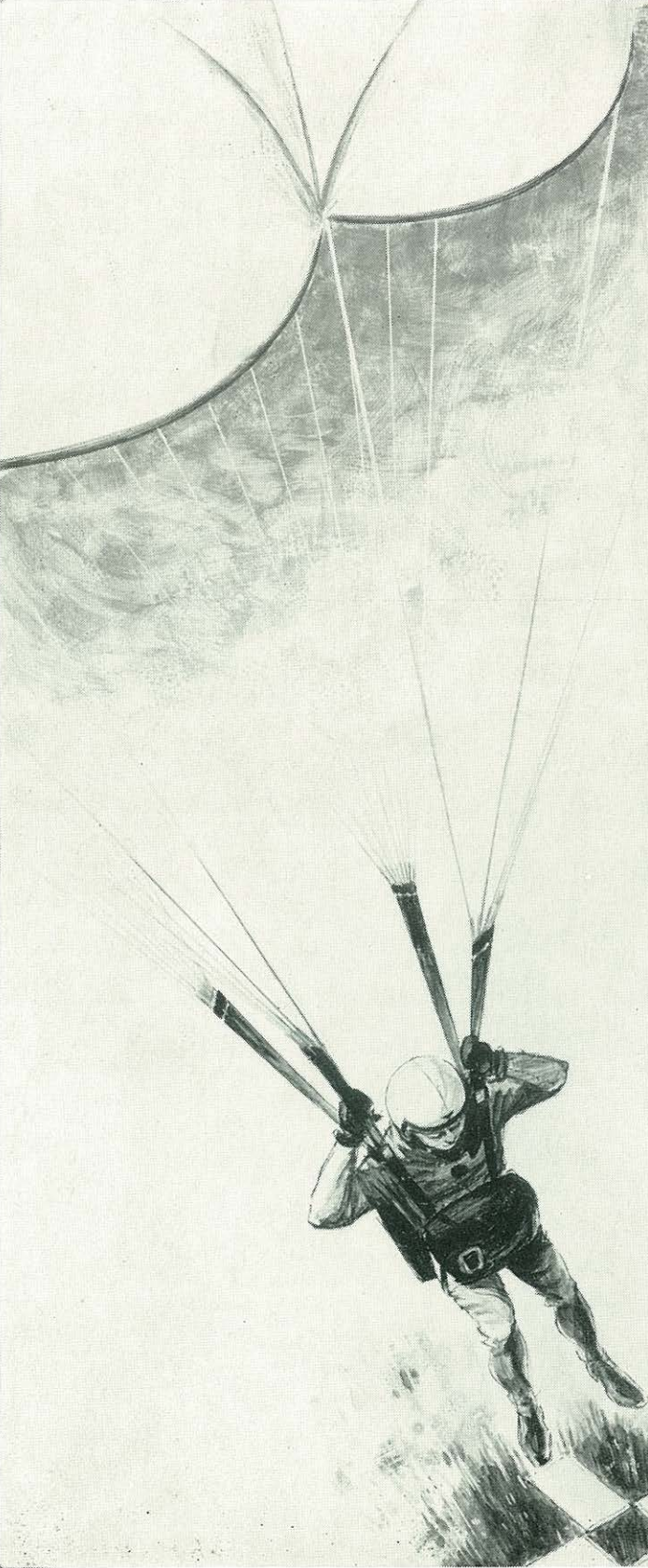




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PARACHUTE
ASSOCIATION

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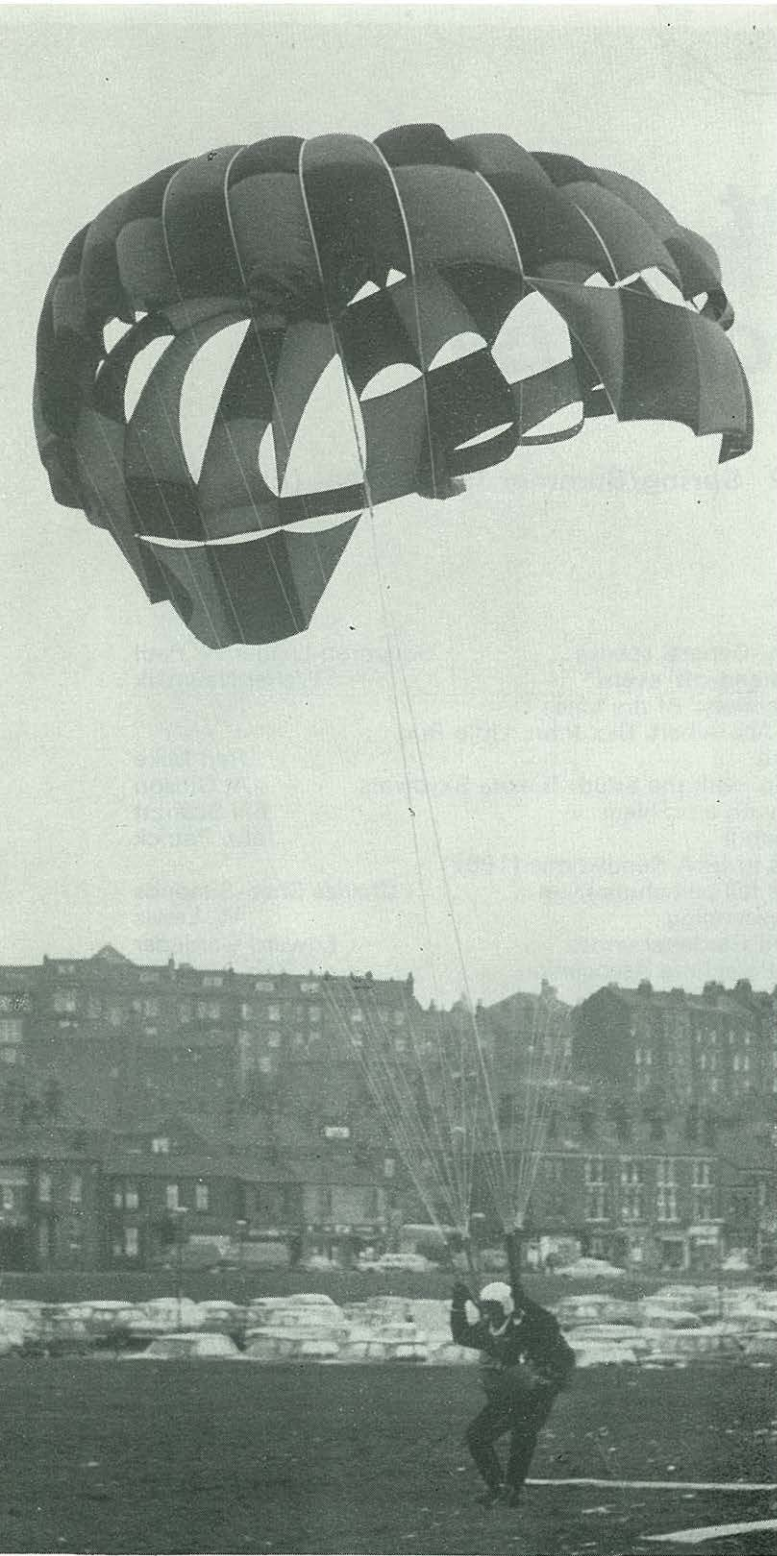
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Cover picture courtesy Geoff Denby, A.R.P.S.

With regret, the Editor will not be able to undertake the return of any material submitted for the magazine.

Articles, statements and all other matter printed in *Sport Parachutist* are correct as far as the Editor and the British Parachute Association are aware of at the time of publication.



Down-town Leeds. Charles Shea-Simonds touches down on a publicity jump for Yorkshire Television

The Secretary-General speaks . . .

I agreed with the Editor that I would try to produce something in lieu of his Editorial and tried to make a start during what I thought was going to be one of the quieter days at the BPA office. Alas the day was to be like all others with the telephone going continuously. The following sample from those calls may not be of particular interest but it leads me to a point . . . "Can you tell me how I can dye my white canopy to achieve a green and white stripe effect?" . . . "Can I speak to your accounts department?" . . . "Where is the nearest club to S.W.16?" . . . "May I speak to your publicity department?" . . . "Where can I watch parachuting on Sunday?" . . . "Is that the Bookmakers Protection Association?" . . . "Your personnel manager please". The only significance about these telephone calls is that I am all departments. I make this point for the benefit of our newer members, some of whom have the impression that the BPA office houses a large staff. I am sure the "old hands" will forgive me if I continue to address our newer members who as yet may not be aware of the BPA organization. BPA policy is in the hands of a 14-man Council which is elected annually at the AGM. The Council meets bi-monthly but in addition the members give a lot of their time to progressing BPA matters. The technical aspects of the sport are the responsibility of the Safety Committee which, under its Chairman, comprises all Club Chief Instructors. BPA at present depends on the Board of Trade (Civil Aviation) for the issue of your Restricted and General Exemptions and on the Royal Aero Club, through the British Light Aviation Centre, for the issue of FAI certificates and Competitors' Licences. It has been suggested that BPA should take over the issue of these Exemptions. Certificates and Licences—from my point of view this would be acceptable and I hope to follow up the suggestion.

What is the possibility of having more accuracy competitions like the Old Warden and Pudsey meets? I was invited to attend both these meets and was most impressed by the enthusiasm of the organisers and competitors. Everyone present enjoyed those meets and all agreed that we should have more. How about it club committees, could we arrange a series of meets for next year? I would like to see a list of meets drawn up at the start of the year with the various clubs acting as hosts. Apart from providing the desirable competitive element, clubs would benefit from the local publicity. I will be pleased to have suggestions from clubs and to act as co-ordinator.

Planning a 'stand-off' event

Walter Neumark

Note: Copy for this article was received prior to the 1970 National Championships and indicated the detailed investigation carried out by Walter Neumark.

1. Introduction

It is most improbable that the 1980 World Parachute Championship disciplines will be the same as those of 1968. Increasing technical skill and new equipment are bound to bring about additional events without necessarily eliminating the old. The hope that one of these new events should be pioneered in England instead of in the USA, France, USSR, CSR, etc, motivated the originator to suggest the event and to donate the trophy. A secondary purpose is to provide extra spectator appeal and thereby increase the number of visitors and the income for the BPA at the Nationals.

2. Proposed Rules:

(1) Wind Velocity for every thousand feet is monitored every half hour for 1-2 hours before the event and the latest actuals and forecasts for the next 60 minutes are displayed to all competitors.

(2) The judges select the highest possible altitude for the dropping run up to 10,000 feet. The aircraft runs over the airfield at the selected mandatory height heading into the mean wind line which is also pre-selected by the judges.

(3) Each competitor individually selects the distance away from the upwind boundary of the airfield at which he intends to exit. This is given on command from ground radar or DME control or by the aircraft pilot if equipped with DME or Decca etc.

(4) Marks are awarded as follows:

- (a) 1 point for every 100 yards of distance between the declared exit point and the upwind boundary of airfield.
- (b) Bonus marks are awarded for landing in concentric target circles of 100 yds., 60 yds. and 30 yds. diameter. The bonus marks are: 10%, 20% and 33½% of the *individual's own distance marks*.
- (c) Distance marks are *only* gained if the competitor lands within the boundaries of the airfield. All marks are lost by landing one yard outside.
- (d) If time permits 2 attempts by competitors only each individual's highest score counts.

(5) Para-Commander marks will be multiplied by factor x (greater than 1)

Parawing marks will be multiplied by factor y (less than x)

Para-Foil marks will be net.

The factors will be designed for 1970 so that PCs can still compete.

In 1971 it may be desirable to remove all factors and have an absolutely open competition.

(6) Malfunctions. All competitors should "jump-and-pull" from the mandatory height. It may be advisable that one light aircraft should fly in visual contact with the dropping aircraft (but should not confuse radar control) and follow any competitor descending on a reserve canopy after a mains malfunction.

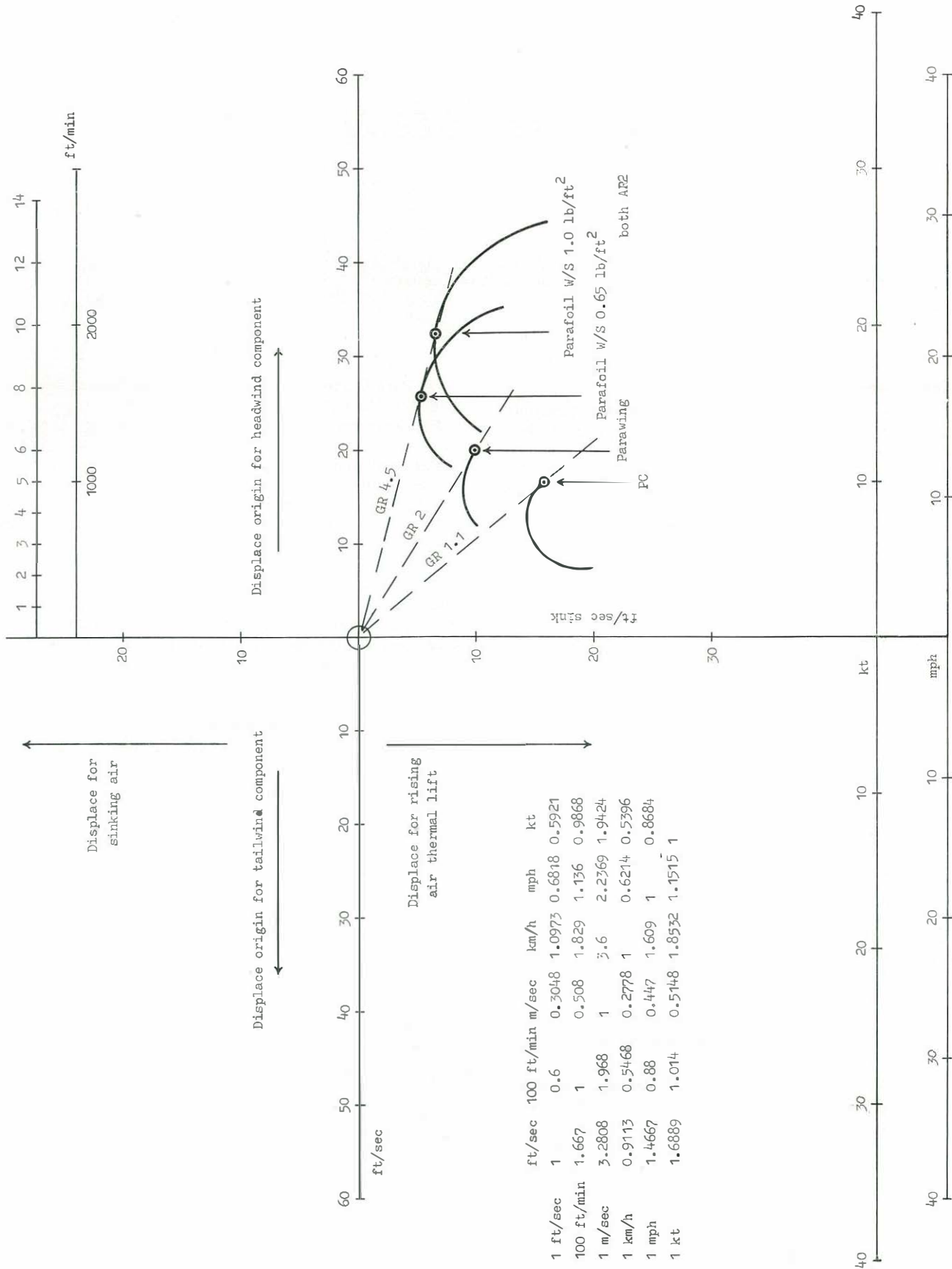
3. Calculation of Gliding Range

How you achieve the maximum distance and maximum points is left entirely to you but the following suggested system of calculating gliding range is offered for your consideration.

This is carried out by using a polar diagram plotting rate of sink against forward airspeed on equal scales so that gliding ratios over the ground can be read off directly by displacing the point of origin in accordance with tail wind component and drawing a tangent to the performance curve, here contracted to a dot. One then divides vertical length into horizontal length to obtain Glide Ratio over the ground. As the true rate of sink and airspeed increase with altitude and with increase in weight but the maximum Lift/Drag ratio remains constant with altitude and with extra weight, the Lift/Drag ratio is used to calculate the gliding range over the ground.

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The values shown for PC (assume that Dominator and Olympic have the same max L/D of 1) and those for the Parawing and Parafoil have been taken from manufacturer's data and the very meagre flight test data available and rounded off to max L/D of 1, 2 and 4 respectively. Stand-off events will cause manufacturers and parachutists to take an entirely new interest in obtaining much more accurate performance data.

The table shows the interpretation of the polar diagram in terms of range for a given altitude band at a given tail-wind component.

Example for PC

Altitude (feet)	Tail W/V Component (knots)	Range (feet)
10-12000	40	
8-10000	40	10000
6- 8000	30	8000
4- 6000	20	6000
2- 4000	10	4000
0- 2000	10	Safety height allowance 28000=5.3

Total range = statute miles from target with 2000 ft in hand if parachutist is fully deployed and on course at 10000 ft above target height.

If the air sinks at 10 ft/sec one displaces the origin upwards in addition to the displacement left for tail, right for head wind component to obtain Glide Ratio over the ground. All cross-country competition sailplane pilots do this in flight to know how much height they need to reach their destination in their last fast glide and to calculate their optimum air speed. The polar diagram and glide ratio tables should be used by competitors in simulated armchair and map exercises in order to get an instinctive 'feel' for the problems. It will be seen that when seeking maximum gliding range on downwind glides with tailwinds and without sinking air it pays to slow down to the speed for minimum rate of descent, in still air one should always fly at the speed

for maximum Lift/Drag and when flying through sinking air or in a head wind one should always fly faster than the speed for maximum Lift/Drag.

On any gliding aerofoil including the Para-Commander the maximum Lift/Drag point on the performance curve is the point where a line from the origin $x=y=0$ touches the performance curve tangentially. The speed for minimum rate of descent will always be slightly slower than that for the maximum Lift/Drag speed.

When any gliding aerofoil is in sinking air, speed should be increased to max L/D on the PC and beyond the max L/D on Parafoils.

5. Discussion

During training and in the first 1970 competition, the aim will be to give a good reserve height so that 90 per cent reach the airfield and the main skill required will be to get rid of excess height by heading into wind, braking, stalling, etc. As experience is gained one may be able to decrease the reserve height to place greater stress on navigation, flying at the optimum airspeed and correctly utilizing lift and sink and wind velocity changes. It is important that competitors should all fully deploy at a predetermined altitude and also because they will be bulkier (warm clothing, gloves, supine harness modifications, compasses, maps, life jackets, electric variometers) it would be wise not to discount static line deployment so as not to waste one foot of height by delay in getting into a stable position for opening.

For the benefit of spectators, competitors would be requested to use smoke, each individual would be asked to start smoking at a different altitude.

Glide Path Judgement

Tall Hangars on the approach side and on the far side of the airfield are 'eyeballed' to see whether more ground is appearing behind them or whether the hangars are slowly obscuring more background. It is very useful if the background behind such hangars has considerable detail—such as cars parked on it rather than even grass.

The principles are the same as those used to date but merely extended in range.

It may be possible to use a few high intensity approach lights.

... need more Annual Raffle Tickets?

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G.Q.

Keeps 'abreast' of the times

A LONG felt need in United Kingdom Sport parachuting circles has been a British made steerable reserve.

The current chest reserve produced in this country for use by military paratroopers is the 24 ft flat circular known as the I24. This canopy is of ancient design and barely adequate for its task. With an average descent rate of around 23-24 ft/sec and usually a vicious oscillation as well, the last few feet of a descent on this canopy has been known to bring curses of terror from the lips of strong men! This canopy, and its American equivalents of the T7A and T10 reserves, which are virtually identical with it in design and performance, are to be found in over 90 per cent of British sport jumpers' equipment. The only alternatives at present available are the 26 ft conical, which is increasingly hard to get, and the Pioneer and Security LOPO reserves. The 17 ft GQ reserve will be a welcome addition.

Trials are proceeding with the parachute but the performance figures at present available indicate that the reserve, with a 200 lb jumper suspended under it, will have a descent rate of 16-18 ft/sec and a forward speed of 6 mph. During recent trials at Netheravon reasonably good accuracy was being achieved on the target area and the manoeuvrability and speed would be more than adequate to get a display jumper out of trouble after a malfunction during a jump into a tight showground.

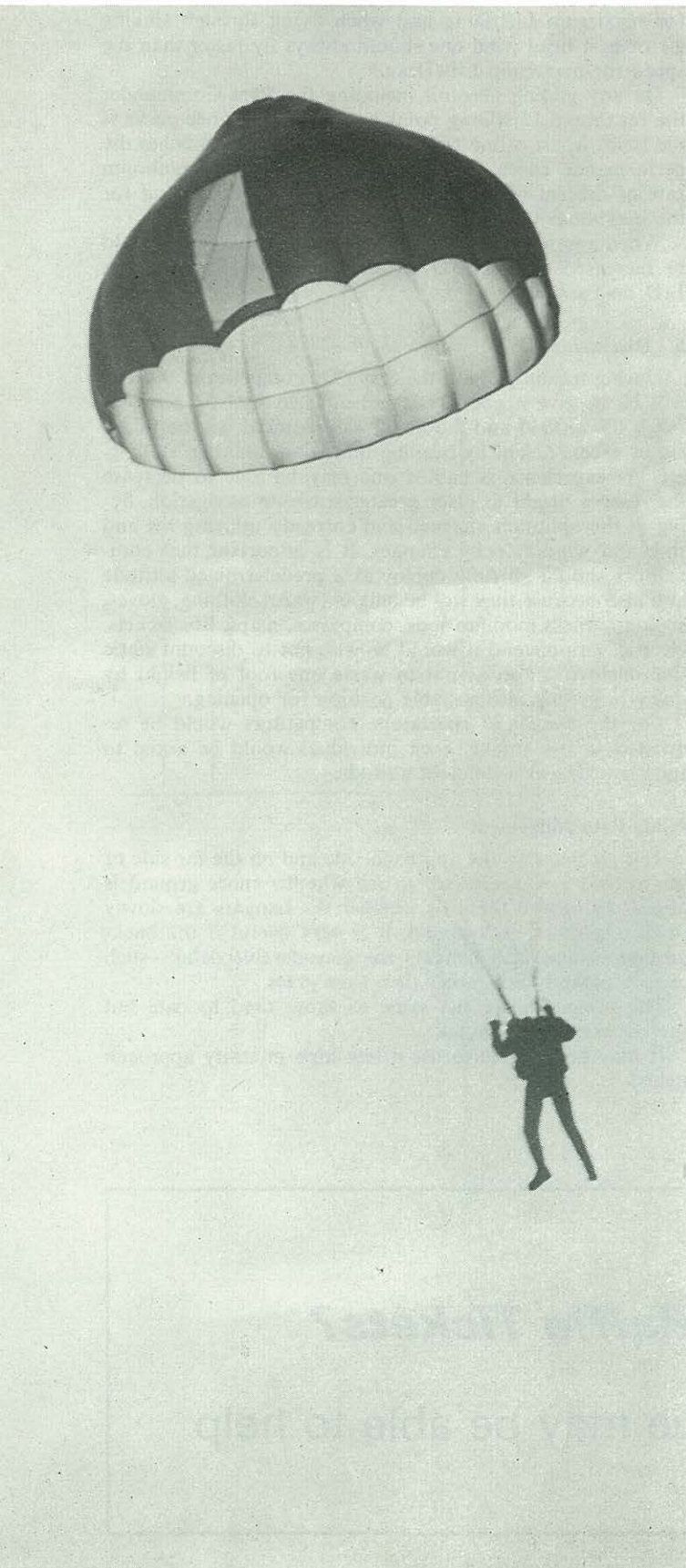
The 17 ft flying diameter canopy is conical in shape. It is constructed of virtually zero porosity 1 oz/sq yd ripstop Nylon which is cut parallel to the periphery, i.e. it is 'block constructed.' Unlike the I24 canopy the rigging lines are hem rigged, the radial seams of the gores being made of 400 lb BS $\frac{1}{2}$ in Nylon tape. The canopy has 20 gores and two of these, with a five gore separation, are blank for about one third of their length. These blank gores are covered in with Nylon netting as an additional safety feature. Control lines running from the outside lines of these steering gores to the short lift webs of the reserve will provide normal steering capability.

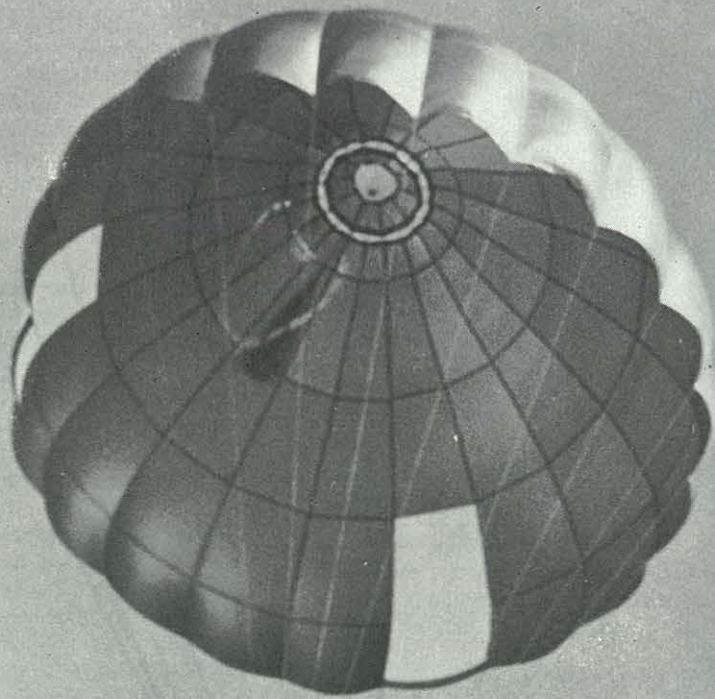
To cut down the opening shock and prevent damage through using the zero porosity material an unusually large apex vent is part of the canopy design. This is covered by a cunningly designed vent cover which creates lift in an area which normally is fairly inefficient in a canopy of this type.

The pack is made of Nylon and is of conventional modern design, shaped to the jumper's body. The ripcord position will be to the buyer's choice, the pack being available in either centre or side pull configuration.

The canopy will be coloured and in fact, you will be able to have it in any colour combination so long as it is red with a white section between the blank gores! (to misquote Henry Ford).

Final price of the reserve is not available as I write but it will certainly be competitive in comparison with the price of a brand new American low porosity steerable reserve.





the story of Ace Albert, Big John, Little Rod and Red Mike . . .

ONCE upon a time, four intrepid skydivers, weary after a hard day's parachuting, decided to retire to a local hostelry for the evening to partake of a little light refreshment and exchange numerous stories.

Two hours later, much refreshed, three slightly—only slightly—drunken skydivers and one sober 'ace' (he'd been drinking coke) emerged, weaved their way unsteadily through the car park, and set off back for the airfield, the sober ace—of course—driving.

One of the more observant skydivers noticed a bright light shining in the east. After hasty consultation the four decided that it was not Christmas, and concluded that it must be a fire. Their thoughts turning to boyhood days, when they all wanted to be firemen, they changed course.

Chasing a bright light through dark, winding country lanes that you don't know is not an easy matter, but Ace Albert—the driver, and an expert spotter—tracked it down. The car screeched to a halt 50 yards past a blazing barn. But not a sign of a fireman.

They strolled up the farm track to the house, knocked on the door, and a typical country-type yokel came to the door. 'Er, excuse me,' Big John began, 'I'm sorry to disturb you, but, er, I think your barn may be on fire.'

The farmer, disappearing down the hallway in the general direction of the telephone, muttered something about cows. As all the skydivers were male, this rather shocked them, until, after more hasty consultation, they deduced that the farmer meant there were cattle in the vicinity.

Their thoughts once again turned to boyhood days—when they also wanted to be farmers—and set about tracking them down. Thirty seconds later, a triumphant shout sounded from a large building. They rushed in, and found Big John lying face-down in six inches of straw, mud and slime, with about 70 cows mooing their disapproval of the unholy racket he was making. His groans sounded very much like Beethoven's second symphony in B flat major.

But without regard for their own safety, the four set about getting the cattle to safety. Little Rod, a great lover of horses, was seen leading one cow away with a handkerchief over its eyes.

The other three had just finished herding the other cattle to the far end of the farm—and chased back again by a very large bull—when the local fire brigade arrived. While the firemen sprayed hundreds of gallons of water onto the blazing barn, Ace Albert—who always liked to be in the thick of things—rushed forward with a small hand-held fire extinguisher. His spotting on this occasion, however, was not so good, and he only succeeded in drenching one of the firemen.

The fire chief, standing between Little Rod and Red Mike, asked, somewhat perplexed: 'Who the blazes is that?' Little Rod, proud of his association with Ace Albert, replied quickly: 'Oh, he'll be all right. He's our Chief Club Instructor.' Not knowing what Little Rod was talking

about, and being stuck for an answer, the fire chief remarked to no one in particular: 'Well, he certainly seems to be enjoying himself.'

Eventually—but shyly not waiting for the medals they were convinced they would get—the four happy skydivers returned to the airfield to tell everyone of their heroic deed.

Red Mike, fancying himself as a top-line news hound and looking for a bit of easy cash with which to pay for the day's jumps, dashed to the telephone and rang the newspapers. Taking great care to give all the details correctly, he related the tale minute by minute—including the dramatic car dash from pub to farm.

The result—as appeared in some editions of *The People*, on Sunday, October 12, 1969—was headed 'Skydivers drop in on blaze' and read as follows:

'Skydivers dropped into farmer Peter Kirkham's barley field yesterday and shouted: "Hey! Your barn's on fire."

'Mr. Kirkham quickly recovered from the shock of seeing the crash-helmeted parachutists—and moved his 250 cattle to safety.

'But the blaze, at the farm in Bobbington, near Stourbridge, Worcs., destroyed hay worth £3,000.

'Mr Mike H—, a member of — Sky Divers Club, said: "We were jumping when I spotted smoke. The farmer had no idea his place was on fire".'

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'Barnstorming' with the South Dakota Skydivers

AL GIBSON

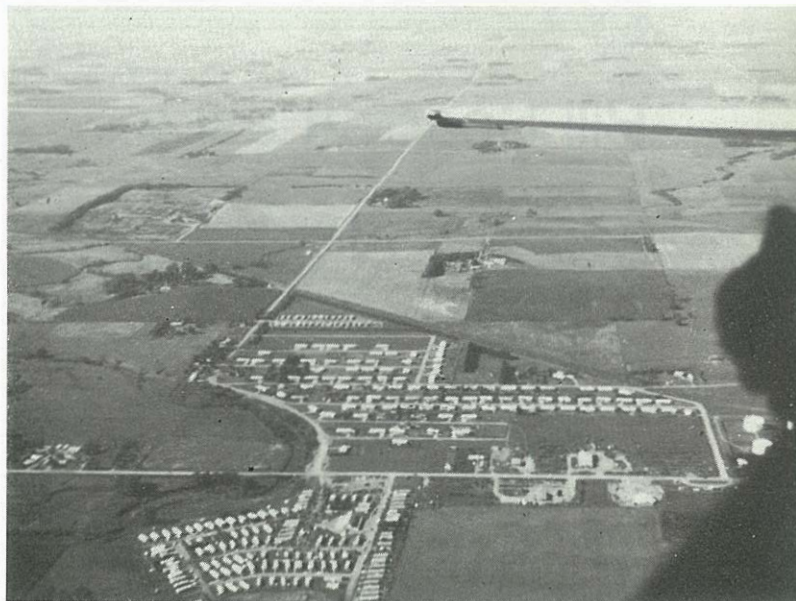
'This looks straight enough,' speculated Bill, our pilot. We were sitting in the car of the Pierce County newspaper editor, who was also the Deputy Sheriff and owned a grocery business. I had been asked by two members of the South Dakota Skydiving Club if I would like to join them in a demo at the County Fair—one of those cosy American get-togethers for all the family consisting of pony races, baseball games and a funfair. Since there was no landing strip, our editor-sheriff said that we could use the road if we liked. You might think that the novelty of parachuting had worn off in the USA by now, but in the small town of Pierce, Nebraska, the sight of a brightly coloured PC descending from the cloudless sky was to cause a sensation near to that of a Martian invasion.

The time came for our first jump. A roadblock was set up, and Bill taxied the Cessna to the end of the road and turned it to face the wind. As the aircraft accelerated, we passed a crossroads sign and I wondered for a horrified moment which road had the right of way. However, we were soon airborne, and gained enough height to survey the small town and the fairground.

By chance rather than design we all sported different types of canopy: Jim had his brand new Parawing to show off, Bill (no, not the pilot!) had a PC and the ever-begging Englishman had managed to borrow a TU from the local club. In accordance with the Law of Eternal Cussedness, the wind-line went straight through the residential area of town consisting of houses, swimming-pools and trees everywhere, all waiting to welcome us after a bad spot. Not only that, our target was the baseball pitch, not much larger than a ten-dollar bill and thoughtfully surrounded by a ring of floodlights, each post being connected by an airborne cable. Needless to say I had already decided that this wasn't TU-able and had my eye on a field of cows adjacent to the fairground as a target.

By now, my meter was reading 5000 ft and a glance through the jump-door was rewarded by a breath-taking view of the Mid-West terrain. As far as the eye could see the ground was divided into sections like a huge, green patchwork quilt. The most striking feature was the absolute flatness of this area of the States—not the slightest hint of undulation in any direction.

As we came in on jump run, Jim started spotting. He and Bill were going out first to attempt a hook-up, while I would follow them and watch the fun from above. The freefall went as planned and our attention turned to trying to reach the target. As we seemed to be too far upwind (i.e. over the town), I set off on a frantic downwind dash, a task not made any easier by Jim running a couple of circles round me on his Parawing, just to show what it could do.



'... a huge patchwork quilt'

As we neared the target, it became increasingly obvious that my far from versatile parachute would never make the distance and I was tossing up between various swimming-pools, when I spotted a small field of corn (maize) near the fairground. There were some trees between the field and the spectators and I learnt later that it looked as if I had landed right in the middle of them, much to the crowd's delight.

Landing in the field, the problem now was to get out of the corn and back to the arena. That sounds easy enough until you try it. First of all, I was in the middle of the sort of corn which is 'as high as an elephant's eye.' What's more, the corn immediately fell in love with my canopy and just didn't want to let go of it. I was getting more and more frustrated trying to extract nylon from undergrowth, when a middle-aged man appeared out of nowhere with a puzzled expression on his face. I guessed that he was the owner of the field and mumbled my apologies to him for the unorthodox trespass. He replied assuringly that he felt it was an honour to have me and he then escorted me into the arena in his truck. In the intense afternoon heat, it was as much as I could do to bail-out of the vehicle clutching my gear and stagger across to where Bill and Jim had already half-packed their chutes. And did I get a welcome of nice, friendly comments from the spectators? You're joking:

'Got lost then, did you?'

'Is this the first time you've jumped?'

'Made it here at last.'

'How were the trees?'

That was all I needed to finish me off. Then came the packing. It was now that I realised how spoilt I had been back in Netheravon, with its array of beautiful packing-tables, line-separators and tension-boards. With one eye on Jim to see how to do it, I conned two unsuspecting youngsters into providing tension on the rig, while I struggled valiantly against the wind to get the thing into some semblance of order. Boy, if Joe Reddick could see me now.

please turn to page 30

Bill Scarratt asks:

PROBLEM. How do you teach a man to free fall who can hardly speak any English? Although familiar with some parachuting terms, he has no equivalent terms in his own language, he comes from a remote country somewhere between China and India.

An Instructor's nightmare? Some people would think so. But, as usual with disadvantages, advantages are present too. On this particular course, the advantages were as follows:

All were trained soldiers and as such were able to do exactly as they were told, with the help of an interpreter who had done a course previously. All were trained military parachutists, and so were familiar with aircraft, emergency procedures and landing techniques. Therefore the practical side of the ground training was emphasised and physical rehearsals of everything was the order of the day. The key here being their ability to copy movements and reactions, and to act by drill movements, which is what their regimental life is all about. So the ground training had to be modified and lengthened with this in mind and more time was spent, for example, on aircraft exists and emergencies (and less on landing falls with which they were very familiar) and parachute packing with which they had a great deal of help at every stage. The main difficulty experienced was the change from the military static line closed position already taught them to the open position of free-fall. This was achieved by drill movements and the course report reads as follows:

After a series of false starts stretching over a period of three months the course finally assembled at Kluang Johore to commence on 4 December, 1969. Chief Instructor was C/Sgt W. Scarratt from 10th PMO Gurkha Rifles in Penang, assisted by Cpl White, RMP, from Malacca, later joined by Cpl Mardle, New Zealand Army, and Sapper Martin, RE, both also from Malacca; all three were dug up and dispatched to Kluang by WO1 Reid, RAOC, who was originally down to instruct, but could not be released because of being tied up with the planned withdrawal to Singapore.

Twelve main parachutes with six reserves and all the bits and pieces were supplied by the Parachute Regiment in Aldershot, to whom the Gurkha Para Coy are affiliated, and secured by a series of frantic signals from Major Niven, OC, to CSM Rabet, the admin NCO of the free-fall team, the latter dispatching the equipment, which had just arrived back from on loan to 3 Para in MALTA, post haste via VC 10 to Changi.

A Beaver from I30 Flight in Singapore was promised for the static line stage on the 8, 9, and 10 December, and a Scout from 11 Flight at Kluang for the 11, 12, 13 and 14.

On the course was Captain Daintry, Irish Guards, a pilot with the Flying Instructional Element at Kluang, and seven Gurkha soldiers from the Para Coy. With the exception of Capt Daintry all were trained parachutists.

The course kicked-off on time and four days went by filled with all the do's and don't's of ground training, ending with all chutes packed and waiting for the Beaver. The aircraft duly arrived from Changi at 0800 on Monday, 8 December, piloted by Capt Gravette-Ball, RCT, accompanied by a Cpl from REME, who immediately set to with masking tape and hair pads to conceal all the nasty bits and pieces sticking out from the side of it.

After a brief familiarisation with the interior, the first stick, led by Capt. Daintry, put parachutes on and after being thoroughly checked, explained for the first jump of the course, being duly despatched over Kluang airfield, by C/Sgt Scarratt. All made good exits, held their positions well and did all the things they were supposed to do and landing safely with the exception of L/Cpl Budhiraj who disappeared down a monsoon drain to conclude a good

first round. The second round was to be a little more interesting.

The second man out, L/Cpl Narkumar, not being completely familiar with the steering of the canopy, landed in a very spiky-looking tree outside and near to the offices of FIE and 11 Flight accompanied by a chorus of screams from the locally employed, and a series of threats and curses, plus of course, the usual laughter reserved for people's misfortunes from the mixed elements of that vast complex, 75 Aircraft Workshops. Result, no damage to man, none to chute, and the tree, looking a bit ragged but otherwise still standing, relatively intact.

Round Two over, Round Three finished with L/Cpl Naraindhoj up another tree, this time behind the Fire Station. At this stage the Instructor's nerves were shot away, and a halt was called to wait for more favourable winds, the alternative being to cut down all the trees around the airfield.

The rest of the day went well, with the exception of a malfunction caused by a poor exit, the chute deploying while the student was on his back. The sleeve and pilot chute, which had a short retaining line, hooked into the top of one of the blank gores, causing a spinning malfunction, and immediately dealt with by the student, who activated his reserve and threw the canopy into the spin as taught. A copybook reserve deployment followed, the student landing safely on the airfield. Result, one lost reserve handle. The first day over, the instructor was seen returning to the mess muttering and swallowing black pills. The order of the day was now to be up at six, aircraft at seven. Target: three jumps a day.

Fog on the second morning slowed us down but we struck off at 0830 and by mid-day had two jumps each. The weather, which was beginning to look bad, finally arrived. Continuous rain for forty hours left Kluang Town flooded out and the airfield soaked. So no jumping on the third day, but up as usual on the fourth ready to do battle. As the Beaver was only scheduled for three days, this left us in a bit of a spot with only an average of four static line descents each, but the pilot very kindly contacted his OC, Major Shields, RCT, and we had the Beaver for another day.

Without further ado we struck off with three jumps each on the fourth day, two-thirds of the course doing their first free-fall, all of which were well up to standard. Injury score to date was one slightly sprained ankle, caused by the appearance of a monsoon drain at the crucial stage of returning to solid earth. The same man did not jump again, due to increased pain over the last few days of the course.

At this stage, having done far more than was expected of him, Capt Gravette-Ball and his air technician departed for Singapore in the Beaver with our thanks and best wishes.

The fifth day started at 6.30 am with the appearance of WOII Bushby, QHI from FIE, flying a Scout supplied by 11 Flt AAC. We were delayed by early morning mist, but struck off at 0830 again with another hard day ahead.

Over a period of a couple of days we had a persistent wanderer among the students; a jumpmaster's nightmare. No matter where he exited the aircraft, he would always land off the airfield somewhere. His score in six jumps was two landings in 75 Workshops, one on the concrete strip, one through a tree, one down a monsoon drain, and one on the airfield (hurrah). After inquiries had been made it was decided that he must have had a girl friend riding around the airfield on a bike. No other explanation was feasible, because of the lack of pattern to his escapades.

The day was also marred by two reserve deployments. The first by a student who rolled over when he pulled, causing a spinning malfunction. He landed safely. The second was slightly more serious, with Cpl Mardle jumping a brand new Para Commander in an equally brand new Crossbow piggyback, picking up a malfunction in the top of the canopy and another in the bottom. He managed to release the main canopy before deploying the reserve after two attempts to clear the malfunction by pulling down on the steering toggles. The static line deployment system on the reserve worked perfectly, and he landed safely down a monsoon drain (which seemed to be the 'in' to land) but here much sadder news of the PC. Big holes burned in top and bottom of the canopy ensured that it would have to have one or two panels replaced, which couldn't be done at Kluang, there being no PC material available. The cause of the malfunction was not established, but my own opinion was that the skirt panels and crown lines were involved. Burns on the front panels suggested that the forward left skirt panels had entangled or wrapped around the front of the canopy, pulling and holding in the front. Coloured nylon burns on the crown lines suggested a half hitch by them on the upper part of the canopy, again shown by burn holes. At this point I should mention that a short narrow sleeve was being used, manufactured by Pioneer and sent with the canopy. The crown lines were stowed on a little cloth platform in the same way as the main rigging lines.

I might add that Cpl Mardle packed exactly as instructed by Pioneer's illustrated packing instructions. My suggestions to him were: 1, to fold the skirts, not across the rigging lines as shown, but on either side, leaving the channel clear and ensuring that none of the panels were inverted; 2, to figure of eight the crown lines into one retainer band; and 3, to fit a sixteen-foot retainer line and stow that also with one retainer band. Personally I don't like the short sleeve on a PC, but he seemed pleased with it. What a choker, to spend a year in Vietnam saving his money, and to blow up a PC on the second jump!

So ended the fifth day, with everyone very tired.

'Up at the crack of', as the saying goes, only to be

greeted by our old enemy the mist, and two Malaysian Caribou aircraft trying to land on the strip through it. At one stage they were flying opposite ways around the circuit at about 200 ft AGL and all were waiting for the big bang. The Scout pilot, Major Holtom, remarked that he was glad he was out early that morning, because it looked as if the downwind leg was over his house. Eventually they both appeared through a couple of gaps and landed safely.

The day went very well, and the maximum amount of jumps scheduled for the day were obtained without mishap, except for the happy wanderer, whose total for the day was: one landing in the Gurkha Married Quarters, one on the concrete strip and one through the branches of a tree. The comment from the Instructor was that the individual concerned didn't have too many brains, but he sure was tough. Training finished at 1500, and all chutes were packed up ready for the next day which unfortunately proved to be too windy. The course thus ended at 1200 with all kit being checked and documentation completed. Total equipment lost was one reserve handle, which was very good for a basic course. The students averaged fifteen jumps each for four and a half jumping days, so everyone was well pleased with that.

Our thanks to 130 Flt RCT for the Beaver support, 11 Flt AAC for the Scout, FIE for the pilots, 75 Aircraft Workshops for support and accommodation, Parachute Regt Free Fall Club for the umbrellas, Gurkha Para for man power and vehicles, and HQ FARELF for support and approval. Our thanks too, to all individuals and units not mentioned, but who contributed to the success of the course.

I think readers will appreciate the difficulties out here just to train a few students, but it can be done, and further courses are planned. It is amazing that with parachuting either one thing or another is against you, but isn't it quite a thought to have no problems obtaining blue skies and fair weather, and no problems too, obtaining aircraft (free of charge)?

So, what's the problem you may ask? Mainly equipment, so once again many thanks to the Parachute Regiment, for sending out the equipment to help us to run a successful basic course.





Food for thought

John M. Patrick, 'Black Knights 7 R.H.A.'

Watch out! Here comes the first of many. Very few members seem to be writing articles, so I thought I might help out.

I seem to have spent much of my spare time last year doing demonstrations so what better subject to write about? Besides there are one or two points which I feel quite strongly about.

During last season I watched several teams in action and spent some time discussing demonstrations with both parachutists and spectators. In particular I talked to spectators who had had the chance of comparing two or three different teams giving demonstrations. Often of course I talked to show organisers who also had the opportunity of comparing demonstrations, especially fees.

Free Fall Demonstrations at the moment are 'IN', certainly as far as the public are concerned. This is of course a good thing for sport parachuting as it does give the sport a lot of publicity. I can't think of any other means which gives the sport greater publicity. However a lot of publicity is not necessarily good publicity. How often do you read 'Parachutist hits pylons' or 'Display jumper lands on car'.

Just to find out how much parachuting display work was done during 1969 I contacted the offices of the two Divisional Controllers (Civil Aviation) of the Board of Trade. By way of background information England is divided into two divisions of responsibility. The dividing line between the Northern and Southern divisions is roughly drawn following the county borders, between the Bristol Channel and the Wash. During 1969 in the Northern division there were 122 displays made by 13 teams. In the Southern division there were 110 displays made by 20 teams. These figures of course do not include demonstrations made on Government or Licensed airfields. The Board of Trade estimated there were in addition approximately 18 displays in the Northern and some 50 displays in the Southern division performed at air days and shows on Government or Licensed airfields. In total there were approximately 300 parachuting displays made in England during 1969 which were carried out by 28 display teams. It is perhaps interesting to note that only five teams carried out displays in both the Northern and Southern divisions, four of these being military display teams.

As you will see there were a great many demonstrations given by a considerable number of teams. It's good to see so many teams doing displays as of course competition is a healthy thing for the sport. I wonder though were there 300 satisfied show organizers? 'Are Display Teams really giving Show Organizers value for money?' If they aren't there is going to be a very limited future for them and for other teams as a result. How many display teams are asked back again by show organizers even though it may be some years later? If they or other teams aren't asked back then it won't be long before we all run out of shows. A possible reason for this might well be that parachutists are more concerned about furthering their own parachuting achievements rather than putting on a good display for the spectators.

By and large parachutists make poor judges of spectator requirements, often they are too concerned with the technicalities of it all. Just because it's difficult to do doesn't necessarily mean that it's good to watch. Whilst on the subject of watching, the number of times I have heard display jumpers say 'Oh yes, that was a great display, we got 10000 ft and made a three-man link out of it' or words to that effect. Frankly if spectators are not used to looking at falling bodies, they won't see a thing if you exit above 8000 ft at the very maximum. All you will do is put up the display costs with higher aircraft fees, and dissatisfy your spectators and show organizers into the bargain. Many spectators aren't very interested until they can recognize the falling dot as a human body. Often time is better spent planning good canopy work with smoke trail patterns as opposed to all the technicalities of complex relative work. Invariably in this country either due to Met or Air Traffic you will be lucky to get above 5000 ft anyway.

How many display teams, I wonder, very carefully select their jumpers and then just grab anyone to do the commentary, that is if they even bother with a commentator. With the best jumpers in the country and a poor commentator the demonstration can be nothing more than average for the spectators.

I feel that with so many demonstrations going on a word on the safety aspect of it all might not go amiss. It is surely only a question of time before there is a serious accident or fatality. It could well be that whilst things are going smoothly we should look rather more carefully into the regulations and decide whether they are right up with the times. I would firstly say that I think that Section XXI of the BPA Regulations which covers parachuting displays is particularly well written and not only does it cover the Regulations as such, it is particularly constructive into the bargain. However I think perhaps display parachuting has travelled a long way since they were written.

Nowhere in Section XXI is there mention made of previous display experience. Has not the time come for at least someone if not most jumpers in the aircraft to have considerable experience of display parachuting? Perhaps centres might run a display course. Even display team competitions wouldn't go amiss.

Is it not time displays were restricted to D Licence holders only?

A further point I feel worth a mention is canopies. Perhaps it is time display jumpers were restricted to high performance canopies and *steerable reserves*? I know of only the Red Devils who insist that all their jumpers have steerable reserves for displays. It's a sensible precaution that many people do not consider but it certainly reduces the chances of coming down in a housing estate or on electric cables under a reserve.

Mind you if tomorrow it was regulated that all displays would be restricted to D licence holders only, carrying high performance canopies and a steerable reserve, I expect it would cut down the number of displays and display teams by half during 1970. This would possibly defeat the whole purpose. If however they were announced shortly but were to come into force by January 1971 then perhaps display teams would have enough time to come into line without reducing the number of displays and teams, and at the same time raising the standards of safety considerably.

Gerry Foster (Martlesham Heath Sport Parachute Club) comes home close in a display at Beccles Regatta

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GQ



'PATHFINDER'

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Nil porosity 1.6 oz. fabric canopy with forward speed of 10–12 miles per hour, a rate of descent of 15 ft. per second and a rate of turn of approximately 4 seconds per 360°. The canopy is extremely stable during the stall and recovers very quickly.

also STEERABLE RESERVE

17 ft. conical shaped low porosity steerable canopy. Rate of descent 17½ ft. per second with 220 lb., forward speed of 6–7 miles per hour and rate of turn 360° in 7–8 seconds. Canopy in 1 oz. ripstop nil porosity fabric with the blank gores of nylon net for additional safety during deployment. The nylon pack is shaped and curved as per current fashion and is available with side or centre pull handles.



Further details and prices available from:

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Amendments to BPA Regulations (1967)

Smoke Generators.

Para. 23. Securely attached to boots by *two* independent attachments so that they cannot work loose of their own accord.

CHECK LIST—BACK VIEW.

Back Pack.

Para. 26. Ripcord leading freely into housing on both main and reserve parachutes if the latter is back-mounted.

* * *

In addition to the above formal amendments to the regulations, the Safety Committee has also agreed to, and had approval for, the additional amendments as follows:

Pilot chute assist system

There was almost 100 per cent. support for the proposal that the BPA should make mandatory a requirement for some form of Pilot Chute Assist deployment by static line. By adopting this policy we will fall in line with PCA and Australian PA policies.

The system to be adopted has been left to individual Clubs, and instructors who are not familiar with the practical details (either break-tie or Velcro) are referred to the article by Major Gardener in the latest issue of *Sport Parachutist*. The system becomes mandatory from receipt of this letter.

Parachuting without instruments

The existing regulations (Sect. VIII Paras. 47 and 48) stipulate that instruments shall be carried on all parachute descents (After the old Category IV). After a great deal of discussion the Safety Committee decided that there was a case for *certain experienced* parachutists to jump without instruments. The occasions when this waiver could be exercised are limited and would usually be confined to Style training and Competitions. The numbers of individuals who will be granted this waiver is extremely limited. Permission will only be given to those who apply in writing to the Safety Committee who will give the necessary authority after consideration of the individuals proven ability. Any application should be supported by a statement from the CCI confirming the applicant's ability.

As a result of the deliberations of the Safety Committee over the past few months, the following amendments to the existing regulations have been approved and are to come into effect forthwith or with effect from the date stated. You are requested to ensure that all your Club members are acquainted with these amendments, pending individual notification:

Appendix F (Pages 51/52)

The revised new classification system is attached to this letter.

Appendix E (Pages 48/49)

Pre-jump Checks. Several of the checks have been revised or amplified as follows:

CHECK LIST—FRONT VIEW.

Main Parachute and Harness.

Para. 5. Ripcord housing not floating and unobstructed, i.e. housing to be secured to the harness not more than 3 inches from the handle end.

Para. 9. Loose ends of harness to be tucked away securely. (This is an additional check).

Reserve Parachutes.

Para. 10. Ripcord pins fully inserted through cones (check for bent pins and presence of sand or grit which would interfere with opening). This check is particularly important in back-mounted reserves.

Para. 12. Pack correctly secured to D rings by serviceable snap connectors.

Para. 13. Tie-downs securely fastened to back pack and under tension.

Para. 14. Delete.

Instruments.

Para. 17. Instrument panel correctly seated.

Personal Dress.

Para. 20. Gloves of a suitable pattern (obligatory in cold weather), fingers to be flexible enough to ensure the safe operation of main and **RESERVE** parachute.

Para. 27. Goggles (if worn) of a suitable design.

- (b) After successful completion of (a), has demonstrated ability to perform 360° turns in each direction, stopping on aircraft heading throughout.
- (iii) After instruction in the use of instruments, three flat stable descents using instruments but continuing to count (i) Two flat stable (counting throughout).

(a) Has performed a minimum of five stable 15 seconds delayed openings in the following sequence:

Category VI (15 Seconds):

- (a) Has performed a minimum of five stable 10 seconds delayed openings (counting throughout).
- (b) Has learned to maintain heading during exit and in free-fall.

Category V (10 Seconds):

- (a) Has performed a minimum of five stable 5 seconds delayed openings.
- (b) Has remained stable throughout opening on each descent.
- (c) Has looked at ripcord handle before and during the reach and pull.
- (d) Has achieved reasonable canopy handling.

Category IV (5 Seconds):

Has performed a minimum of three successful and consecutive, observed and timed static line descents with dummy ripcord (counting throughout).

Category III:

Programme.

(b) Has completed a total of 13 hours of ground training in accordance with the BPA Minimum Ground Training

(a) Has performed a minimum of three absolutely stable observed static line descents in the full spread position (counting throughout).

Category II:

Has been passed out on Basic Ground Training (6 Hours minimum) and is ready for first static line descent.

Category I:

SYSTEM OF PARACHUTIST CLASSIFICATION

PARACHUTING REGULATIONS.

Part II Appendix F (Pages 51/52)

Category VII (20 Seconds).

- (a) Has performed a minimum of five stable 20 seconds delayed openings.
- (b) Has demonstrated his ability to recover from an unstable position leaving the aircraft.
- (c) Has been introduced to spotting.

Category VIII (30 Seconds).

- (a) Has landed within 50 yards of centre of target on a minimum of three 30 seconds delayed opening descents.
- (b) Has learned to track.
- (c) Has been cleared for self-spotting up to 7000 feet.

ON COMPLETION OF CATEGORY VIII the student may be recommended for a General Exemption by his instructor.

Category IX.

- (a) Has demonstrated to an instructor in free-fall that he is fully in control of his movements, is aware of other parachutists around him and is capable of taking avoiding action.
- (b) Has demonstrated his ability to perform aerial manoeuvres. e.g. loops and rolls.
- (c) Has been introduced to relative parachuting.

Category X.

- (a) Has been cleared for relative parachuting.
- (b) Has been cleared for self-spotted descents up to 12,000 feet.

Note: Up to and including Category VI, all student descents are to be observed and timed (from exit to full canopy development) by the instructor in the aircraft.

All details of performance up to and including Category VIII will be entered in the parachutist's log book by the instructor.

Details of qualifying descents for progression from Category VIII through Category X will be entered in the parachutist's log book by the instructor.

BPA Instructors

Sect. II Para. 4(c) of the Regulations states that instructors submitting themselves for re-rating shall provide evidence of being in current practice (not less than 10 delayed opening descents in each year). This number has now been increased to *TWENTY*.

Log books

Observations have been made by many instructors during the past year on the lack of information in the remarks column of log books. This information is of particular importance to the instructor faced with a 'visiting parachutist' and is essential if the visitor is a RP holder. Many times the remarks column contains the comment 'fair' which certainly does not help the instructor faced with a man he has never seen before. Instructors are requested to ensure that detailed unambiguous remarks are entered.

White jump suits

It has been agreed that as an aid to pupil observation, white jump suits shall be compulsory for all Restricted Permit Holders. As this will inevitably involve Clubs in slight re-organisation and probable expense, this requirement will not come into effect until 1st January, 1971.

Parawings and Parafoils

Although Parawings and Parafoils are now commercially available, it is considered that insufficient information is available about their performance to give clearance for their unrestricted use.

Appreciative of the fact that this may appear ultra-conservative, and in some way retrograde, I would like to point out that there have already been two potentially serious incidents on Wings in this country, and a recent fatality in the United States (*Parachutist*—Dec. 69). A great deal of valuable information has come from the use of the Parawing by the 'Red Devils Display Team' last season (current issue of *Sport Parachutist*). The Safety Committee will consider their recommendations and will in due course issue formal regulations for 'Wings and Foils'. In the meantime, permission to use either of the above devices will only be given to very experienced jumpers after written application has been made to the Safety Committee. The experience required involves proven ability on competence to 'cutaway' the main canopy in case of a malfunction, and the carrying of a suitable reserve canopy. We are not obstructive but merely trying to be safe—remember, these chutes are still very new and function differently from anything we have had previously, as anyone who has observed the opening characteristics will agree.



Stew Cook and Peter Schofield of the Red Devils Wing Team in the Cherokee 6

Northern free-fall parachute meet

C. C. P. Shea-Simonds

ALTHOUGH the Northern Free Fall Parachute Meeting took place over the 7-8 March 1970, the build-up to it took a good deal longer. The Ravens Club had been jumping regularly at Thornbury Barracks DZ and at the end of last summer it obtained permanent Board of Trade blessing through the good offices of Bill Beckingham at Northern Division and the understanding co-operation of the Air Traffic organisation at Leeds/Bradford Airport, and the University of Bradford to whom the playing fields belong. After a small trial competition in December last it was evident that for a parachute meet of this kind to succeed, it had to have plenty of competitive support. Knowing the cynicism with which many jumpers regard trophies, a large cash prize seemed to be the best incentive for entry. It was also necessary to make the entry fees as low as possible, once again as competitor inducement. It was, therefore, with tongue in cheek, that the *Yorkshire Evening Post* were contacted with a view to their sponsoring the event; a pleasant surprise was in store. The enthusiasm of the *Post*'s Publicity and Promotions Department rose to the occasion and, apart from providing £50 and three tankards as first prize, produced some tremendous free publicity during the preceding days and came up with all manner of ideas to make the event a success. The final piece of free publicity came about when Charles Shea-Simonds, Dick Reiter and Ronnie Scott jumped into downtown Leeds right alongside Yorkshire Television for a lively, on-the-spot interview with Austin Mitchell of YTV's daily magazine programme—"Calendar".

Saturday March 7 dawned dull and misty and gave a depressing outlook for the weekend. But this initial depression was short-lived as the mist cleared away to clear blue sky. Joint Chief Judges Bill Paul and Peter Rayner presided at the briefing and shortly afterwards the first team, Black Knights 'B', were off to Leeds/Bradford Airport to emplane . . . only to return half an hour later as one any-

mous members of the team had left his reserve behind . . . (there you are, Bob, I told you I wouldn't let you forget it!) The competition was a three-man hit, run and balloon bursting event from 3200 feet and the two Chief Judges, ably assisted by the temporarily spasticated pair of Tracy Rixon and Taff Rees worked hard blowing up balloons and punching stopwatches as the teams started to pound into the soft ground around the cross. John Fargin, junior, ran many miles between the drop zone and the stats centre, bearing the latest results which, at the end of the first round, had Black Knights 'B' team clinging to a one point lead over Nomad 'B' team. The Red Devils Wing team provided plenty of spectator appeal as Kiwi Sansom attempted to disintegrate a wall alongside the DZ on landing, while the Lincoln team chose the barrack area itself as the DZ. At the end of the second round Red Devil PC team had a clear lead, in spite of RAF Sport Parachute Club 'A' team producing the highest team score of the meet (bursting their balloons in an average time of 3.4 seconds). In the third round Don McNaughton (Red Devils PCs) and Tony Unwin (Nomad 'B') both burst two balloons, repeating the unfortunate first round error of David Delsoldato (Ravens 'A'); the loss of 250 points per team was a catastrophe from which the three teams failed to recover. The third round also produced the only two DCs of the meet by Mike Deakin (RAF SPA 'A') and Bob King (Nomad 'A'), the latter being the highest individual scorer.

Sunday brought snow and mist and a decisive end to the competition after three of the four rounds had been completed. Soon it was time for the prize-giving and Mr Geoff Hemmingway of the Yorkshire Post Newspapers presented the first prize of £50 and three pint tankards (donated by the *Yorkshire Evening Post*) to the RAF Sport Parachute Club 'A' team of Tony Dale, Mike Deakin and Norman Addison. He also presented the Tetley's Brewery second prize of £30 and 3 half-pint tankards to Nomad 'A' team of



The Thornbury DZ with two Nomads doing their respective things

Pat Slattery, Bob King and Bob Hiatt. Colonel David Callaghan, Commanding Officer of 4 PARA presented the 3rd prize of £20 to the Black Knights 'A' team of Brian Jerstice, Bob Parry and Phil Cavannah. Thus ended a most enjoyable meet where, as it proved, everyone was in with a chance.

SCORES

Position	Team	1st round	2nd round	3rd round	Total
1.	RAF SPA 'A'	579	699	654	1932
2.	Nomad 'A'	646	616	635	1897
3.	Black Knights 'A'	617	511	689	1817
4.	Red Devils PCs	645	690	463	1798
5.	Golden Lions	622	444	659	1725
6.	7 RHA 'A'	608	458	640	1706
7.	RAF 'B'	624	680	392	1696
8.	Ravens 'B'	610	501	562	1673
9.	Ravens 'A'	457	572	613	1642
10.	Red Devils (Wings)	465	553	595	1613
11.	Nomad 'B'	688	535	381	1604
12.	7 RHA 'B'	620	539	318	1477
13.	Black Knights 'B'	687	295	468	1450
14.	Yorks Para Club	298	578	445	1321
15.	16 And Para (Lincoln)	118	561	564	1243

Best Team Score

RAF SPA 'A', 699 in 2nd Round

Best Times

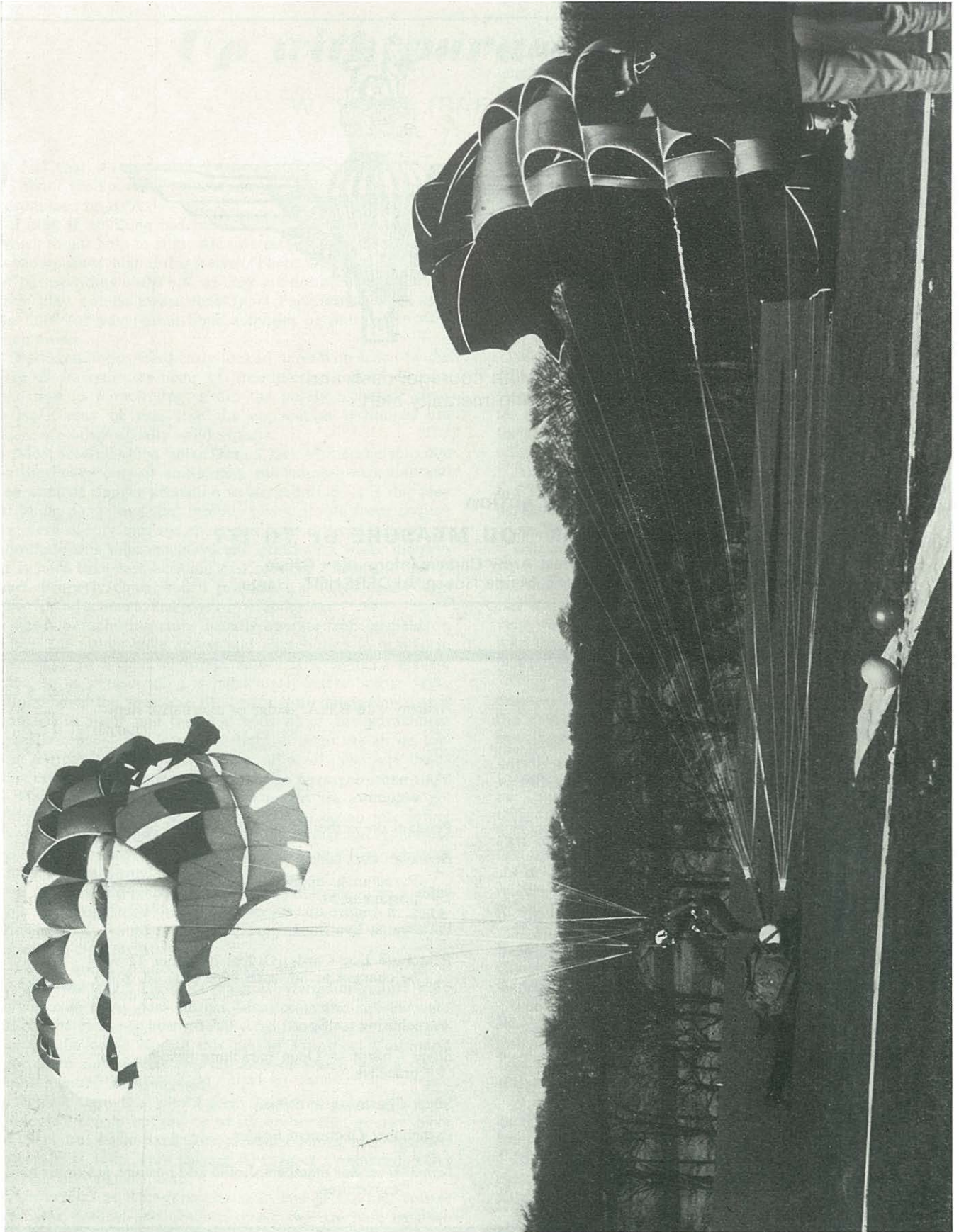
Deakin (RAF SPA 'A'), Dead Centre, 3rd round

King (Nomad 'A'), Dead Centre, 3rd round

Individual Placings

1.	Bob King (Nomad 'A')	683
2.	Tony Oliver (RAF SPA 'B')	679
3.	Brian Jerstice (Black Knights 'A')	674
4.	Mike Deakin (RAF SPA 'A')	672
5.	Charles Shea-Simonds (Ravens 'A')	669
6.	Tony Jones (Red Devils PCs)	668
7.	Pat Slattery (Nomad 'A')	666
8.	Don McNaughton (Red Devils PCs)	664
9.	Bill McLennan (Golden Lions)	663
10.	Norman Addison (RAF SPA 'A')	658

The Yorkshire Parachute Club in action – Jimmy Smith and Tony Toy on landing



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YOU WILL GET
Exciting and hard training
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For further information call at your nearest Army Careers Information Office or write to RHQ The Parachute Regiment, Maida House, ALDERSHOT, Hants.

BPA Shop

The following items are available to members of the Association only, and can be obtained from the British Parachute Association Office.

	Price <i>(including postage UK)</i>	
	£ s. d.	
Hand embroidered Blazer Badge in gold and silver wire	3 10 0	
Overall Badge, silk B.P.A. Emblem	16 0	
Overall Badge, woven B.P.A. Emblem	10 0	
B.P.A. Emblem Tie	1 0 0	
B.P.A. Lapel Badge	6 6	
Car Badge, Enamel and Chromium plate	2 5 0	
B.P.A. Car Transfers	1 6	
University type B.P.A. Coloured Scarf	1 15 0	
Tankard with B.P.A. Badge or alternative item ..	1 14 6	
		£ s. d.
Ashtray with B.P.A. Badge or alternative item (Large)		1 2 6
(Medium)		15 0
Your name engraved on the above — additional amount		7 6
Pendant on leather thong with free fall figure ..		8 6
Breakfast cup, saucer and plate		2 12 0
Parachutist engraved on each. Overseas postage of 5s.		
Parachutist Log Book		17 6
Parachute Log Cards (Orders of under 12 will be charged at 6d. each card plus 4d. post) per dozen		5 0
'Parachuting for Sport' by J. Greenwood ..		15 6
Silver Charm — Open parachute design — for bracelets		11 6
Silver Charm—Gilt dipped		13 6
Parachutist Document Folder		10 0

Note: Overseas members should add postage, sea or air mail, as required.

Up with parascending!

W. LEWIS (RAF MUHARRAQ)

I feel that it's about time someone said a word or two about the sport of parascending now that it is officially recognized by BPA.

Little, if anything has been written in *Sport Parachutist* which might help to stimulate interest and for this the parascenders must blame themselves. There are quite a number of parascending clubs but, as they are not affiliated to BPA, they may not be aware that *Sport Parachutist* exists as a medium for advertising their activities or putting forward their views.

Parascending is frequently looked upon with scorn by the freefall fraternity as being of little interest and limited application to parachuting. From the purely technical viewpoint it may be true that the application is limited but there are other equally valid aspects.

Most freefall clubs suffer from a lack of membership due to the heavy cost of equipment, the running expenses and the aura of danger attaching to parachuting. It is this idea of being dangerous that inhibits many people from enquiring very deeply into the sport and little attempt is made to eliminate this misconception and promote a wider interest. It is here that parascending can play an active and useful part. Properly controlled it provides a safe, enjoyable and easy introduction to the joys of parachuting.

Sport parachuting clubs usually operate from airfields to which the public have access and parachuting in any form is always an attraction to spectators. The sight of a team engaged in parascending is particularly interesting to spectators, since the spectacle of a parachute going upwards is unusual in itself and the ease with which the parachutist takes off, the steady low level flight through the air on tow and the gentle controlled landing all create the very desirable image of simplicity and safety.

The spectator is interested — he would like to 'have a go' himself, it looks safe enough and it will be an interesting experience. Next thing there is an enquiry at the clubhouse about the chances of 'having a go' and, as all parachutists know, the 'para-bug' is very contagious!

If clubs would recognize that parascending can be a valuable stepping stone in getting people interested in parachuting they would find this a very profitable source for recruiting club members.

Let me quote an outstanding example.

After the tragic Hastings crash at Abingdon in July 1965 in which so many parachutists, instructors and aircrew were killed, the Hastings aircraft were temporarily grounded. To occupy the crews during this period Transport Command sent them on various courses, one of which was a parachuting course at Abingdon.

At first sight this would seem to be the grossest of psychological errors but one must remember that aircrew have to carry out basic parachute ground training at prescribed intervals of time, even though Transport Command crews do not carry parachutes.

On arrival at Abingdon the reactions of the first course were the natural and obvious ones: 'we are here because we have to be but our feet stay on the ground — over to you'.

The course was handed to Training Flight who allotted Sgt Ken Jacobs the unenviable task of being the course instructor. The other 60 per cent, although they did not realize a better choice was possible; understanding, logical reasoning, gentle persuasion — he employed them to the full.

By Wednesday of the second week of their two-week course they had allowed their feet off the ground far enough to do descents from the airbrake in the hangar roof. But they were still adamant. No parachuting.

It was then we decided to try the ascending parachute.

Wednesday dawned bright and sunny and it was not too difficult to persuade them that a bus trip to Weston-on-the-Green to watch a few parachute descents, a leisurely cup of tea at the 'Drop Inn' and a well timed return to Abingdon for tea would be an acceptable way of passing the afternoon.

Alas, no parachuting was scheduled for that afternoon but Training Flight staff volunteered to demonstrate a novel parachute which had recently been acquired by the Parachute School, an ascending parachute!

Of course it was not in general use and we could not let them try it for themselves, not that they would wish to, it was not a piece of apparatus that was included in the official training programme. The demonstration went well — very well. Ken made the whole thing look like child's play with the inevitable result: one man's resolve weakened and he asked to have a go.

This was the beginning of the end, by four-thirty p.m. only one man remained adamant about keeping his feet on the ground. No attempt was made at coercion — it never is — in the end each man must make up his own mind.

Next day all but one jumped from the balloon and the following day all but two jumped from a Beverley. After the course had finished I asked them why they had changed their minds about staying on the ground. They all said it was the ascending parachute. It looked so safe and easy that they wanted to try it, and had thoroughly enjoyed it.

For myself I would say that this was 40 per cent of the reason. The other 60 per cent, although they did not realise it, was the art of the instructor.

If an ascending parachute can have such an effect on a body of men already mentally opposed to the idea of parachuting consider the effect it could have on people who are merely waiting to be tempted or talked into having a go.

The essence of success with an ascending parachute is easy gentle progression with sympathetic and understanding instruction by a person qualified and experienced in its use. This should present no problem to any worthwhile freefall club and the recruiting potential is enormous.

A club charging 10s. for an ascent by prospective members and 5s. an ascent for members could increase its club funds and club membership simultaneously.

BPA will give you useful advice and information on parascending and I am sure that Walter Neumark will be only too pleased to arrange a demonstration at your club.

Why not make 1970 a memorable recruiting year for your club — you can with the help of an ascending parachute.



MIDNIGHT MADNESS

Kerry Noble



The last committee meeting prior to the festive season posed some problems for those attending, not the least being the matter of how to entertain our members and guests at the Hogmanay Party being organised by the Northumbria Club. 'Aussie' Power suggested that a night drop be made as the 'Bewitching' hour struck. This was agreed as a wonderful idea but nobody thought that the necessary authorizations could be obtained. To our great surprise we were entirely wrong and preparations went ahead.

Although the Sunderland Flying Club bar was open at 6pm on the fateful night a group of 'C' and 'D' Licence holders were seen at the counter furtively sipping tomato juices and awaiting the selection of the lucky participants. At 8.30 the draw was made and along with Aussie as Jumpmaster Colin Holt, one of our resident Instructors, and Steve Silander, from RAF Topcliffe had their names pulled from the hat. As the remainder rushed to the bar to drown their sorrows and catch up on all their lost drinking the intrepid trio went to check their kit. Feverish activity broke out after 11 o'clock as the flarepath was laid out on the runways and the special electric beacons set around the target area. Final checks were made and by 11.50 the Northern Centre's Cessna 'Lima Echo' was airborne with Geoff Mew, our Chief Pilot, at the controls. The grounded revellers formed the inevitable circle for 'Auld Lang Syne' only to be immediately dispersed as a Thunderflash (by kind permission of 7th RHA) landed in the middle. A side result of this incident was that Lee Bambrough, the airport manager, almost had a stroke thinking the aircraft had gone in.

At this stage the timing became critical but we need not have worried, as midnight began to strike we unfortunates on the ground heard the 'cut' and, seconds later, the unmistakable sound of opening PCs. The first sight of the airborne first-footers was when they switched on torches to check their canopies and reveal their position.

Those on the ground awaited the memorable landing amidst 'Oohs', 'Aahs' and more thunderflashes (courtesy 7th RHA).

Whilst the Seventies were only minutes old Aussie led the others in for a landing not soon to be forgotten in jumping circles. The reception committee comprised of Les Richardson, Chairman of the Sunderland Flying Club, his wife, Gladys clutching the champagne and Lee Bambrough. After a short wait for Colin Holt to hobble in with a slightly twisted knee, celebrations broke out on a widespread basis. Anyone who has sampled a Northern New Year will know what I'm talking about. Whilst the jumpers were still capable of standing (which was not for long, incidentally) the occasion was recorded for posterity by Eddie Pears, a member of the flying club who produces almost all the photos for the Centre. The accompanying shots are some examples of his work. The end of the evening (morning) I am unable to record as nobody is able to recall it, but the outcome is that night jumps will take place at the centre as often as possible and we believe an unbeatable record was set for the earliest jump in any year. Any dissenters?

To end this historic rubbish I would like to wish you all, on behalf of the Northumbria Club and Northern Centre, the best for 1970.

Major Edward Gardener writes:

The trouble with sending technical articles to *Sport Parachutist* is that in the following edition there is a good chance someone will write a letter disagreeing with what you wrote; this prompts you to counter with a reply in the next edition, which may in turn spur your critic to write a justification of his views, and so on. Normally, therefore, it is better to bite your tongue—or your pen—and accept that there may be more than one satisfactory answer to the controversial subject; otherwise we may end up with a magazine serving as a battleground for private wars. It is therefore only because I feel strongly about the points at issue that I am writing this letter. I might add that, in order to try to avoid this particular situation, I sent copies of the article in question to all other members of the BPA Safety Committee for their comments before submitting it to the magazine; I only received one received one reply and cleared up the points at issue with the author to the satisfaction of both of us.

I am referring to my article 'Reserve Procedures' in the Autumn edition and the resultant letter written by John Meacock in the Winter edition. John disagrees with my recommendation to activate both canopy releases simultaneously when using the cutaway system of reserve deployment. He advocates that the jumper should hold and unfasten one set of lift webs, release the other set and then let go the first. This is, of course, the accepted method when carrying out a pre-planned cutaway jump; bear in mind that in this case that parachutist has time to carry out the drill in slow stages under a stable canopy and that the normal intention is to stream the canopy before going back into free fall. A malfunctioned high performance canopy usually rotates violently, imposing considerable centrifugal force and disorientation on the unfortunate parachutist (John is, perhaps, lucky; he says that he has never had a malfunction with a PC!). It is therefore essential to keep the cutaway drill as simple as possible, consistent with a guaranteed clean parting from the canopy. John's recommended system requires an additional and perhaps awkward action under the conditions I have mentioned; this is apparently justified in preference to the simpler drill that I described because of the risk of a hang up by one canopy release.

With 1½-shot releases there is little likelihood of the well-trained parachutist failing to carry out his part of the job; he only has to hook his thumbs into the two very prominent ring cables and pull them downwards simultaneously. What about a jammed release? If you try to activate a capewell on the ground it may sometimes catch and not break cleanly. But this device was designed to operate with at least some tension on the lift web pulling at a nearly vertical angle; test it under these conditions (in a suspended harness or with someone pulling at the correct angle on the lift web) and I defy you to make it jam even with dirt caking the device—and of course no dirt or damage would be there on a live drop if the correct pre-packing and pre-emplaning checks had been made.

However, let us take the extremely unlikely case of one completely jammed capewell. Would the parachutist be any better off holding one released set of lift webs in one hand while fighting to free the faulty device with the other? I doubt it. He would still end up having to try to deploy his reserve with the main streaming above him.

I would hesitate before disagreeing publicly with two such experienced parachutists as John and Mick Turner if these views were just my own. But the drill that I have described is backed by the majority of American opinion and is the

accepted USPA doctrine. Not that the Americans are always right; but they have had a great deal more experience than us in dealing with this problem and only settled on this particular system after a great deal of research and testing.

In passing I should mention that I have just heard of one complication which can face a parachutist using 1½-shot releases. The particular incident occurred recently in this country but I have no record of a similar problem anywhere before. The results could be embarrassing with either cutaway drill. The parachutist concerned cut away successfully from his malfunctioned main. Unfortunately he then had considerable difficulty in extracting his thumbs from the ring cables, which did not help with the speedy deployment of his reserve! He was wearing two pairs of thick gloves (and perhaps he has rather large thumbs, eh Kiwi?). Moral: don't use thick, padded gloves, especially if you have big hands. If you reckon that your thumbs are so big that they might still get stuck, train yourself to insert your index fingers into the rings from the top and pull downwards.

I also note that John disagrees with any attempt being made by an experienced parachutist to roll onto his side or back to ease and assist the deployment of a chest mounted reserve in the event of a total malfunction. I agree with him that the top priority is to pull that reserve at a safe altitude. But I would also like to draw his attention to Brian Standing's article 'Cutaway' in the Winter edition of *Sport Parachutist*; the author describes how, because of his close proximity to the ground, he was once forced to activate his reserve in a face-down attitude; his pilot chute hit him in the face which was no doubt painful. But he was lucky; imagine what could have happened if the pilot chute or suspension lines had snagged on his equipment or around his leg. He certainly took the correct action because of his altitude; but if you are preparing to pull that reserve at a normal altitude (say, above 1500 feet) following a total malfunction I would still suggest a quick half or quarter roll to facilitate a clear deployment.

On an entirely different subject, I would like to refer briefly to my article 'Get it off your Back' in the Winter edition. After the article was written and before publication of the magazine, Pilot Chute Assist became a mandatory requirement on all static line jumps. Checking around I find that many clubs have adopted the system of tying the static line loop direct to the pilot chute loop and passing the static line out of the bottom of the pack and then up to the cone ties. It works well and is even simpler than the system I described in my article as no modification is required to the equipment at all; but extra care should be taken in ensuring that the break ties on the cones are really tight to avoid the very slight possibility of the static line slipping through these ties and putting tension on the pilot chute before the pack has opened. There is also a slightly increased snagging hazard which must be considered. As I said in the article, most of the common systems are quite satisfactory; I simply picked a well proven one for the benefit of clubs and instructors who had no knowledge of a suitable system. I might add that trials at the Army Parachute Centre have shown that Pilot Chute Assist works perfectly satisfactorily with twin pilot chutes and is now used on all static line jumps; this gives a double assurance of a quick, sure deployment and saves having to attach an extra pilot chute and familiarise the student with changes in packing procedures as soon as he goes on to free fall. I can only recommend again that if your club can afford it, use twin pilot chutes on your students' rigs at least for their early free falls; it certainly helps those openings.

Is it true? Yes it is. Now we've got that over with, I would like to tell you about a great parachute centre just across the puddle from the motherland, with its long sleek buildings in white brick housing enough packing room for sixty persons, four lecture rooms, cafeteria, and a huge super bar for telling lies in. Looking out onto the 300-acre airfield, proudly waiting for its innards to be filled with parachutists, a P/Porter — and just in case that goes on the blink we have three back-up aircraft and four engineers. Great thought isn't it? It's all lies really; but for three tin huts and our Ringo, a grass airstrip, we don't do bad here in Bad Lippspringe. Season '69 was one of the best with 6500 descents completed in thirty-two weeks. With the hours flown we have averaged thirty-nine people jumping per hour.

Basically, RAPA is a Student centre but we cater for all, having 150 regulars on the books as well as the German contingent of about 20 (all students). The centre is full time and is headed by Brigadier R. Dixon MC, CRAC, Commander, Lippe Garrison; Secretary: Major J. P. Eppestone who has just joined us from England (taking over from Captain Parker, Para); Treasurer: Captain J. Mekin.

The Staff consists of myself and the following:

Instructors

Tony Cockburn (300 jumps).
George Shone (250 jumps).
Don McCarthy (800 jumps).

Assistant Instructors

Ken Railton (130 jumps).
John Brett (120 jumps).

Riggers

Ron Nevens (300 jumps).
Phil Driscoll (50 jumps).

Pilots

Ian Cornell (2500 hours).
Major Pat Musters (5000 hours).
Otto Laymher (20 000 hours).
Major Schmit Crans (1000 hours).

and during the year we had the support of the permanent staff from the A/C factory Nethers (thanks, lads!) at the rate of two per course. For some reason, one would have thought they had never seen an A/C before, the amount of keenness shown to leap from Ringo, and on windy days a quick crank and drag off the hangar roof. Not so much leaping in England these days, eh!

Bad Lippspringe is five kilometres from Sennelager and nine from Paderborn. The surrounding countryside is quite pleasant and there are excellent camping facilities. The hotels in the area are some of Germany's best, humbling our three tin huts situated in the north side of the DZ which, in fact, is a thousand yards by thirteen hundred yards. In one hut, a bar built by people on courses during the season is big enough to get fifty people in, all telling lies about (a) how they just missed a link by a hundred feet; (b) if the baton had been a broom handle they could have made it, and (c) the spotting is so bad they are thinking of issuing the poor student with a twenty-four hour ration pack, four-pence for a phone call and a compass.

The bar has helped us financially and serves as our Clubhouse. The middle hut at the moment is a packing hall big enough for six to pack on tables. In 1970 it will become our ground training room with enough space for forty lads because last season we have earned money to buy four more huts. Heating and electricity will be installed along with

showers and toilets, and a hard base will also be provided for at least eight caravans to stand on. In fact, by early spring we shall be looking pretty healthy with enough equipment to give forty students two main chutes each. For the Intermediates there are twenty TUs available and for the more experienced among us sixteen PCs. Our third and last hut is used as a parachute store. These huts are used only from March to November, since from the latter month we are snowbound. Between these months we make up for time lost.

Our pit was a bit run down at the beginning but two hundred tons of pea gravel soon put matters right and improved accuracy tremendously. I have a graph at the Centre to plot the Staff's progression through the year and we have a few promising lads. On almost every jump someone is in the pit to provide critique. To help get them sorted out I reverse the stacks so the top man goes out first and cranks, then each in turn pull on developed canopies given lots of room to move around. At this stage, it is most important they get a good unrestricted crack at the disc. Every

RHINE ARMY PARA ASSOC.

Bob Acraman

opportunity we are turning style, but for the younger members it's been a hard season trying for that small position. I often tell students: 'the only thing you can guarantee in this sport is that when you leave the aircraft you're going to go down and fast, but what you do with it makes the difference'.

1969 has been a good year for demos, doing about twenty in all which, for a student centre, isn't bad. This year should bring in at least fifty. With the Canadians giving us bags of support we should be able to cope. Pity they are pulling out of north-west Germany and going south. Amongst our staunch supporters we shall miss Len and Adrienne Freeman, a man and wife team 200 jumps plus each, along with Herb Simons, a great character and jumper who incidentally broke his ankle in the pit and was quite willing to go again for a one-legged standup! Bob Jocko, a good jumper, unfortunately was killed early this year in a light aircraft smash. (Three men in a Cessna 172; all jumpers one hundred pounds overweight; took off, tail stall and three good jumpers lost.)

At one of the demo's Bad Lippspringe Stock Car Race which is on our A/C circuit, the show promoter wanted us to throw some balloons from the aircraft at a height of 400 ft, but the wind kept blowing them away. After much thought he came up with the fantastic idea of putting one marble in each balloon then blowing them up, so they would fall rapidly to the ground, this worked a treat until it was pointed out that if the balloons burst they would do more damage than a Claymore mine, so the demo was put on with balloons but no marbles at fifty feet. Not anticipating the amount of space taken up by 500 inflated balloons and seven jumpers I climbed into the what should have been a comparatively spacious fuselage. Fifty busted balloons later I was in with no sign of the other six, but hoping they were there we took off, balloons spewing out the door like a frog laying eggs all across the countryside. Our pilot, Major Schmit Crans, Dutch Army, flew us so low we thought we were in a submarine. We managed to get the balloons out at the right place and the demo went off great.

Canadian student on 15 seconds delay



*S/Sgt. McCarthy and Ron Nevis
aboard a Scout helicopter*

*A course packing on the
grass outside the huts*



ANNUAL GENERAL MEETING

The A.G.M. will be held at :

**58 BUCKINGHAM GATE
LONDON, S.W.1**

on

SATURDAY, 9th JANUARY, 1971

* * * * *

*Details of the Programme and Agenda
will be despatched from the B.P.A. Office*

* * * * *

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and make the Secretary-General happy

Draw will take place at the Annual General Meeting at 58, Buckingham Gate, London, S.W.1
on Saturday, 9th January, 1971

Kenya Skydivers

Malcolm Morris

'I can't think for the moment where we left off, but since the last time the Kenya Skydivers' Club has been officially registered by the Registrar of Societies, and the sport is now moving ahead progressively.

As a club we own seven complete rigs, and various bits and pieces which seem to be more or less essential; four privately-owned PCs; and a couple of other strangely modified canopies.

The real basis of the club is a monthly meeting over the second weekend in the month at Lanet, Nakuru, in the Rift Valley. The *only* snag, and I mean that, is the elevation—6200 feet above sea level. Everything else is there, aircraft, pilots, a sleepable clubhouse, food, open space and good weather. It is rare for parachuting to be held up for any considerable time because of cloud, etc. At these meetings, the Saturday afternoon starts with a little bit of revision and further instruction, then jumping until about 6.30 or 7 p.m. Most jumpers camp in the club that night, although the instructor insists on spending the latter part of the night and the early morning in Nakuru—staying with friends, he says!

Sunday morning sees jumping starting at the crack of after breakfast, and usually goes on all day, into the early evening. Winds are usually predictable, although we have seen some strange goings-on in the upper air from time to time. In the club are all classes of parachuting students, the beginners sharing lessons with those more advanced. We think their hearing of these advanced techniques helps to dispel some of the 'mystique' that seems to be attached to spins, rolls, etc.

All packing is, of necessity, on the grass, to the vast interest of the local 'watu', who think the 'wazungu' are all mad anyway! The club rule is 'If you jump a chute you have to pack at least one afterwards' and so far there have been no complaints. There has been little response from Africans to participate, probably because of the cost, although an African Army Instructor, Daniel Opande, who has just joined, has 57 Army statics under his belt, and has just done his club statics. When Adrian Charlton can make it to the meeting, he and Malcolm Morris usually do a link up, followed by a couple of stand-ups just by the packing area—yes, they are possible even at this altitude. It was Adrian who took the picture that appeared in the local press of Ingrid Price in freefall, when she and Gordon were on their way back to UK via Nairobi, last year.

Our main objective at the present is to build up a good nucleus of competent jumpers in preparation for the further planned expansion of the club, and to publicise the Club and the Sport at Displays, exhibitions, etc. We are approaching the spins and loops stage with the 'big boys', and this is proving most entertaining for the Instructor, but come August we should be able to field a reasonably competent display team.

As far as aircraft are concerned we usually use those in the Cessna range, with the occasional Cherokee 6. Most jumpers here prefer the Cessna 182 or 206, and utter twittering cries of disbelief when shown pictures of 'us' on the wings of Tiger Moths (circa 1958). And when they hear of

60 second delays with unmodified canopies and no sleeves . . . 'Tell us, Malcolm, does your beard get in the way when you pack 'chutes?' . . .

Most members are from Nairobi—a couple of Frenchmen, a Dutchman, the stray Yank or so, and the rest all true-British-born-and-bred, including five girls (one reminding me very much of Sue Burgess. Sue! where are you?) and all very keen. Ken Duncan travels to these meetings from Uganda, about 200 miles each way including a frustrating wait at the Police/Customs/Emigration—Immigration/Customs/Police checks at the border each time.

We are not badly off for Pilots, either, and there is always someone at Nakuru to take us up. We have a few tame pilots in the club itself. One Aero Club Pilot still thinks there's something wrong with his plane when three bods suddenly disappear through the door.

In February this year, the monthly meet coincided with St Valentine's Day and the Nakuru Aero Club monthly competition, which was a good excuse for a party. And what a party! Plenty of food at the barbecue, good stereo taped music, and hot and cold running drink and women (and could they run!). It broke up in some disorder at about 4 on Sunday morning, and this was the cause of the rather lethargic jumpers in the Nakuru skies later that day. One of the highlights of the evening, at the end of the jumping, was a 6-man jump from two Cessnas flying in formation. I haven't seen people exit so fast for a long time.

The final tally for the weekend was 35 jumps (not many, but understandable) from statics to 40 sec, and an extra £60 for the kitty—our share of the bar and food profits, etc.

And so we progress in easy stages.

There have been a number of British troops out here lately (damned English winters, y'know!) and any jumpers out this way are always welcome at our meets. The address to write to is Kenya Skydivers, c/o P.O. Box 384, Nairobi, Kenya, and we'll try to fix you up with permits, etc.'

PARAMART

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ONE 24 ft CHEST RESERVE with pack and belly band, high speed extractor and kicker plate. Contact H. B. Bennet at Kitchener Hall, Royal Military College of Science, Shrivenham, Nr. Swindon, Wilts.

COMPLETE OUTFIT OF C.9. and B.4. PACK. As new, £40 o.n.o. Jump boots, size 8, £5 o.n.o. Reserve, £15 o.n.o. Jump overalls, £7 10s o.n.o. D. G. Gillham, Windmill House, Winterbourne, Monkton, Swindon, Wilts.

ONE C.9. CANOPY. 7 T.U. mod. Complete with back pack-harness. Reserve. Complete. Para-Boots (RAF version). Spare Sleeve and Extractor, £10 the lot. J. Woodward, Rose Cottage, Wootton, Woodstock, Oxon.

RAPIDE AVAILABLE FOR DISPLAYS, book now. Full particulars: Geoff Webster, Brake Lane, West Hagley, Stourbridge, Worcs. Tel.: Hagley 3993.

'Barnstorming' *continued from page 9*

Somehow I got packed up, by which time Jim and Bill had had a break for refreshments and were already kitting up for jump No. 2.

'Come on, Al, show us what the British are made of,' they quipped as I was hustled to the waiting aircraft. Not wanting to let Queen and Country down, I tried to look full of vigour and clambered aboard. The second jump was similar to the first, except that I actually managed to make it into the arena (though not the baseball pitch itself). Feeling quite chuffed with my improved performance, I bounced over to the others only to find that the consensus of opinion was that I had been too chicken to come any closer to the stands. Unfortunately it was true, or I wouldn't have minded.

We had done our quota of jumps and so packed up the gear and made for the aircraft. Before we left, the Editor had us pose for a photograph and then disappeared to supervise the roadblock (a man of many talents!).

For Bill and Jim, this visit had been just another display and some more cash for the club fund. For me, it had been the initiation into display jumping, an activity which demands adaptability, perhaps an exhibitionist streak and preferably a *steerable* parachute.

Jim ... on his Parawing



LIST OF REGISTERED DISPLAY TEAMS

- Parachute Regiment Freefall Team—*The Red Devils*
Northern Parachute Centre—*The Blue Stars*
Lancastrian Parachute Centre—*The Black Knights*
(*Lancastrian*)
Royal Green Jackets Freefall Team—*The Green Jackets*
4th (V) Bn. The Parachute Regiment—*The Ravens*
Scottish Div. Freefall Team—*The Golden Lions*
Nomad Freefall Parachute Team—*The Nomads*
7 RHA Freefall Parachute Team—*The Black Knights*
(*7 RHA*)
Scottish Parachute Club—*The Skymasters*
Joint Services Sport Para. Assoc. (Singapore)—*The Black Eagles*
REME Freefall Parachute Club—*The Moonwalkers*
South Staffordshire Skydiving Club—*The Black Moths*

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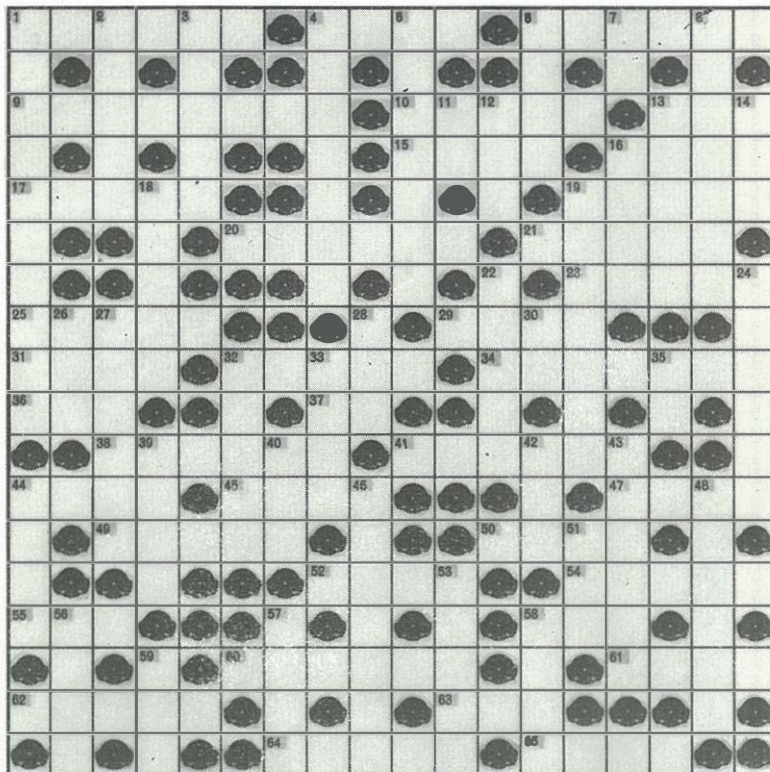
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PARA-CROSSWORD

compiled by Irene Rowe

Solutions on a postcard, please, to BPA office. First correct card examined on December 1, 1970, wins. Don't forget to include your name, address, BPA membership number, and parachuting category.



Across

1. Ideal season to jump! (6)
4. Little rebels, perhaps, make all the difference in canopy control. (4)
6. Parachutist's outfitter? (6)
9. Just the kind of snob to get his canopy upside-down! (8)
10. Take off the harness, being unsuitably ill. (5)
13. You must, your wits, to land in this! (3)
15. Sounds as though Daniel's a blessing. (4)
16. The fashion, out east, is to diminish. (4)
17. Confused lords on a binge! (5)
19. Material to bank on—but not for parachutes! (5)
20. Pebbles in the pit, not on the beach! (6)
21. It hoots—like a beautiful girl, perhaps? (5)
23. Straps into a harness and bashes, maybe. (5)
25. Do you feel out of this world when heading for it? (5)
29. Speed with which an instructor can scold a student? (4)
31. A method of waving a fellow jumper off? (4)
32. Seasonal girl to sing about. (5)
34. Oddly enough, though, you have to switch on before you do! (4, 3)
36. Encountered—in a little weather station? (3)
37. Newton would have a fit if you fell this way! (2)
38. No man is one, they say, on a Cockney's territory! (6)
41. Fall haphazardly out of a plane, maybe. (6)
44. Aerobic with a ring of truth about it. (4)
45. Sounds as though the hippy's paradise is not heard. (4)
47. Parachutist's chief hope of staying airborne? (4)
49. The kind of jump that's a shot in the dark? (5)
50. Grasp you have to catch hold of the strut. (4)
52. The odds are, when the champs are running neck and neck! (4)
54. Oddly enough, a sleeve fits like one. (5)
55. Admit you have one to yourself. (3)
58. Fear of one in the helmet gives you one in the bonnet! (3)
60. Follows footsteps—across the sky, maybe. (6)
61. That fellow will make his if he lands on it! (4)
62. Landing in it could produce a flood—of tears, maybe. (5)
63. Confused worker looks bronzed. (3)
64. Take Con away and get on with the trials. (5)
65. Flying contraption—with strings attached! (4)

Down

1. Mare splits, maybe, and carries you away. (10)
2. Angle to land here? Never! (5)
3. No matter how confused, never lose it. (5)
4. Lid came off in doctor's check. (7)
5. Two pounds signs, maybe, for early jumps. (6, 1)
6. It can put a damper on any jumper's enthusiasm! (4)
7. Emotive word—with no stopping power? (2)
8. Ten dive—that's obvious. (7)
11. Refusal means there's none. (2)
12. A cunning creature—but you can outwit him. (3)
13. Board of men examing a segment? (5)
14. Delay in seconds that loses the fight. (3)
16. Sack to catch the imagination? (4)
19. Hollow—like a non-jumper's knitting-up gesture! (7)
22. A matter of fact that gives results. (5)
24. Tens of cushions would, your landing! (6)
26. Exclamation of disappointment gets a point for fear. (3)
27. In proportion to the North, a fair share. (6)
28. Will father throw a reserve? (3)
30. Trade Union will, in short, be ideal for students. (1, 1)
32. A hundred reckless people could land this way. (5)
33. Raw and unrefined as an awakening might be. (4)
35. Send back a refusal when jumping is? (2)
39. Scatter pins and do aerobatics. (4)
40. Catch in a mesh. (3)
42. Disallow a drinking place. (3)
43. Badge to identify with. (6)
44. Disturbed pool filters slowly. (4)
46. Beginners look perfect! (7)
48. Turn upside down in order to see things the right way up. (6)
51. Time, when old, is often a barrier. (3)
53. Settles—in homes strictly for the birds? (5)
56. Don the garb, and depreciate. (4)
57. Kind of courage you can't throw in a man's eye? (4)
58. When the plane does, is the pilot financially secure? (4)
59. Sounds as if the team is ready to go. (3)



Nomad team members Bob Hiatt, Gerry Vatnsdal and Pat Slattery (Team Leader) with the team's trophies. The vehicle shown here has been used by the team to attend meets on the continent and at home and was provided by the Ford Motor Company under the Ford policy of Support for Sport

THE NOMAD TEAM

The Nomad team is probably the most travelled competition team in the UK. During the past season they have attended meets at Portoroz (Adriatic Cup), Lille (Style Meet), Lebach (International Meet), Turkey (International Meet). In addition Pat Slattery, the team leader attended the Mozambique International Meet as a judge. Bob King, Bob Hiatt and Dave Sayage of the Nomads were members of the training squad travelling to Germany for the pre-World Championship selection training. Nomad has had a very successful season but Pat Slattery, who gives so much time and effort to the sport, just cannot shake off the 'jinx' which seems to haunt him at the Nationals.



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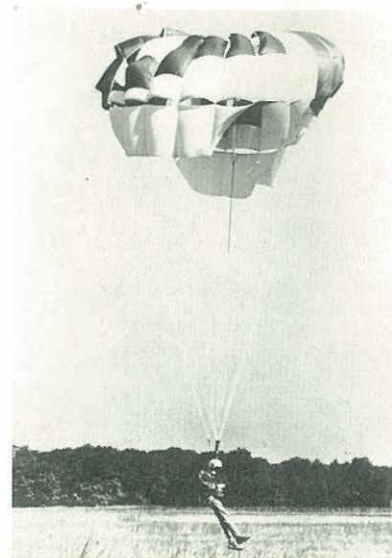
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