's hope the idea catches on.

On the Monday evening we made the last of our three jumps and afterwards went for a swim in the beautiful Lake Matawa, which lies just behind the inn. An altogether fitting finish to a great week-end. We could not have had a better week-end anywhere and our thanks must go out to Lew Sanborn, Nate Pond and the staff at Orange for giving us a cracking time, also to Jacques Istel for introducing us to the Turbo-Porter.

The following Thursday we jumped into a small private field at Applegarth, which is the home of the Horizon P.C., a small club of which membership is by invitation only. Notable among its members are Bill Ottley, Dick Lewis, Lennis Potts and Jim Arender.

We—John Hogg, John Cole and myself—jumped in at 7,200 ft. from Lakewood's Cessna 180 and did a good three non-stop hook-up, so we didn't let England down. We were well received and all did a second jump there from Bill Ottley's own Cessna 182, with a Snokomish door fitted. This is just great, you climb with the door shut and when the pilot says you're on jump run you push the door out and up and it's then fully locked in the "up" position. After the jumpers have left, the pilot pulls the door down and everything is as per normal.

We finished our stay at Lakewood with a barbecue on the sandy shore of a local lake, eating corn-on-the-cob (steaming hot and rolled in butter), steaks and baked potatoes, we sang our songs and they theirs, and to round it off we all dived into the lake and had great fun. Lakewood was left with great regret.





*John Hogg cheerfully blasting off for a water jump, except this one was on a reserve — note the main ripcord free of its housing.*

Sunday night we made our way back to New York and slept exhaustedly until mid-morning. During the day we walked round town, went up the Empire State Building and did all the things tourists do.

Our last evening was spent being shown the World Fair by Bill Ottley. We had V.I.P. treatment and were personally driven around the Fair by Bill. One evening wasn't nearly enough to see it all but Bill had sorted out the highlights and all the stands were free to us. We left there in high "spirits" and retired to Bill's apartment, where, over many gin and tonics we tried, in vain, to convince a friend of Bill's that his job was far more dangerous than jumping (he was a human cannonball on one of the stands at the Fair). It seemed that all previous "cannonballs" had been killed at the game, so we couldn't quite see his logic, but then after an evening like we had just had, it was a wonder we could see anything at all. Bill reckons he might just be able to get over here in 1966. If anybody reading this gets the opportunity of meeting him they should, for he is a wonderful character with a great sense of humour.

The next day it was two rather sad parachutists who boarded the Super VC-10 for England, for after the fun we had had for the last three weeks the thought of work was just too horrible to contemplate. We were feeling pretty exhausted and slept for four or five hours on the plane, so it didn't seem too long before we were descending through eight-eighths cloud cover to land at London Airport and sink our first pints of warm English beer.

In conclusion, I can only say that if any one of you gets the chance to go to the U.S., take it, it's an experience you'll remember all your life. Nine of our club members have been now and I know that each one will get back there if it is at all possible.

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## MID AIR PARALYSIS

by Dr. L. R. C. Haward, *Aeromedical International*

In the last issue of *SPORT PARACHUTIST*, Edward Kimball, in a veritable cornucopia of distilled wisdom, drew attention to the psychology of the parachutist as meriting more concern on the part of instructors. Later in the same issue, G. J. Eastley provided us with a thoughtful commentary on safety matters and mentioned in passing that human reaction to stress is an unknown quantity. While this is true, it is to some extent a predictable quality, and this is one reason why we at *Aeromedical International* are carrying out a preliminary questionnaire survey which Mr. Green of the British Sky-diving Club has kindly organised for us. Parachuting is still a young enough activity for the trick cyclists not to have got their clutches on us yet, and no doubt in time we shall hear much of the Freudian death wish, and the unconscious meaning behind gyrations in space. Meanwhile the psychologist, as a behavioural scientist, can make a useful contribution to the sport by measuring relevant factors in our make-up and predicting possible consequences.

Paralysis by fear is not a new phenomenon. It probably occurred when the first rabbit met the first stoat, and has continued through all levels of nature ever since mammals evolved from lower life. To understand it, we must appreciate that the motor centre of the brain which controls every item of our behaviour is itself controlled from two other areas, dealing with our emotions and our intellectual functions, respectively. Control is to some extent mutually exclusive; that is, we tend to act rationally or emotionally, but never both at the same time. This is why we slam the unoffending door, kick the inoffensive cat, and very often say things we don't really mean and usually regret later. Emotions thus interfere with reason. Of our two great negative emotions, rage is the most common, but fear has the most profound effect.

I was recently carrying out an inflight assessment of a pilot flying for the first time since a crash 12 months ago. To measure his emotional responses, he was hooked up to a recorder which monitored a variety of physiological reactions which indicate the level of emotional arousal. (The lie-detector is based on the same principle.) His previous accident was concerned with the undercarriage, and during the let-down when he was coming to the point of selecting "undercarriage down", his physiological reactions suddenly took every needle off its dial and he froze at the controls. That I am writing this now is a testimony of the effect of a good rabbit-punch. The point of anecdote is that if fear paralysis can occur by associating a memory of 12 months ago, how much more potent is the fear produced by the present situation!

Occasionally I see an accident report on a parachutist when the rip-cord has not been operated, either on the main pack or on the reserve when the main canopy has failed to deploy. Have these been cases of fear paralysis? We shall never know, but as a working hypothesis I believe it is a sound case, since it provides a constructive approach to the problem. Quite clearly, if the student is paralysed by fear all knowledge of correct procedure will be quite ineffective. While it is quite unscientific to pigeon-hole people into categories, three main classes of people with respect to emotional reactions can be distinguished. There are those who find it easy to express emotion. They let off steam quickly and feel all the better for it. These people are characterised by their low physiological responses and the speed with which their bodily

processes settle down to normal after arousal. These are generally extroverted social types and are unlikely to suffer fear paralysis. At the other extreme are those individuals with rigid behavioural controls of the stiff upper lip type, who refrain from betraying emotion and consequently stay with bottled-up emotions over a long period. They are too civilised for their own good, and if society benefits from their excellent control, their body pays the price in terms of stomach ulcers, high blood pressure and the like.

Between the two groups described above lie the moderates, those who react physiologically whenever their emotions are aroused, who control the outward expression of emotion, but in whom the body processes quickly learn to adapt to a repeated situation so that they eventually reach a stage of minimal arousal as a function of experience. This classification has practical application in the selection and training of parachutists. The first group need cause us little concern as regards fear paralysis—on the contrary their big danger is lack of fear and ensuing over-confidence. The second present a decided risk to any club, and special care is necessary in the early stages before a decision is reached as to whether a free fall should ever be permitted. For the intermediate group, the secret of success is likely to lie in the prolongation of the static line training until sufficient experience has accumulated to limit the activity of the natural fear response.

The assessment of these types in respect of their psychophysiology is not an easy task. It requires expensive equipment beyond the present resources of any club and an experienced psychophysiologicalist to interpret the results. We are experimenting at the moment with a portable recording pack which we have used on Navy pilots during ejection procedures, and if this proves successful, it may be possible for candidates to have such a test at relatively little expense. Meanwhile, a more practicable approach is open to us. These three types of response I have mentioned are basic inborn characteristics which determine in part the type of personality which develops round them. The correlation between conventional personality tests and psychophysiological patterns is a positive one, and as a first step it may be possible to use a simple test as a preliminary screen to allocate the candidate to the group to which he probably belongs. At the present stage we can speak in terms of probability only, but it should be noted that this is a fail-safe technique. That is, if the screening is in error, it fails on the safe side. The man subject to fear paralysis allocated incorrectly to the "emotion-out" group would have had the same training and preparation as if no selection had taken place, since training standards must always move up rather than down; on the other hand, the extrovert incorrectly allocated to the opposite category would merely have more static-line practice than he needed, to his ultimate benefit.

This is the thinking behind the questionnaires being tried out at the British Sky-diving Club and which have been placed before the B.P.A. From a careful statistical analysis of the results—provided enough forms are returned to make this valid—we shall be in a position to determine whether or not such a screening is feasible by this method. In a later issue of this journal we shall be reporting our findings. Meanwhile if any members or their non-B.P.A. parachuting acquaintances (tyro or instructor alike) have not already completed a form for us, copies can be obtained from B.P.A. Headquarters. The forms may be returned anonymously although all information provided will of course be treated in full confidence.



# CLUB NEWS

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*Left to right: Tom Dickson, Una Barbour, John Hardie,  
of the Scottish Parachute Club.*

Photo by courtesy of Border Press Agency



## THE SCOTTISH PARACHUTE CLUB IN 1965

The club's sixth year of operations is now nearing a close. The current season has been a notable one on three counts, despite the early setbacks due to bad weather.

First, the new DZ at Glenrothes has had its baptism of fire. It is not an easy airfield to operate from, because it has no facilities of any kind, and an aircraft has to be flown in from Edinburgh or elsewhere, with the attendant positioning charge inflating the cost of the jumps.

There are only seven aircraft in Scotland which can be used for parachuting and of these only three are intermittently available. We started the season using Group Captain Tulloch's Rapide, GALAX, but found it too expensive to operate with the number of parachutists available. Since the Championships we have been using the Edinburgh Flying Club Terrier, GASOI, most ably piloted by Wing Commander Jock Dalgleish. This is a busy club aircraft and can only be hired fortnightly for three hours on a Saturday afternoon or Sunday morning. With a current hard core of 12 to 15 members, out of the total of 40, we have too few people to operate a large aircraft economically, but there will soon be too many for the Terrier to handle effectively. However, the situation may be alleviated if the E.F.C. acquire a Cessna 175, as they hope to do.

The DZ is long on the east-west axis but narrow from north to south and flanked by cornfields. Some beginners have gone, or have been led, astray from time to time, but the local farmer, Mr. H. McLaren, is very understanding about these occasional lapses. As it happened, the first day he came to see us it was to warn off some small boys who had been using his fields as a short cut to the airfield. This having been done, he came and offered us the use of a small house in his farm steading. This is now the club house. It has been painted in various lurid shades and once electricity and water have been laid on it will become a going concern.

One quiet evening in June the crack of a breaking fibula disturbed the air as the best equipped member of the club descended under his lopo, in his French boots, upon an ugly boulder at the edge of the field. Apart from this unfortunate incident, nothing of "news value" has occurred.

Two-thirds of the new members are coming from the 15th Parachute Regt. and 300 Para. Engineers T.A. in Glasgow and Edinburgh, in whose halls we train every Monday evening. The remainder of the beginners are civilian, from the Scottish Gliding Union, the E.F.C., etc. The basic training courses run six to seven weeks and B.P.A. membership is compulsory.

The second major feature of the season was the first Scottish International Championships at Arbroath in July. This event was fully covered in the last issue of the magazine, so suffice to say that we lost money but created a lot of goodwill and hope to have another next year, at Arbroath if possible, failing which, in a modified form at Glenrothes.

The final highlight of 1965 was the dining out of the "Doc", Dr. Charles A. Robertson, the founder of the club, on October 16th. Doc has upped hooks and is emigrating to Pictou, Nova Scotia. At the club A.G.M. on the Saturday afternoon he was created the first Life Member of the club, and later, after the dinner and presentation, there was a concerted but vain attempt on the part of the lads to bring this new life membership to an untimely close by giving its recipient alcoholic poisoning.

They were hoist with their own petard, as anyone who knows the Doc's drinking capacity will understand. It was a riot.

The presentation marked our very sincere appreciation of Doc's long and dedicated service to the club and to British parachuting. He was given Ray Darby's book, *Space Age Sport—Skydiving*, a B.P.A. scarf and badge and, as the *pièce de resistance*, an inscribed penholder, copper on a mahogany base produced by Pentland Copper Craft, featuring four figures in free fall with the names of the DZs used by the club below, and beneath the names the signatures of the office-bearers.

At the A.G.M. the new office-bearers were elected: Tom Dickson as Chairman, George McEwan as Secretary, and Mac Fraser as Treasurer. A farewell was said also to Tom Lecki, the last of the parachuting sailors from the U.S.S. *Hunley*, who is off round the world on an aircraft carrier, with a Jim Beam Bourbon hangover that would have crippled a 20-stone Viking.

It is unlikely that we shall be running summer courses next season, preferring to train on a continuous basis on week nights. Glenrothes will continue to serve as the DZ. Visitors are welcome and are advised to write or phone one of the office-bearers to find out when jumping is on. Do come and see us—our haggises (haggi?) are tender (our women too) and whisky flows in the burns!

### ½ d. GREEN

The most important news from this club is the recent acquisition of a Cessna 175. Although the Jackaroo, known to many jumpers as "Good Old Pam", remained faithful, the comforts of the Cessna and the reduction in jump fees make it favourite.

The owner and pilot of the aircraft is a parachutist himself, Mike Hennesey. All the club members using the aircraft have the added luxury of listening to the Light Programme on the run-in, a great calming influence on those with butterflies, until one is reminded that the pilot also uses the light programme as his main navigational aid!

British Sky-Diving appears to have gained the goodwill of the local residents, who rarely even raise an eyebrow at our strange "goings-on". A team was invited to jump into lunch at a local farmhouse by the farmer's glamorous daughter. There were a few club members who wished them a "bum spot" into the duckpond. Among the social functions was a barbecue, especially remembered because of the rain. Ever tried roasting a chicken in a thunderstorm? However, it was adjourned to the packing hall and a very enjoyable dance was held.

The most recent disaster was the Spot Landing Competition held during the week ending October 23rd/24th. The local fog completely wiped out any possibility of holding any sort of competitive jumping until most of the visitors had left for home. The patience of the locals was rewarded, though, because the fog lifted in the late afternoon and a small private competition was held, the winner being Dave Savage (N.L.P.C.), here being congratulated by the farmer's daughter! The disappointment jump-wise was offset by a successful dance on Saturday evening, held in the new ballroom at the Flying Club.

We are very pleased to be able to keep Mike West as our resident instructor permanently at the airfield through the winter months and we hope that all parachutists will take full advantage of the facilities British Sky-Diving offers, i.e., Cessna 175 and accommodation.

The bums at Halfpenny Green wish you bums a very happy Christmas and a crutch-free New Year! He! He! He!





*The Over-all Winning Team, the Belgian Civilian Club of Sambre & Meuse. From left to right: Daniel Walraevens, Jean Vanderelst, John Pearce and Martin Ketels.*

## Vth Air Rendezvous, Europe

Spa, as its name implies, is a charming little water resort in the east of Belgium between the well-known university town of Liège and the German border.

The delightful setting of the inviting club and its little airfield surrounded by pine trees, added to the past reputation of this well-organised meeting, attracted no less than nine teams: one Australian, two Belgians (one civilian, one military), three French (one from Chalôn, another from Lille, and a military one from the Air Force base of Cambrai), one German, one Spanish and one locally made-up international team (comprising two Belgians, a Frenchman and a South African).

Amongst the jumpers present many had met previously at last year's World Championships in Leutkirch and included the French Women's Champion, Nicole Bera, of Lille, who finished third in the World Championships to Tee Taylor of the U.S.A., and Tatiana Voinova, of the U.S.S.R. Also present at Spa was this year's winner of the individual accuracy event in the Military World Championships held at Rio de Janeiro, the Belgian, Oscar Dewaele.

Weather conditions were not altogether ideal and most of the jumps had to be made from heights below the previously fixed altitudes.

Helen Flambert and Colin King, of Australia, by winning respectively the Women's and the Men's accuracy events, certainly did extremely well against such strong international competition and both deserve our warmest congratulations.

by John H. T. Pearce

Both Helen Flambert and Colin King, and Daniel Walraevens of the Belgian Civilian Team, who finished second to Colin King and who obtained a "dead centre", certainly convinced the field that Para-Commanders were the chutes to possess these days.

The surprise and excitement of the meeting was certainly the Team Event jumps which were made from a C119 Fairchild Paquet. To see nine teams, each of four experienced parachutists in a single aircraft, is certainly a thing which has not happened often or will not happen again very often in the future, at least from a civilian point of view. No doubt everyone partaking in these team jumps will recall them with a certain amount of pride and satisfaction.

The "Pitz Challenge Trophy" awarded for the Team Event was won by the young French Air Force Team of Cambrai, who beat the Belgian Civilian Team of Sambre and Meuse by only one point, which is to say one centimetre, which, as everyone will realise, is less than half an inch over four men. A really close finish.

The overall final team placing was the Belgian Civilian Team first, the French Teams of Chalôn and Lille second and third, respectively, and the Australian Team fourth.





*Difficult one to beat by A. Charlton*



*Watch those landings!*

*A perfect set-up by Mike Turner*



**Results**

<i>Individual Women's Accuracy</i>	<i>Points</i>
1. Helen Flambert (Great Britain and British Skydiving Centre) .. .. .	465
2. Roberte Delbecchi (France—Chalón) .. .. .	340
3. Nicole Bera (France—Lille) .. .. .	336

<i>Individual Men's Accuracy</i>	<i>Points</i>
1. King (Australia) .. .. .	1,114
2. Walraevens (Belgian Civilian Team) .. .. .	921
3. Cascaro (France—Chalón) .. .. .	921

<i>Pitz Challenge Team Trophy</i>	
1. France—Air Force Team, Cambrai .. .. .	1,058
2. Belgian Civilian Team—Sambre and Meuse .. .. .	1,057
3. France—Lille .. .. .	982
4. Belgian Military Team .. .. .	801
5. International Team .. .. .	487
6. Australia and Great Britain .. .. .	338

<i>Overall Final Team Placing</i>	
1. Belgian Civilian Team—Sambre and Meuse .. .. .	3,033
2. France—Chalón .. .. .	2,889
3. France—Lille .. .. .	2,554
4. Australia .. .. .	2,413
5. Spain .. .. .	2,031
6. International Team .. .. .	1,969
7. Belgian Military Team .. .. .	1,728
8. French Air Force—Cambrai .. .. .	1,651
9. Germany .. .. .	650

An air display, in which took part the British "Red Arrows", the Belgian "Diables Rouges" and many other different planes such as Hunters, Shackletons and an American C.130 (this last plane landing and taking off on the very restricted grass airfield), brilliantly concluded this most enjoyable week of aeronautic sports.





*Right (top): Tom Ridgway—photo: Charles Shea-Simonds.*

*Right (bottom): Ken Vos—photo: Charles Shea-Simonds.*

*Left: A perfect loop—photographed by the world's greatest free fall photographer, Joe Gonzales of the Golden Knights.*



*Right: John Meacock of the Green  
Jackets Parachute Club. Photo by  
courtesy of the "Sunday Express".*



*Below: Ken Vos, acting as Charles  
Shea-Simond's first ever free fall  
photographic model.*





# “The Doc”

by M. E. Pearce



*A “pot hunter’s” delight! A fine collection of silver, including the Chandy Bowl (top centre), with three small Quaichs for the winners; the Chandy Trophy (bottom centre), with Quaichs for the winners and special presentations. In addition, a “gaggle” of finely engraved silver and bronze medals.*

A combination of initiative, drive, boundless energy, thrusting ambition, seasoned with a very broad sense of humour, is probably the best description of the past chairman of the Scottish Parachute Club, who is emigrating to Pictou, Nova Scotia.

Since his first introduction to the sport, “Doc” has continued not only to involve himself in an extremely busy and successful medical practice in Glasgow, but also has a very active commercial life, runs a very energetic family (a charming wife and two children, all as energetic as himself) and still finds time to organise the Scottish Parachute Club, with the very able support of an enthusiastic committee. It all started when he was doing his National Service as a doctor stationed at No. 1 P.T.S. Abingdon, where in freezing cold weather he made his first free fall descent from a Tiger Moth at Kidlington, under the guidance of two friends, Flt.Lt. Hatherley from Papa-Toe-Toe (New Zealand), and Flt./Sgt. Alf Card. After demob, undaunted and full of enthusiasm, coupled with some skill, he started the Scottish Parachute Club,

with a nucleus of one, Jim Taylor, from Dundee. The club has grown from strength to strength, and so have the Scottish Parachute Championships which, it should be noted, claim a double first, i.e., the Scottish Champion was awarded the Chandy Trophy (the first Trophy ever presented for free fall parachuting in this country), and in 1965 they ran the first-ever International Parachute Championships in the British Isles for the Chandy Trophy and the Chandy Bowl.

Whilst enlisting the support of the Chandy Bottling Company in his endeavours to stimulate interest in the sport, he enlisted an equally enthusiastic if non-participant gentleman, in the form of Mr. K. Stockell, General Manager of that company. Chandy’s support has done a tremendous amount for the Scottish Club and parachuting as a whole in this country. It is difficult for anyone to write a profile on such a man as “Doc” Robertson, because in order to follow his career and activities you have to be equipped with as much bounding energy as he has. Therefore, I can only apologise for the inadequacy of



coverage this article gives to such an outstanding character in British Sport Parachuting. The writer found it extremely difficult to keep up the pace during the interview, which was intended to last for an hour and turned into a 24-hour "marathon"! During that time the Scottish Parachute Club honoured the "Doc", and gave him one hell of a party; in addition to all this, "Doc" was arranging to dispatch all his furniture, goods and chattels to Canada, entertain at his own house, hasten over to Edinburgh (writer in tow) for the annual general meeting and party, and imbibe vast quantities of liquid refreshment punctuated with rich food and a fund of stories. The whole programme was successfully completed with the notable exception of my interview!

Several points that did emerge from the interview: "Doc" claims another two "firsts"—way back in his early parachuting days—

1. The first to jump a C.9 canopy in this country.
2. The first triple exit in Scotland—described as "hairy".

He attributes the success of the Scottish Parachute Club to the enthusiasm of early supporters and a willing and able committee, and membership which continues to grow. He joined the B.P.A. in the very early days and became a full instructor in 1961; Advanced Instructor in 1963; Member of the Panel of Examiners in 1964. He is also a medical adviser to the B.P.A.

I asked him, "Why leave, and why Nova Scotia?" "Easy," he said. "Nova Scotia is a great place, full of Scots!" The answer to "why leave" needs an interpreter of the calibre best described as a Scottish Damon Runyan who could competently edit *Lancet* and the *British Medical Journal*!

The upshot of all this is to say that we shall all miss him very much, but wish him every success in Canada, and hope that he will come back and see us whenever he can.



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## Shades of Salisbury Plain

The president, secretary, treasurer, etc., etc., of the club, Max, was approached by a member of the Royal Australian Regiment with a request that the club carry out an air drop on members of the R.A.R. exercising in the lower region of South Australia. Several hours' debate followed, the main topic being—who was going to pay? It was decided to hire a Dove and Cessna, chuck four out at 4,000 ft., jump and pulls, give them a chance to spot us, and four R.A.R. members of the club on static lines. The Cessna to be used by Kerry, John, Fred and Dennis at 7,000. The DZ was spotted on a map and subsequently visited by Max, who came back with reports of wires, thousands of sheep, bulls, trees and a dam, the whole of this in a valley, "the DZ".

The briefing lasted 10 minutes and all congregated at Max's at 05.30, to be greeted by his good lady Bette, bless her, with a smiling face and pots of tea. At 07.00 hours the Cessna party left. Ten minutes later we left. On arrival at a deserted Adelaide airport we removed seats from the Dove and had 10 minutes discussing the best way of getting out. The pilot arrived dressed for the job—blazer and flannels—and was briefed on height, run-in, etc., and advised that a clenched fist lifted up and down would denote "cut"! Negative look from the pilot!

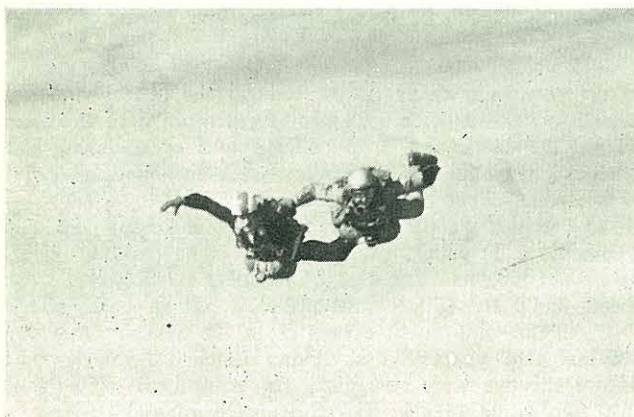
We emplaned, taxied and took off. On take-off, the air hostess's magic box in the corner lost its lid with a clatter, which brought the retort from the pilot "Who fell out?" Eight sickly grins replied.

We flew over the bay, the sun glinting on the white tops; it all looked very pretty. Half an hour later we were over the DZ. Having been volunteered as drifter, I poked my nose out and through the cloud saw the sheep, wires, trees, water and the bulls—well, they looked like bulls. On a nod from Max I departed—who said cut? I left like a rocket and I assume I somehow adopted a rear to deck stable, pulled and had the pleasure(?) of watching my sleeve appear under my left armpit, deploy, and a brand-new canopy complete with seven spread elliptical double L blossom. I hit the DZ beautifully soft (for a change). The remaining seven left the Dove in two sticks and all landed safely except for one who was treed and Max, who, as usual, hit the deck like the Transcontinental and in doing so despatched his altimeter. Anyone got a buckshee altimeter? The next hour or so was spent in debating exits and landings and did the pilot cut?

The Cessna, now at 4,000, disgorged, and Kerry surprised all by doing a stand-up on the side of the valley. Several R.A.R. members appeared and briefed us on our job. We were issued with weapons (busman's holiday), blanks, thunderflashes and the like, with the request that we defend a cross-road. After a lot of noise and cursing we were routed and led off, prisoners of war, to the cry from Kerry that he had shot the four b—s that captured him. We were released after a short while and after more debate made our way back to Adelaide, 90 miles, towing Max's Falcon (he's an unlucky fellow) with a burned-out clutch. Fred and I left Max's to the cries of "but they were dead" from Kerry, and something about altimeters and crutches from Max, and someone on about trees, and bulls. Hey ho!—the end to a perfect day.

South Coast Sky Divers,  
South Australia.

DONALD BRAMLEY



*Closing in for a link-up by Charles Shea-Simonds.*

*Opposite: photo, Dave Waterman.*



~~~~~

# HOT AIR

~~~~~

Dear Ed,

You birdmen sure have got all the nerve. Readin through yore maggazine for professional information on hose at home an hose away I see that a bloke callin issel Lawrie St John is fixin to build a clubhouse wiv a burgler-proof store.

Just you tip him that within three month of it bein opend i shall pay a little night-time visit to prove there aint no such thing.

naterally it will be qwite a risk for the sake of a few moldy cheapos so I hope Bruvver Jon Coale will leave his nopo P.C. in the burglar-proof store (sick) just ter make it sportin like.

Allso me mates on the 'Moor are all very interested in the ascending parachute wall-wise. They woud like an articcle on spottin in thick fog from the forth floor of the cell block an believe they ort to use unsleeved rigs. Is this right?

Yores till the last stick up,

TRUSTIE



Dear David,

Some half a dozen parachutists from Thruxton intend to visit Chalon in late April or early May next year.

If anybody else would like to join the party perhaps they would contact me.

The idea is to cut travelling costs by hiring a Dormobile or other such form of transport and getting a group ticket for the cross-channel trip.

An ideal number would be 12, so any more for the British invasion of Chalon?

Once I know the number going it will be possible to work out the cost per head, which will include all travelling overheads. Meals and jump money to be met by the individual.

Also, if any readers have pictures which they think might be of use to SPORT PARACHUTIST, I will be only too pleased to print a 10 x 8 picture from the negative, free of charge, which gives the people who do the make-up of the magazine a decent-sized print to work from.

*Please send a stamped addressed envelope for the return of the negative!*

Advise fast—for Chalon!

Yours sincerely,  
DAVE WATERMAN

26 Junction Road,  
Brentwood, Essex.

Dear David,

I must express my disquiet at two items which appeared in the last edition of SPORT PARACHUTIST. Both concerned safety recommendations.

The first advised that no modification should be made to reserve canopies except the removal of taschenskirts. I personally take exception to this.

Taschenskirts are fitted to canopies to improve reliability and speed opening. We are, I hope, just out of a run of parachuting fatalities, in a high proportion of which reserve canopies were deployed but failed to develop. The verdict in each case, probably rightly, was that the parachute was not given time to develop. Another way of saying this is that the parachute did not open fast enough.

Surely *any* modification which reduces reliability or opening speed of the reserve parachute should not be condoned by the B.P.A.?

The second recommendation was that the Auster should no longer be considered a suitable aircraft for student training. While I must agree that the Auster is less than ideal for this task, experience over many years (10-plus with the British Parachute Club alone) has indicated that it can be operated safely, which surely must be the criterion.

The Auster is probably the most widely used light aircraft in this country and therefore is likely to be the most readily available to the new clubs which will spring up in the next few years. To ban the Auster unnecessarily might cause serious, perhaps insuperable, difficulty to some new or smaller club. Does the Safety Committee feel that such a club should be pushed into using perhaps a Prentice or Jackaroo in its stead?!

Yours sincerely,

W. J. DON

Dear Sir,

A short while ago I received the Autumn SPORT PARACHUTIST and would like to compliment you on such a fine magazine. Is it not possible to bring out this magazine once a month? Because I, as many others in Zambia, think it is very good.

I am an instructor of the Zambia Skydiving Club and started parachuting in April 1962. I have done 170 jumps, all free fall, and love the sport very much and jump every week-end if possible.

Compared with the rest of the world, we in Zambia are not very big. There are three clubs in the country: the capital of Zambia, Lusaka, and in the north Kitwe and Luanshya. Most jumping is done in Kitwe, as Kitwe is more central for us and the facilities are better than elsewhere.

We live at 4,000 ft. above sea level, so we are unable to do very long delay drops, but on the other hand we have the weather with us, as for eight months of the year we do not have one drop of rain and even during the rains we are able to jump every week-end, because most of the rains occur during the evening.

The planes we use for jumping are a Cessna 180 and 182 and a Tripacer, mostly flown by a woman pilot, Mrs. Win Kearns. The cost of jumping is roughly £2 for about 8,000 ft. (Static and up to 4,000 ft. costs about £1.) All our equipment comes from the States. Only for the last two years did skydiving catch up in Zambia. Before this we were struggling for equipment as we had only two parachutes in the club and were lucky to get a jump at week-ends. At the end of 1962 we received a grant of £1,200 from the local lotteries—after this we were on our way.



Later, most of the members bought their own equipment. Since April, myself and two other members have bought Para-Commanders and like this 'chute very much. Other members are awaiting the arrival of their Para-Commanders and X-Bo's.

Our DZ's are different from those I saw during my leave in Europe last year. For instance, the DZ at Luanshya is a gravel strip with plains of grass on either side. The airstrip is about 1½ miles long and 100 yards wide. On the outer bounds there is thick bush. If you are unfortunate enough to do a bad despatch, and unable to make the airfield, the jumper's DZ may be a scrapyard or cemetery. But it is all in the game!

On Sunday, September 19th, 10 of us did a water jump into Makoma Dam from 8,000 ft. for a 35-second delay free fall. We all used T.U. 5's. The dam is two miles long and 500 yards wide and is the only water in a 20-mile area. The water was warm and we all enjoyed it very much, including the spectators.

As Win Kearns's flying hours have built up so considerably through dropping parachutists, she contributed a day of free jumping which took place at Kitwe on October 3rd. Between 12 of us we did 30 jumps from a Cessna 180. The first drop was done by D. Higgins, J. Jones and myself. We jumped from 10,000 ft. and did a double link-up at 6,000 ft., the first double link-up in Zambia. On the whole, we had a very good day's jumping.

So I end this letter by wishing all parachutists "happy jumping".

Yours sincerely,  
JAN JONKER

P.O. Box 63,  
Luanshya, Zambia.

Dear Sir,

I have found that some of your articles are not completely without interest, and in some cases they are of some value.

But why let misleading articles, such as those written by J.E.B., be printed, because it seems to me that this kind of article is full of false information.

He has said that he has aircraft of every type available for jumping, and also many pilots to fly them.

Now this is complete rubbish, because I have been down a few times, a round trip of 120 miles, expecting to get a jump from one good aircraft at least and not have to go through the usual aircraft-finding trouble.

All I have found is one Auster and this has the front seat left in because it is only available some of the time for jumping.

If I wanted to jump from this aircraft I would have to jump on my own, owing to the fact that the front seat is left in, and from 7,000 ft. this could be very expensive at 2s. per minute.

Now I didn't start jumping yesterday, and I have many friends in parachute jumping who are of the same opinion about these silly fairy tale articles as I am.

So why don't you go into such articles a little more closely, so we can have something which is near the truth; take J.E.B. aside, for instance, and say: "Look here, J.E.B., I know it's all very well getting an article in the magazine each time it goes out, but let's have some facts about your centres, or how you, J.E.B., made a 10-man link-up from 8,000 ft." Then we all will start showing some interest.

I mean to say, what kind of magazine would we have if we all started sending in such fairy tales?

I would also like to ask you if we could have more free fall photos and less ground shots in the magazine,

because I think you completely overdid it with all your photos of Mr. Sherman. I think you would have done better to have a few different faces in here and there.

If you keep doing this kind of thing, you know, you are going to make a kind of "Mr. Pete B.P.A. Magazine Sherman", like we have a "Mr. TV Pallo" of wrestling fame, and you know how everybody hates him.

There is just one more small point I should like to make, but don't take it to heart, and that's your handwriting—it took three of us two hours to find out what you had written about!

Yours faithfully,  
TONY O'GORMAN  
6 Waynflete Close,  
Brackley, Northants.

*Unfortunately, there is no way for me to check on the validity of Club news—you'd better take it up with the boys concerned. I have a feeling they may contact you, soon! As for free fall photos, we seem to be getting some through now—see this issue. I sympathise about my writing—I have trouble reading it, too!—Ed.*

Dear Sir,

The following points arise from the September issue of the magazine, upon the quality of which I wish to congratulate you.

1. The fee for the Scottish International Championships covered eight parachute descents, 10 days' board and lodging of a high standard, and a dinner on the last evening. It could not be reduced because of the expense involved in bringing aircraft from southern England and Lyle Cameron from the U.S.A., plus all the other expenses of a Championships. The S.P.C. lost money on the venture.

2. There is some doubt as to whether the third party insurance contained in the B.P.A. subscription covers the aircraft which the jumper is using. Could you explain in detail in the magazine what is covered by the insurance?

3. I strongly deprecate the suggestion of increasing the magazine price to 5s. If this is done it should not be tied in with the subscription and purchase of the magazine should become voluntary.

4. Some fine day, as a concession to parachutists outside the London area, might it be possible to hold the B.P.A. A.G.M. in one of the Midlands cities?

5. It would be interesting to see a return from clubs showing the percentage of their members who are in the B.P.A. The S.P.C. is 100 per cent.

Yours sincerely,  
TOM DICKSON,  
Scottish Parachute Club,  
3 Belford Park, Edinburgh 4. *Secretary/Instructor*

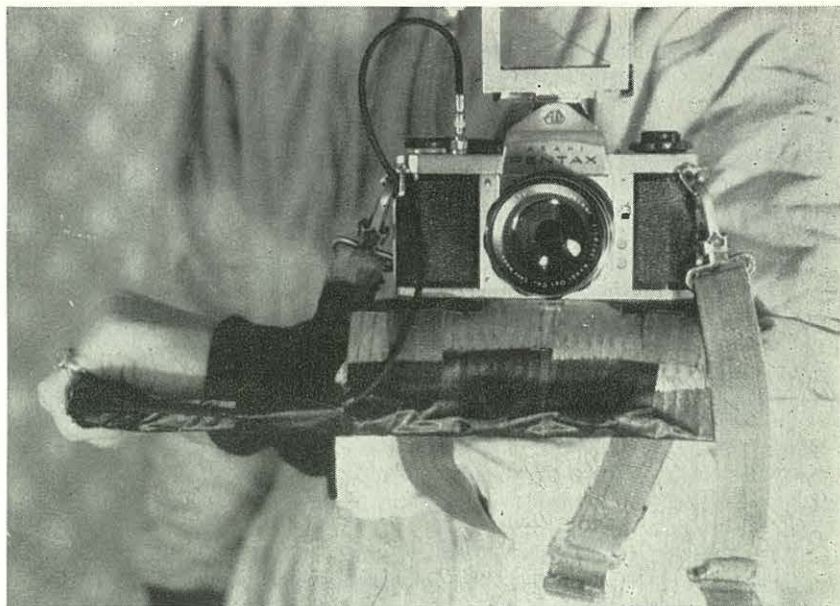
*Sorry to hear you lost money.*

- 1. Apart from your charges, travelling to get there was an expensive consideration.*
- 2. I have organised an article in the Spring 1966 edition concerning the B.P.A. insurance cover—and the short answer is: Yes.*
- 3. I didn't like that idea much either—but we operate on a very tight margin. Suggestions, please!*
- 4. Why not? But with the B.P.A. offices in London the organisation is obviously much easier. Would you care to lay it on next year?*
- 5. I believe the majority of club members do join now, but, while we obviously need as many as possible, it's a good thing to leave it on a strictly voluntary basis, I believe—keeps the B.P.A. on its toes.  
Best wishes as Chairman of the S.P.C.—Ed.*



# AIR TO AIR PHOTOGRAPHY

by  
Charles Shea-  
Simonds



The aim of this article is to pass on some ideas on air-to-air photography discovered after a fair amount of expense and experiment. There is no doubt that the first essential is good experience of relative work; without being reasonably competent there is little or no point in even attempting aerial photography. It is a good idea to work with the same person all the time until you become really sure of yourself; avoid the temptation to jump with the first character you come across, it will inevitably end in poor results.

Now what about the camera? There is no doubt that 35 mm. is the answer, but, although 35 mm. half-frame cameras are very handy, the negative size is really too small for reasonable enlargements. At this stage you should really consider whether to go for a wrist mount or a helmet mount, so briefly I shall sum up the pros and cons of each.

## *Wrist Mount*

This method is essential if you have a manual film advance on your camera, but this does mean that you will have less control in free fall; I don't think this is as much of a disadvantage as some people believe; with practice you can soon become very steady, even when winding on the film. There is slightly more chance of damaging your camera on landing, but even this, I feel, is negligible if you forget where you land and think only of how you land—a long walk is better than a bent camera.

## *Helmet Mount*

This *does* give you more manoeuvrability in free fall, but I think the disadvantages are worth considering as well. Firstly, an automatic film advance is essential, and of these there are two basic kinds. There are now available quite reasonable 35 mm. cameras on the market with a clockwork rewind which gives up to 15 automatic rewinds as fast as you can operate the shutter. Then there are the fully automatic cameras which are normally very much more expensive, and of these the best is undoubtedly the Nikon F with motor drive, but there again I haven't got £350—have you? (By the way, Bob Buquor uses this camera and obviously it is the ultimate answer.) The sighting of a helmet mount camera presents more of a

problem than with a wrist mount, but it's not impossible to solve. Finally, once you've put a stop or distance setting on your helmet mount camera you can't alter it (I've found this desirable so that I can carry on taking photos after canopy deployment).

You can now see (perhaps) why I go for the wrist mount, and I shall now explain my system as shown in photo No. 2. The camera is a Pentax SV with the standard 55 mm. *f*1.8 lens. This is attached to the mount by the bush on the base, and for safety there are two straps on either neck strap D-ring (one goes direct to the mount and the second round the arm). The shutter is operated by a cable release which in turn is operated by the left thumb. Mounted on the top of the camera is a home-made open sight which enables you to focus on the subject without bringing the camera close to your eye.

Before the descent, a number of points must be considered. Firstly, try to choose a day with a bit of cloud about or make sure there is a good background to work against. If there are clouds about, I suggest you use a yellow filter for emphasis, but remember to adjust the exposure accordingly. Exposure is all-important and the shutter speed should not really be less than 1/500 second. As the distance of the subject is never known exactly, you must allow for this and therefore you must stop down as much as possible for maximum depth of focus. The most ideal photos are taken with the subject about 10 to 15 feet away—I set my distance to about 12 feet, which means that with *f*11 your subject will be in focus from about 8 feet to about 22 feet. To obtain a fast shutter speed and small aperture you will need a film of about 400 ASA (H.P.3.) but I find F.P.3 (125 ASA) perfectly satisfactory and less grainy. To calculate exposure, point the exposure meter at 45 degrees into the sky, just before emplaning; take the reading and then open up one stop—it's worked O.K. for me . . . so far! Above all, plan the jump carefully. I find it best for the photographer to exit the aircraft first and with a full spread wait for the subject to get down to him. Remember to stop working at 4,000 feet: *Take not thine altitude in vain, for the earth shall arise and strike thee.*

This short article might give you a few ideas, but it's now up to you and if you get any good results send them to SPORT PARACHUTIST.



# Parachuting News

from  
Malaysia  
by Bob Runacres

We will shortly be having a number of new members for you, as our club is expanding rapidly, with interested people turning up at our twice-weekly training sessions. Equipment to date has been our biggest problem, due to the acute shortage, but we are slowly getting round this by the students buying their own as the bug gets them.

The club has changed now from an all-Sapper affair to a mixture of all arms, plus the odd Aussie and civvy thrown in for good measure. We still don't have a proper club room but we are managing fairly well with a gymnasium until H.G. F.A.R.E.L.F. come up with something better.

We have stirred up quite a lot of interest in the sport by wiping the board at the Malaysian Championships and by three of us jumping in at the opening ceremony of the Singapore Sports Festival week and meeting the King—or the third Yang di-Pertuan Agony, as he is called out here. The stadium where we landed was pretty tight, but we showed it was no fluke by going in again the following day and for good measure once more on the third day, but by then the wind had swung to an awkward corner so we had to place the target just outside the stadium for our safety and also the safety of the spectators. But in spite of this we were still mobbed by thousands and it's the first time I've ever had a policeman protecting my canopy with his truncheon.

The winds are getting very tricky out here now as the monsoon season approaches and it's nothing to have a 180-degree wind change in 10 minutes, or two layers of wind blowing in opposite directions in as many thousand feet. It makes spotting tricky, especially with so many inexperienced students jumping, but it's all part of the game.

We have had two altimeter needles sticking lately, so we are having all our instruments tested pretty regularly at the Army Air Corps instruments shop. So far, in about 400 jumps (mostly people who are new to jumping), we have had one accident. Jock Brown, driving in to clear a tarmac runway, did not have quite enough sky and broke his leg. He made a good job of breaking it and has been returned to U.K. for specialist treatment. Unfortunately, it does not look as if he will jump again as it is likely to leave him with a stiff heel and a limp. Everyone is upset at this because Jock was our most promising student and a very popular comedian.

#### Club Abbreviations

S.S.S.—Sapper Skydivers (Singapore).  
40 Cmdo.—40 Commando, Royal Marines.  
R.A.F.—Royal Air Force.  
3 R.A.R.—3rd Royal Australian Rifles.  
Q.P.C.—Queensland Parachute Club.

#### Trophies

Over-all Winner—Bob Runacres.  
Most Accurate Jump of Day—Bob Runacres.  
Junior Accuracy—Mohammed Noor Ali.  
Runners-up—Alec Black, Ian Smith.

The 2nd Malaysian Parachute Competition was held at Kluang Airfield on August 21st/22nd, 1965. The weather was far from ideal on the second day, with gusty

12-knots winds scattering the unwary competitors, some of whom had been dropping short in the very low winds of the previous day. The two Cessna 172 aircraft from the Royal Singapore Flying Club were kept busy all week-end and a very enjoyable week-end's jumping was had by all. John O'Rourke took time off from flying to have a "dabble", and crashed and burned his way to third place. Mohammed Noor Ali, not long off the static line, did extremely well and clinched his position with a five-foot-six jump. The standard of jumping was surprisingly good considering many of the jumpers had spent long, tedious months in the Borneo jungle just previous to the competition.

The students, many of whom did their first ripcord jump the day before the competition, did very well. The first four had a jump average of well under 40 ft.

To finish the week-end we had an Aussie-British link-up with Bob Runacres, Alec Black and Tony Cooper mixing it at 8,000 ft. with the Aussie contingent, Brian Clark, Jimmy Head and Dave Gladman. The two Cessnas climbed in tandem, the rear plane slightly to one side and below. Some frantic signalling followed by a quick exit preceded Bob, Brian and Dave linking hands while the others milled around looking for an opening.

#### Senior Event

Individual Accuracy from 5,000 ft. Best two of three jumps to count.

Place	Name	Club
1	Bob Runacres .. .. .	S.S.S.
2	Alec Black .. .. .	S.S.S.
3	John O'Rourke .. .. .	Indiv.
4	Penny Seeger .. .. .	40 Cmdo.
5	Doc Johnson .. .. .	R.A.F.
6	Tex Middleton .. .. .	S.S.S.
7	Ian Clark .. .. .	40 Cmdo.
8	Arther Littlemore .. .. .	3 R.A.R.
9	Brian Clark .. .. .	3 R.A.R.
10	Ram Seeger .. .. .	40 Cmdo.
11	Jake McCloughlin .. .. .	R.A.F.
12	Andy Sweeny .. .. .	R.A.F.
13	Jim Mead .. .. .	3 R.A.R.
14	Tony Cooper .. .. .	S.S.S.
15	Mike Johnson .. .. .	3 R.A.R.
16	Dave Gladman .. .. .	3 R.A.R.
17	Ted Bolard .. .. .	3 R.A.R.
18	Sam Giacomantio .. .. .	3 R.A.R.

#### Junior Event

Individual Accuracy from 2,600 ft. (spotted by an instructor) (five-seconds delay).

Place	Name	Club
1	Mohammed Noor Ali .. .. .	S.S.S.
2	Ian Smith .. .. .	S.S.S.
3	Brian Hunter .. .. .	3 R.A.R.
4	Harry Christy .. .. .	S.S.S.
5	Mike Stamford .. .. .	R.A.F.
6	Jack Stamp .. .. .	S.S.S.
7	Jim Young .. .. .	3 R.A.R.
8	Bob Card .. .. .	S.S.S.
9	Taff Joseph .. .. .	S.S.S.
10	Snow Martin .. .. .	3 R.A.R.
11	Chris Herbert .. .. .	Q.P.C.
12	Ron Pitt .. .. .	3 R.A.R.
13	Girrijan .. .. .	S.S.S.
14	Mick Green .. .. .	40 Cmdo.
15	Mick Gibbs .. .. .	40 Cmdo.



# In Council, on your behalf

*These are condensed extracts from BPA Council Meetings.*

**August 19th, 1965**

## MEMORANDUM AND ARTICLES— LIMITED LIABILITY COMPANY

The Council were assured that under any circumstances the liability of each member would be limited to £1 (sterling).

The Secretary General stressed that no jumping could be tolerated without adequate insurance cover. Mr. Pierson suggested that the B.P.A. insurers should be approached to devise some system whereby Cover Notes for insurance could be given.

At this juncture the Editor questioned the B.P.A.'s liability for those who write in the office magazine of the Association, *SPORT PARACHUTIST*, and Mr. Staple assured the Council that the only people who would be bound by the Memorandum and Articles would be the members of the B.P.A.

The matter of B.P.A. representation at an inquest on one of its members was questioned, and Mr. Staple, the B.P.A. Solicitor, said that unless it was foreseeable that any action would follow it was not necessary for the Association to be legally represented; however, it would be in the Association's interests for someone from the B.P.A. to attend. It would be up to the coroner to call any B.P.A. members as witnesses if he thought it necessary.

At this point the Chairman invited a formal vote of thanks to Group Captain Caster for all his hard work as Hon. Secretary-General. He said that without the Hon. Secretary-General's work the Association would not be in a position even to make the present application to the Government. He had helped to produce an Association worthy of notice by the Government, and it was only increasing work and advancing years which has forced the B.P.A. to look for someone suitable to replace him. The Chairman, whilst thanking the Hon. Secretary-General, pointed out that all this time he has given his valuable services free to the B.P.A.

Mr. Lang, as Treasurer, expressed the hope that the Association would be able to give the Hon. Secretary-General some parting gift.

The Hon. Secretary-General thanked the Council for this formal vote of thanks and said that he would be leaving with mixed feelings, but in any case he felt that the job now requires an active parachutist and not only a liaison officer between the Ministry and parachutists. He would be very happy to stay on until after the audit in order to hand over properly audited accounts.

The need to devise new methods of fund-raising was thought to be vital. On the question of teams giving parachute displays for *nominal fees*, the Hon. Secretary-General pointed out that three years ago a resolution was passed allowing for 10 per cent of all such fees to be passed to the B.P.A. It was felt that this resolution had been somewhat forgotten. A large-scale Christmas draw was under way and much hope was pinned on this.

### **Barometric Openers**

These are nothing new, but more and more instructors are becoming convinced that the teaching of novices

needed barometric openers and indeed it was one of the recommendations of the Williams Fatality Report. Sergeant Griffiths produced a sample of a new barometric opener for the Council to examine. It was agreed that a report on barometric opening devices should be prepared for the Council to consider. Air Vice Marshal Silyn Roberts inquired if the Communist KAP3 might be manufactured under licence in this country; he also felt that British instrument manufacturers would be the best people to approach, rather than parachute manufacturers.

**September 9th, 1965**

### **Inquests**

The Vice-Chairman said he had taken up the Ministry's suggestion that a Home Office Circular should be sent to all police stations with the names of certain people who can be called upon to inspect equipment in the case of a fatality. A list of members of the Panel of Examiners and Advanced Instructors was being prepared with the permission of the individuals concerned.

### **Fatal Accident—D. G. Williams**

The fatal accident had been discussed in considerable detail at the last meeting and the Safety and Training Sub-Committee had met over the August Bank Holiday week-end at Netheravon. The accident report had been examined very thoroughly and the Safety Committee were forced to come to the conclusion that the instructor concerned was not in tune with the B.P.A.'s ideas of training and safety, nor with our regulations, and the B.P.A.'s recognised training procedures had not been followed. The committee had recommended to the Council that the instructor should be suspended as an instructor for a limited period, during which time he should put his documentation and training in order.

The Council suggested he should confirm in writing that any future students he might train would be to approved B.P.A. ideas and standards of training.

Finally, his suspension as an Advanced Instructor and instructor was agreed to and it was decided that he should be notified (in writing) that if he undertook to abide by the Rules and Regulations, etc., he may give notice now of applying for re-examination any time after January 1st, 1966. The Secretary-General was instructed to write to the Ministry of Aviation notifying them of the suspension, and copies of the accident report should be sent to the Divisional Controllers as a confidential document.

### **August Bank Holiday Week-end**

The competition was completed and the week-end can be considered a success. About 20 competed and certainly it showed the need for such competitions and provided a basis for future ones. Nevertheless, in the course of jumping, four noteworthy instances of unsafe practice came to light. This was a cross-section of intermediate parachuting and the impression left with the instructors, who organised and participated, was a subject for some disquiet. One incident was a collision in mid-air. Competitors in the Baton Pass event were not up to the standard of category X and it was decided that Class D licences should be



held in future for those events. The Council then discussed the problem of legislating for the number of categories a parachutist should lose after a period of no jumping. These week-ends are for potential instructors, not for parachutists who think one day they might become instructors, and are to help parachutists get their licence.

### **1965 National Championships**

The deficit has been paid by the *Daily Telegraph*, but the money made in programme sales has still left the B.P.A. with a nil balance.

Among the expenses paid by the *Daily Telegraph* was the deficit incurred at Netheravon and it must be realised that this stage was an integral part of the championships. The entrance and jump fees were charged, which had not covered the expenses, were very high and proved to have deterred many of the best performers from entering. The Championships had suffered from this and in future we must make every effort to reduce the fees and find finance from alternative sources.

### **Press Policy**

Brigadier Thompson raised the need for the Council to formulate a policy on press publicity and it was briefly discussed.

### **October 14th, 1965**

#### **Barometric Openers**

The Council noted with thanks the work on this subject carried out by Squadron Leader Hearn, and the Chairman suggested that full discussion on Barometric Openers should be postponed until the next meeting, when members would have had time to consider the report. This matter is under very active consideration at the moment, and they hoped to be in a position to give a full report in the not-too-distant future.

### **Proposed Changes in National Championship Policy**

The Chairman reported on a meeting which he had had with Mr. Stephens, the Managing Director of the *Daily Telegraph*, in which there had been a frank exchange of views and a wide measure of agreement reached. At this meeting, the Chairman, speaking on behalf of the B.P.A., had stressed the gratitude which the B.P.A. as a whole felt towards the *Daily Telegraph* for their continued support of the Annual National Championships. At the same time there was in one important respect a divergence of interests between the two parties. The B.P.A. regarded the National Championships as their best opportunity of the year to make money from the presentation of a first-class spectacle. In order to do this, however, it was necessary to be able to charge admission—particularly for cars. Unfortunately this could not be achieved at the Aldershot Show, to which entrance (including car parking) was free. Thus, although the crowd attendance was extremely high the Association had failed so far to show a profit, in spite of *Daily Telegraph* support. For this reason the B.P.A. was now wondering, firstly, whether Aldershot was the right venue for the National Championships, secondly, whether it was right to divide the Championships into two distinct phases, and thirdly whether the May-June period was too early in the year from the point of view of selecting the National Team.

1. The Championships could in future be held in one phase.
2. The dates need not be tied to any other event.
3. It would be possible to stage the event at the end of the season and to select the National team for

the following year's major International contest.

4. The Aldershot/Southern Command Show could still be supported with, it is hoped, a firm sum of money with which to hire aircraft and subsidise the entry fees of the National Championships.

In discussion it was agreed that there were considerable advantages in holding future National Championships in one phase and NOT necessarily harnessed to any other sporting or public occasion. Providing the best parachutist (the current or selected National Team) were available to give a small number of fund-raising demonstrations at selected shows, it should still be possible to subsidise entry fees for the National Championships. It was agreed that lower entry fees should be one of the B.P.A.'s primary aims in staging successful championships.

After further discussion the A.P.A. offer of Netheravon Airfield as the venue for most years' National Championships was gratefully accepted and the dates were left open. In principle it was agreed to hold the Championships at Whitsun if Great Britain was to enter a team for the 8th World Championships in August, and to hold them in late August, finishing on August Bank Holiday (29th August, 1966) in the event of no British participation in the World Championships.

*N.B.*—Since this Council Meeting it has been confirmed that the location for the 1966 World Championships is unchanged (LEIPZIG in Eastern Germany) and Great Britain will NOT be entering a team. As a result, the A.P.A. has been requested to reserve Netheravon for the National Championships from 19th to 29th August, 1966, both dates inclusive.

### **Premature Opening of Reserve Parachute**

A report was discussed concerning the accident to Mr. R. Foley in which his reserve opened prematurely, having caught the ripcord handle in either the front seat or the edge of the door, when making a descent from a tri-pacer.

Discussion followed on various relevant technical matters including the position of the ripcord handle. It was decided to refer this problem to the Safety Committee; in the meantime, Mr. Peter Lang undertook to write to Mr. Slattery for a further report with particular reference to the tri-pacer.

*NOTE: In connection with the above-mentioned accident the following letter has been received from the Ministry of Aviation.*

"Accident to Piper PA-22, G-ARAE at Navestock, nr. Brentwood, on the 16th October, 1965.

We have been studying the above accident which I understand your association has discussed at a recent meeting.

In one of our reports the pilot of the above aircraft put forward the following suggestions.

1. Reserve pack rip cords should all be centre-mounted.
2. Despatchers might be safer without the reserve pack fitted.
3. Some means of stopping cords going between tailplanes and elevator horns on aircraft used for para dropping might be considered.
4. All parachutists could carry knives to cut themselves free of aircraft.

I wonder if your association would be good enough to give its expert opinion as to whether any of these suggestions are of practical value worth implementing."



# SOME THOUGHTS ON AUTOMATIC OPENING DEVICES

## *The Requirement*

"A parachutist, Mr. W, was killed at XYZ yesterday when his parachute failed to open."

That's the way we usually read it. They always blame the poor old parachute. In most cases, Mr. W is killed, not because "his parachute failed to open", but because "Mr. W failed to open it".

Why? Was Mr. W a novice, numbed by fear? Was he a Cat. VII man carried away by exhilaration? Was he an experienced Cat. X jumper paying more attention to his camera than to his altimeter? Nobody knows why. One thing is pretty certain though—if Mr. W had been using an automatic opening device (A.O.D.) he wouldn't have finished up as a news-flash.

Doctor Charles Robertson, combining his medical knowledge with extensive parachuting experience, has given much attention to this problem of "failure to pull" and concludes that "there is no parachutist who, under all circumstances likely to be encountered in elementary, moderate, or advanced sport parachuting, can be certain that it will be possible for him/her to manually activate a parachute at a safe height above ground level".

A sobering thought. But before you rush off to buy the cheapest A.O.D. on the market, give it a little thought.

## *Some Questions . . .*

What sort of A.O.D.? Barometric? Sonar? Time-device? Electrical? Remote control . . . ?

Are you going to use it on main, or reserve?

What degree of accuracy do you want? How reliable is it to be?

Who needs to use it? Everyone, or trainees only?

Yes, a lot of questions. And not many people seem to have answers to all of them. I don't pretend to. But there do appear to be certain principles that might be of value in considering a suitable A.O.D.

## *Method of Operation*

An A.O.D. consists of two major components—a mechanism for actually opening the pack, and a device for setting off that mechanism at the required height above ground level. I do not intend to discuss the relative merits of springs and cartridges for "opening" and of barometric capsules, electric altimeters, watches, Uncle Tom Cobby and all for "setting off". What I am concerned with is that we know exactly what we want our A.O.D. to do, then we can let those with more wires in their brains decide best how it is to be done.

One thing that I think is certain in our method of operation is that the A.O.D. acts as a "back up" in the case of human failure at normal operating height, i.e., we must have a manual override.

## *Accuracy*

Assuming that our A.O.D. is to be set to operate at 1,500 feet, A.G.L. to back-up manual operation at 2,000 feet, what degree of accuracy do we want?

We want 100 per cent accuracy, you might cry, which is commendable but unrealistic. We must accept a certain degree of systematic error in instrument design, and a slightly larger unsystematic error in the use of the instrument. For instance, timing devices are subject to variations in falling velocity; barometric capsules and altimeters are sensitive to the pressure variations experienced in free fall. An accuracy of plus or minus 200 feet is generally considered to be the maximum acceptable error for A.O.D.s designed to operate below 2,000 feet A.G.L.

## *Reliability*

This is not altogether synonymous with accuracy. We are naturally concerned that our A.O.D. will operate, if required, within the accepted bounds of accuracy. We are also concerned that under no circumstances will it operate prematurely. You might think that a premature opening is preferable to a delayed opening. But consider the consequences of:

- (a) A premature opening in the door or on the wing of an aircraft.
- (b) A premature opening during grouped relative work.

How might this be caused? Perhaps by incorrect setting of the instrument. Perhaps by a direct blow on or vigorous displacement of the device—barometric capsules, unless adequately protected, are sensitive to this sort of treatment, particularly near the set operating height.

## *Trials*

Reliability can only be proven by a comprehensive trials programme involving several hundred realistic trial descents. An item of equipment may appear to be well within specifications during laboratory tests. It may continue to "look good" during the first few live trials. But a full programme is needed to bring out the unexpected, one-in-a-hundred type of error that could be a fatal one.

## *Simplicity*

Reliability is partly dependent upon simplicity, particularly in installation setting, and arming. This thing is to be used by parachutists, not technicians. It is going to be used in the cold, confined space of a Cessna. It is going to be used by people in a hurry, people who may be nervous, people with cold fingers. Even if it is simple, we must accept that someone somehow is going to fit it, set it, or arm it wrongly or not at all. In which case there must be a simple check system, such as a "window" or indicator on a barometric, or an "okay light" on an electrical device to show that the circuit is intact.

## *Main or Reserve?*

I have heard arguments both ways. The factor which sways me in favour of main operation is the dread of simultaneous deployment. Consider—with an A.O.D. set to operate the reserve at 1,500 feet, you only need to overshoot your opening altitude by two seconds or misread your altimeter by 400 feet and, with an A.O.D. error of plus 100 feet, you are in real trouble.

But, as I have said, there are arguments both ways. I for one would welcome a conclusive answer. There may well be a different answer for different situations. So why not a device which can be adapted to either main or reserve?



### Specifications

Are we ready now to say exactly what we want our A.O.D. to do? How about the following:

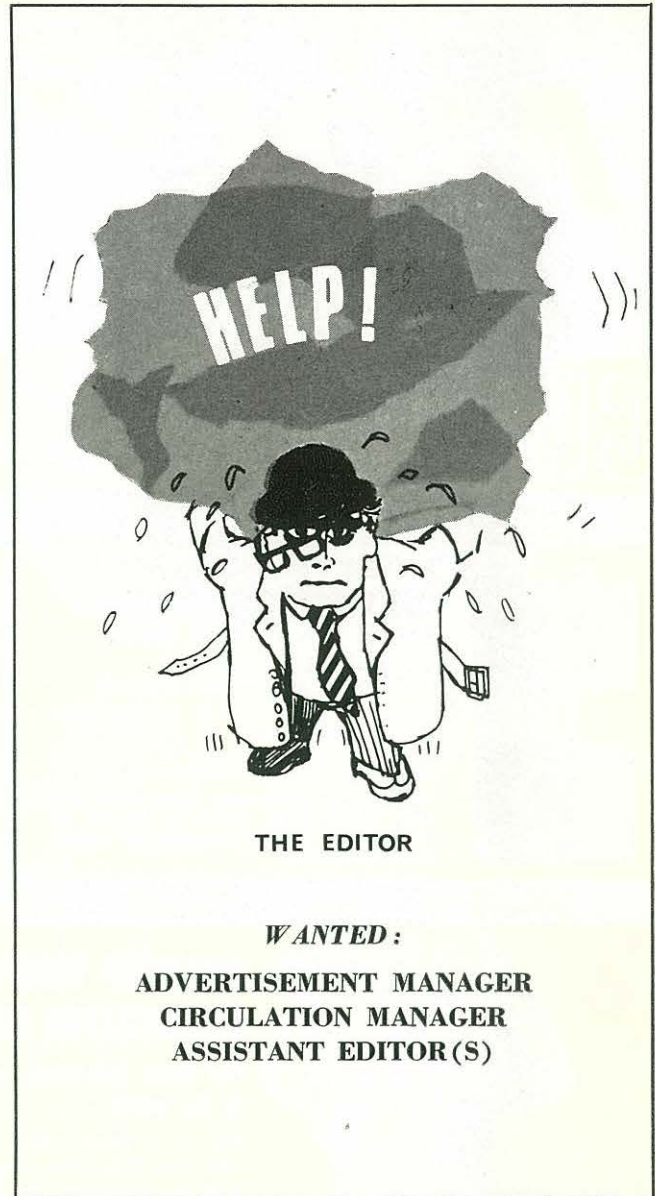
- (a) Must have a manual override.
- (b) Must have a proven accuracy of plus or minus 200 feet.
- (c) Must be sufficiently robust to withstand, without premature operation, a blow or jerk such as might be experienced during the course of preparing for or making a descent.
- (d) Must have a simple method of setting and arming.
- (e) Must have a simple method of checking that device is set and armed correctly.
- (f) Must be adaptable to main or reserve parachutes.
- (g) Must have been proven within these specifications by a comprehensive live-test programme.

### Conclusion

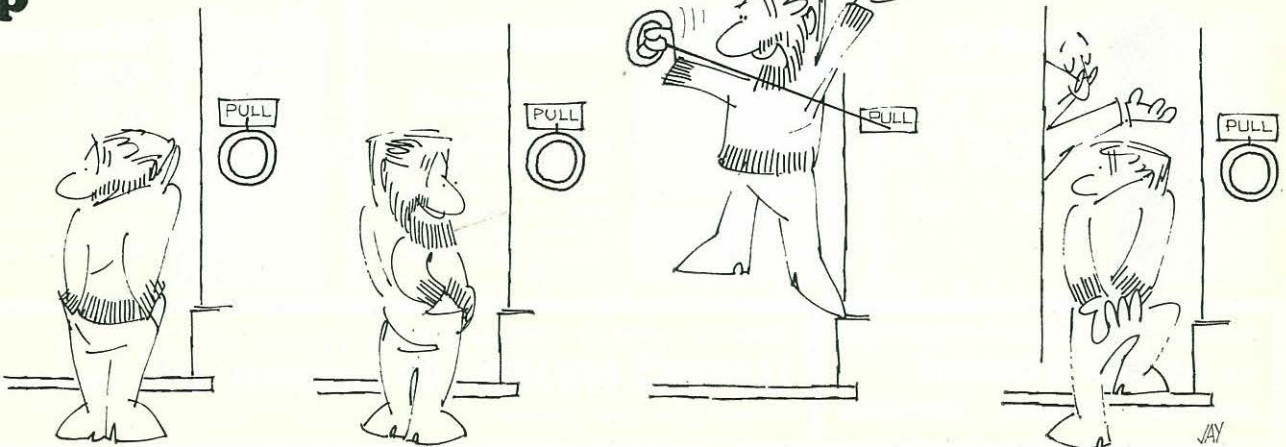
We need an A.O.D. But in eliminating the human hazard of "failure to pull", let us not introduce a potential mechanical hazard. To justify its presence on a parachute, an A.O.D. must be 100 per cent reliable within well-defined and fully acceptable specifications. It would be even more unfortunate to read that "Mr. W was strangled at XYZ yesterday when his parachute opened while he was performing back loops at 6,000 feet. . . ."

### Footnote

No reference has been made to existing A.O.D.s. The B.P.A. Council, however, is attempting to evaluate existing and proposed instruments with the intention of ultimately being in a position to make recommendations to sport parachutists. Any information and suggestions on this topic will be welcome—addressed, please, to SQDN. LDR. P. G. HEARN, c/o B.P.A.



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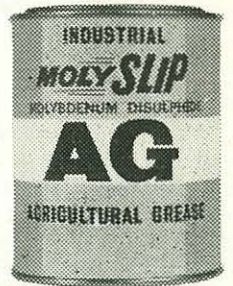
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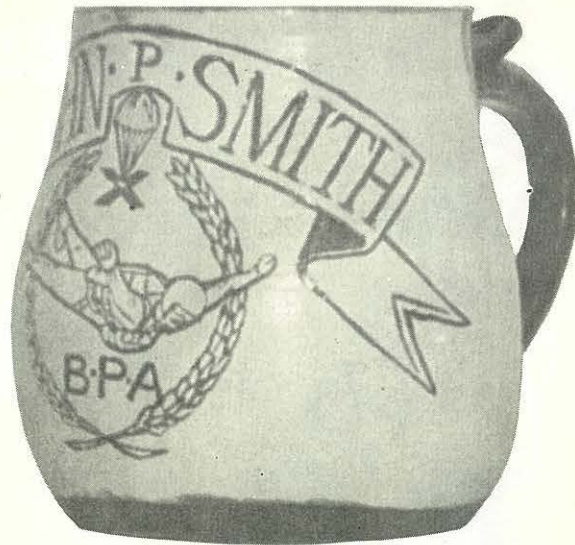
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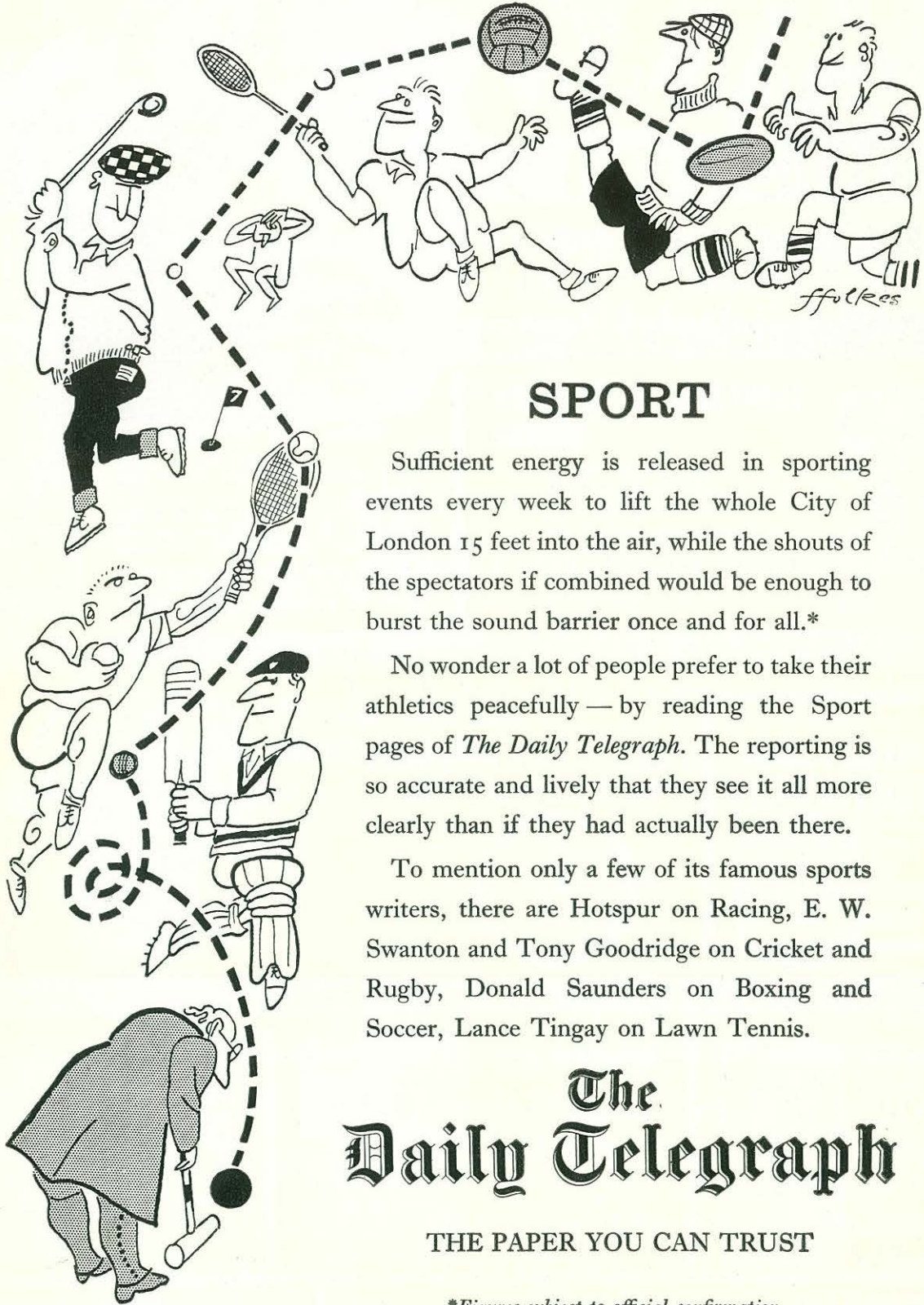


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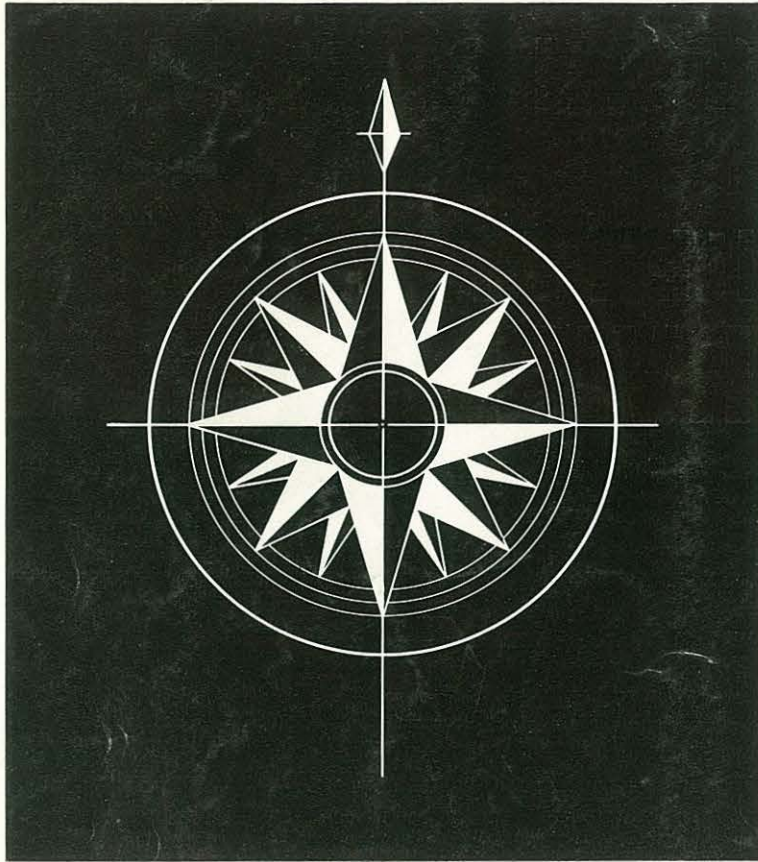
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