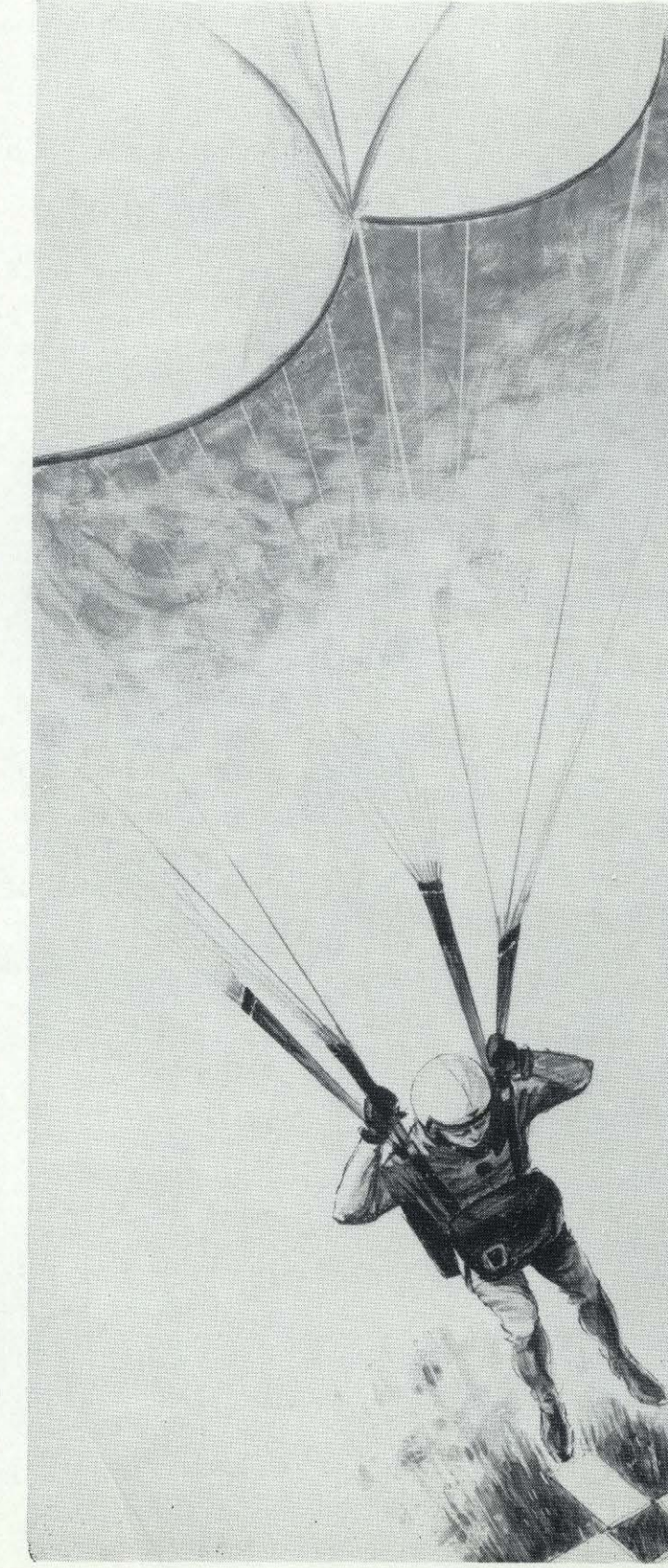




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Sport

Vol. 8 No. 3

Parachutist

EDITORIAL

The article on Styles, from the Soviet Aviation Sports Magazine Krylya Roding which as you will all know roughly translates to Wings Over the Motherland.

The author Vladimir Gurniy, has excellent qualifications being for some years a leading Soviet International Team member, the 1968 Style gold medal winner, and 1970 bronze winner.

Those of you with competition ambitions will I hope find the article of some use. The study of this technique, and practice both in the air and in the suspended harness has enabled the newer competition jumpers as Tony Born and John Kemley to achieve impressive style times in the low eights, without the necessity of amassing hundreds of training jumps, (witness Born's 8.6 series at the 1970 British Nationals with only five hundred jumps of all kinds).

Great care should be taken to ensure sufficient altitude for the intended series. Unless you have mastered the technique, you are not advised to dive into the first turn as fig. 2. The crouch position as in fig. 1, will obtain a terminal speed, quite sufficient for a sub nine series.

The article is translated from the Russian so some of the phrasing is possibly a little strange. Where Gurniy writes 'Employing the entire body area' as in fig. 3, it should be remembered that the head should be returned to the central or as Gurniy describes it the 'neutral' position before attempting the back loop. To attempt the loop with the head looking to one side will result in the shoulders following the head and the body rolling to that side.

His reference to 'Unstable equilibrium while maintaining longitudinal and lateral stability on the brink of a breakup,' means maintaining the tight position before the turns and loops, which is a position close to instability. However this near instability makes it much easier for the jumper to shift the body from rest.

As the tight position makes the turns faster, so it also affects the back loops, in that with the knees drawn up to the reserve you lose some of the lift you would obtain from falling in a less radical position when you begin the back loop. That is falling with the legs knees to the reserve you need a powerful arm movement combined with the head action to compensate for the loss of the leg action to rotate the body. Fig. 10C.

J.M.

Front cover photograph by Lou Johnson. Using a half frame helmet mounted HAND OPERATED camera. Lou has to position himself to start filming, then shift both hands to his helmet for each shot. The legs are used for positioning and control. Dunkeswell. 10th October 1971

Aircraft SKYVAN

Southwest Aviation.

Jim Crocker
Sally Cain
Charles Shea-Simonds
John Middleton
John Thomasson

John Shankland
Mike Bolton
Steve Talbot
Clive Rumney
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Cameraman Lou Johnson

Swiftly and Precisely

By V. GURNIY, Master of Sport, USSR, International Class

(Translated from Krylya Roding)

WHAT ARE THE TIME LIMITS FOR EXECUTING A SET OF FIGURES?

In a free fall, the human body is subject to the laws of aerodynamics. Aerial acrobatic figures executed within the defined limits of the rules are alternations of figures in horizontal and vertical planes. By using the laws of aerodynamics to specific body positions (within the limits of the rules), we can determine what conditions are dictated by aerodynamics for executing the fastest figure and, hence, what techniques should be used in executing the components of a set of figures: the minimum theoretical time for one figure (a spiral, somersault) is approximately 0.8—0.9 seconds; hence, the minimum theoretical time for a set is 4.8—5.4 seconds. However, a person's actions cannot be instantaneous. Theoretically he cannot fulfill all the requirements of aerodynamics. Doubtless, he is faced with errors in execution, and because of this the actual time is more realistically around 1—1.1 seconds for one figure and 6—6.6 seconds for the set.

ARE THESE ROUGH FIGURES REALISTIC?

Implementing the basic conditions of aerodynamics in a set as well as employing the method of analysis and improving the elements of a set on the ground and in the air permits individual jumpers to achieve times of 6.3—7.5 seconds (and 7.2—8.5 for the women). Times already achieved give the answer as to whether these rough figures are realistic or not. Naturally, times of less than 7 seconds for the men and 8 seconds for the women can be achieved only by jumpers who have mastered the nature and skills of such things as speed, dexterity (co-ordination), smooth orientation at any velocity and in any plane, filigree technique and by jumpers with an ability to perform accurately, speedily, and vigorously at a needed moment.

WHAT CONDITIONS DO AERODYNAMICS IMPART TO THE MAXIMUM SPEED OF AN INDIVIDUAL FIGURE AND, SUBSEQUENTLY, OF A SET OF FIGURES?

Let's examine two figures of the modern set—the spiral and the somersault (reverse).

SPIRAL. In order to execute the spiral in the minimum time it is necessary to observe simultaneously the following conditions dictated by aerodynamics:

EMPLOYING THE ENTIRE BODY AREA (both arms, head, chest, thighs, lower leg, feet as in Fig. 3. In this the thighs will be an effective area when bent under at 90° at the hip joint; this requires "crouching").

GREATEST PRESSURE ON A SINGLE AREA OF THE BODY. This is possible during high vertical speed achieved by crouching during acceleration (Fig. 1). The greatest speed is developed in a "delta" position with the head down (Fig. 2). To execute a set following the "delta," the jumper assumes the crouch position (Fig. 1). **PRECISE ARRANGEMENT OF BODY AREAS IN MOST ADVANTAGEOUS ANGLES.** (Chest, bent

"wing" arm, straight "guide" arm, parallel knees and thighs of both legs, maximum bend at the knees and hip joints at a 45° angle relative to the oncoming (air) current (Figs. 3 and 4).

MINIMUM SHOULDERS FOR DURATION OF ENTIRE SPIRAL WITH FULL USE OF ALL (BODY) AREAS (Figs. 3 and 4).

UNSTABLE EQUILIBRIUM WHILE MAINTAINING LONGITUDINAL AND LATERAL STABILITY ON THE BRINK OF A BREAKUP. The more unstable the equilibrium is the easier it is to move a body from a position of rest. To achieve this position it is necessary to raise the centre of gravity above the centre of pressure. There are two ways: a crouch with arms extended ahead (Fig. 5); or moving the reserve chute to the back (Fig. 6).

QUICK INTRODUCTION AND REARRANGEMENT OF (BODY) AREAS WITH PROLONGED USE IN ACCELERATION AND BRAKING. This depends on an individual quality of every jumper—quickness. The better his reaction then the longer he will have to use his body in acceleration and braking by the fast shifting of the body areas.

The conditions dictated by aerodynamics reveal the following technique. When accelerating, use a maximum crouch or the delta (with the last crouch before beginning the set) with unstable horizontal position (Figs. 1, 2, 5 and 6). When executing spirals (taking into account the fast positioning of all body areas at advantageous angles and the desire to quickly move the body from a position of rest) the jumper makes a strong jerk with a curve of the body to the side of rotation. The "guiding" arm is snapped into a 45° angle ahead—above—to the side relative to the body. The legs are completely pulled up throughout the spiral.

All body positions depicted in these diagrams have been proven in practise. They have brought out the technical features for all sportsmen as well as some muscular sensations. Some of the main ones are: the shifting of the body areas when braking (assuming a position opposite to the spiral) is done by means of a neutral crouch position drawing an arm and leg in to the body (Fig. 7). From the position in Fig. 7B, it is far easier to shift into an opposite spiral than from the position described in Fig. 8B where the jumper must press down on the air stream with his straight arm. This is very difficult.

When braking, the jumper should have the sensation of "gathering in" with his guiding arm. Also, when the legs are rigidly and correctly in place when braking, there is the sensation of a strong pressure from the air current on the legs.

All areas of the body during the spiral must be positioned rigidly, accurately, and simultaneously otherwise the air current pressure cannot be used fully. It is necessary that all poses (Figs. 3 and 4) be firmly held throughout the start and braking.



FIG. 1

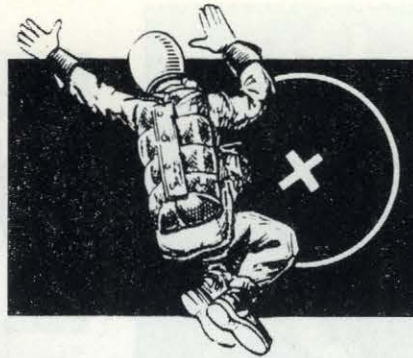


FIG. 3

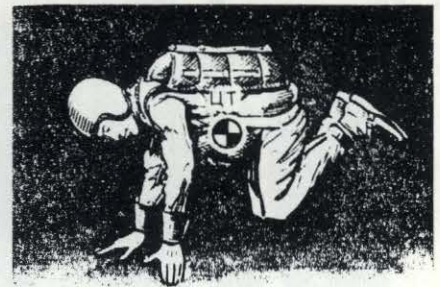


FIG. 5



FIG. 2



FIG. 4

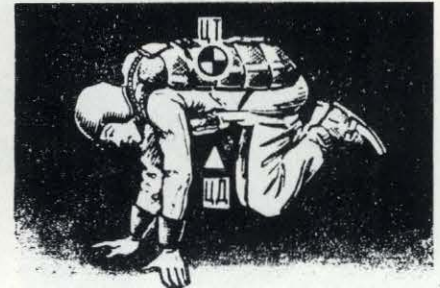


FIG. 5

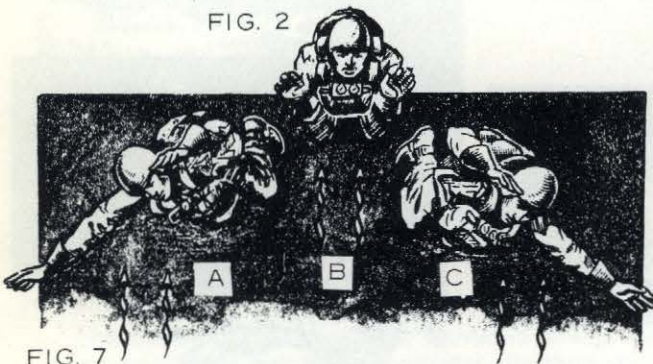


FIG. 7

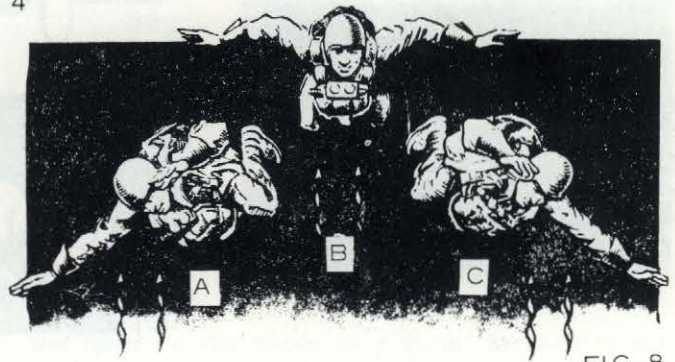


FIG. 8

Typical errors in the study of technique are: Straightening the leg at the hip or knee upon going into a spiral; pulsation—the straightening of a leg in the middle of a spiral when shifting (Figs. 9A, B and C); lowering the guiding arm to the leg (Fig. 9D); shifting to brake with widely extended arms (Figs. 8B and 9E). The mistakes most frequently encountered in a set are those depicted in Figs. 9D and 9E.

The technique in executing a spiral is extremely complex as it is done in a position of unstable equilibrium where the jumper is on the brink of losing his position. For that reason, training must be gradual. Hurried training can lead only to failure.

SOMERSAULT. Execution of the somersault (forward and reverse) demands observing all the aerodynamic conditions for the spiral, but with a more precise definition of the condition concerning the least shoulder—the least shoulder with the least body area and the centre of gravity on one side, when the most shoulder and area is on the other side of body. The aerodynamic conditions, on the whole, describe what the technique is for executing a reverse somersault. The technique has been proven in practise. The description

of the technique starts from the neutral position (Fig. 10A).

Arms which have been extended slightly are moved upwards and they press on the (air) current while remaining in the horizontal position (Fig. 10B). The head must be held straight up to Fig. 10B since the main control in the study of the somersault is visual. The body takes a vertical position, the legs remain drawn in (Fig. 10C). Pressing down with the hands on the air current, the motion of the somersault is hastened by a quick move of the head and shoulders rearward (Fig. 10D). Then the hands are instantly moved forward-upwards to the sides relative to the body and the jumper assumes the attitude shown in Fig. 10E. When rotating, the hands/arms initially meet the air current and begin to brake. The legs also come into the braking process (Fig. 10F). Thrusting the head back permits the jumper to see the earth early and orient himself. Braking ends with Fig. 10G and 10H. This somersault takes 1.2 seconds. It is done in a crouch/tuck (without thrusting the legs ahead) up to the position shown in Fig. 10F, that is, up to the point where braking starts. Basic mistakes: thrusting the legs



9A



9B



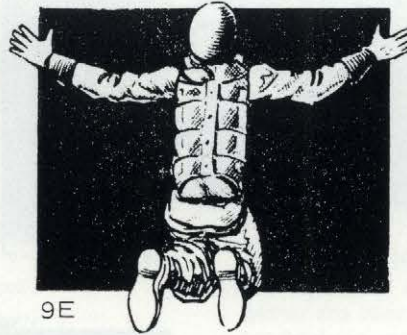
9C



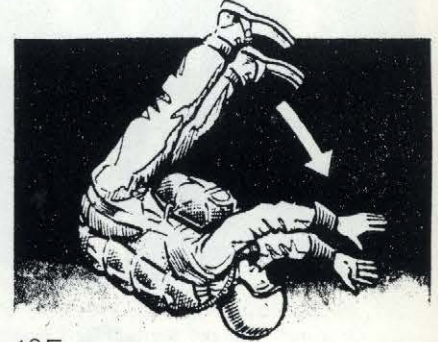
9D



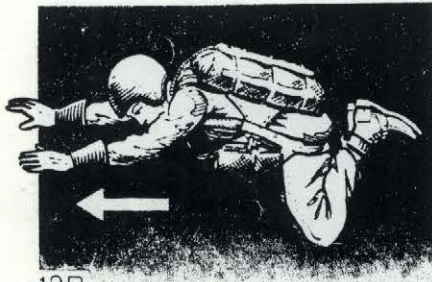
10A



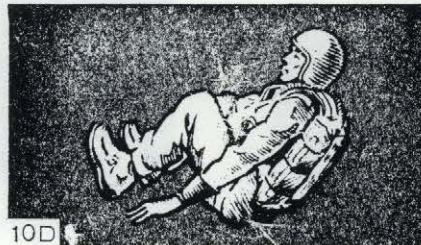
9E



10F



10B



10D



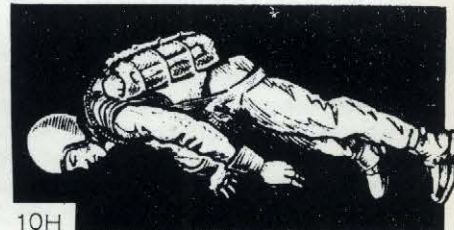
10G



10C



10E



10H

out (not tucked in) leading to a slow start; delayed movement of the arms forward-upwards-to the sides; insufficient bend at the hip joints—this all leads to late braking and then to pitching (nose up)—a pause (Figs. 11A, B and C).

CONNECTING SPIRAL—SPIRAL. Braking is actually the beginning of a spiral in the opposite direction. As soon as the jumper completes a spiral he then, without any pause, makes a jerk—a curve of the body in the other direction.

CONNECTING SPIRAL—SOMERSAULT. The spiral

is complete. At that moment the body is at rest, but the entire body area is set at an angle to the current. From this attitude, the arms are quickly extended upward—to the sides and press on the current, and the legs are tucked in (then the technique for executing the somersault).

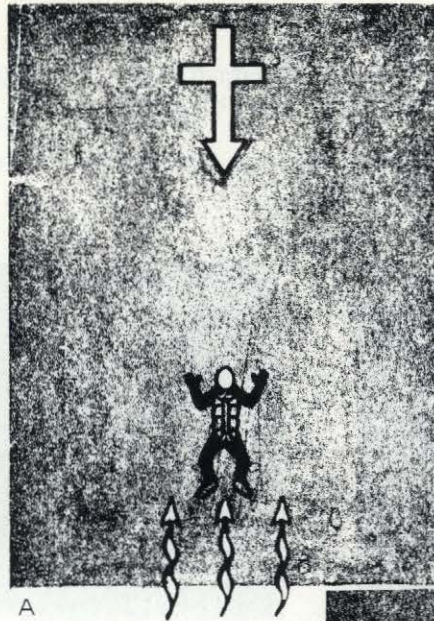
CONNECTION SOMERSAULT—SPIRAL. After finishing the somersault (Fig. 10H) the jumper must immediately assume the crouch leading to the spiral with a momentary jerk and a bend in the body toward the intended side.



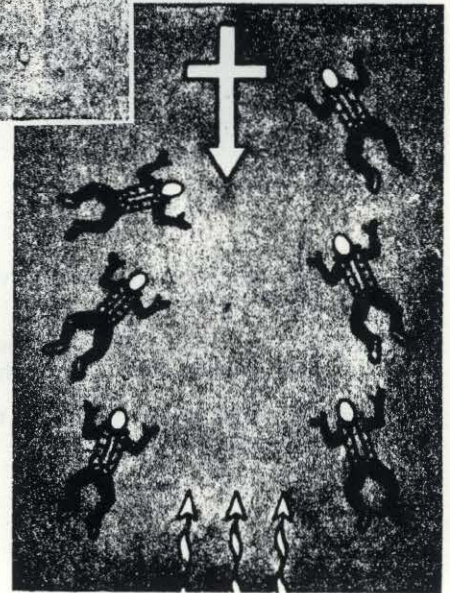
FIG. 11

The basic condition in these moves is timing. Only when one figure has been completely finished should the next one be started since the technique mentioned makes for high directional speed for each of the elements of a set. An early (hasty) start to a second element leads to revolving on two planes—that is, it ruins the set. On the other hand, never be at a standstill—do not permit a pause. This is possible only by mastering the technique for executing each element of the set individually.

In this article we discussed only the rigid technique for executing a set. The technique will give good results in timing of the set when jumping in the direction of the wind and when at the regular distance from the arrow (Fig.12A). But if conditions change, then good results can be achieved only by flexible techniques. Flexible technique involves skill (not disrupting the overall speed of the set) to change the duration and the direction of the figure depending on conditions by adjusting the timing in using body area and by changing the rigidity when setting the different body areas in each individual element. In those jumps not with the wind during which the jumper is drawn strongly to the side, it is necessary to make "back-and-forth waves" and "short waves" in order to maintain



A



B

FIG. 12

the head on the arrow in a spiral. Excellent times (without penalty points) can be made under such conditions through the use of the flexible technique (Fig.12B). Flexibility in technique is necessary, but a jumper should not engage in it until, using the fixed technique, he has achieved times of 8—8.5 seconds.

Truly, the essence of the flexible technique is the "feel for the air" which is obtained through systematic training. The jumper must study how to employ all areas of his body throughout the entire complex and to feel, at will, each part of his body at any moment. To do this, he must study well the fixed technique of the set which consists of the synchronous and accurate execution in each intermittent routine of fixed, unchanging body positions with the use of the most advantageous aerodynamic conditions.

In this article, attention has been drawn to matters relating to the modern technique of executing figures currently agreed upon. Many details require prudent clarification. It is possible that in the future the figures will be changed, new figures will be introduced, old ones made more difficult, arbitrary group sets will be created, etc. But techniques, under the control of the laws of aerodynamics, will probably remain the basis of any set coupled with its speed of execution.

The photographs below by Dave Waterman illustrate some of the more common faults in turning style. Compare them to Gurniy's drawings on the previous page.



1



2

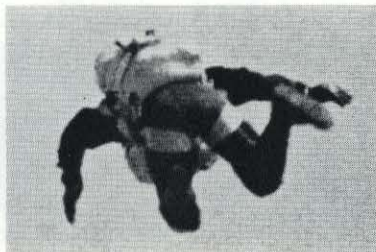


3

1. The left series. The jumper is over half way round the first left turn in a good position with the right 'wing' arm slightly out of place.
2. Completion of the first turn. The jumper looks to be stopping the turn by dragging the left arm, rather than using the body, and as a result has gone a little head down.
3. The jumper is slow in moving to the position for the right turn, and the wide arms will begin to slow the vertical speed and make it more difficult to shift the body. See Fig. 7 & 8.



4



5



6

4. Into the right turn with the right leg dragging and the 'guide' arm not extended far enough. See Fig. 3 & 7A.
5. The right turn completed, the jumper has again stopped the turn with the arms. The legs have drifted out and the entire body is extended.
6. Arms go forward for the back loop. The legs are almost completely extended. See Fig. 9C.

7. Into the loop. The right leg is dragging . . . again.
8. Second half. Left turn. Both arms out of position . . . legs flailing.
9. The jumper tightens his position and goes into the left turn. The right arm is out of place, and again, trouble with the right leg.



7



8

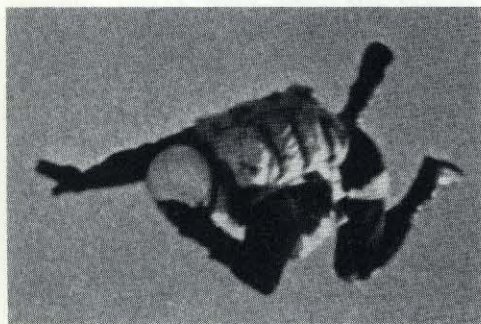


9



10

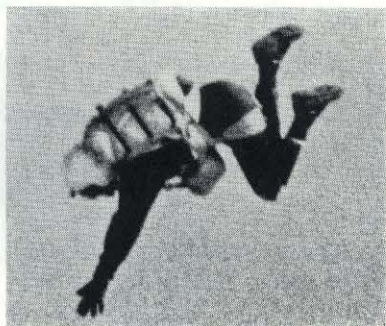
10. The final turn. The camera catches the arms moving into place, right leg trailing.



11

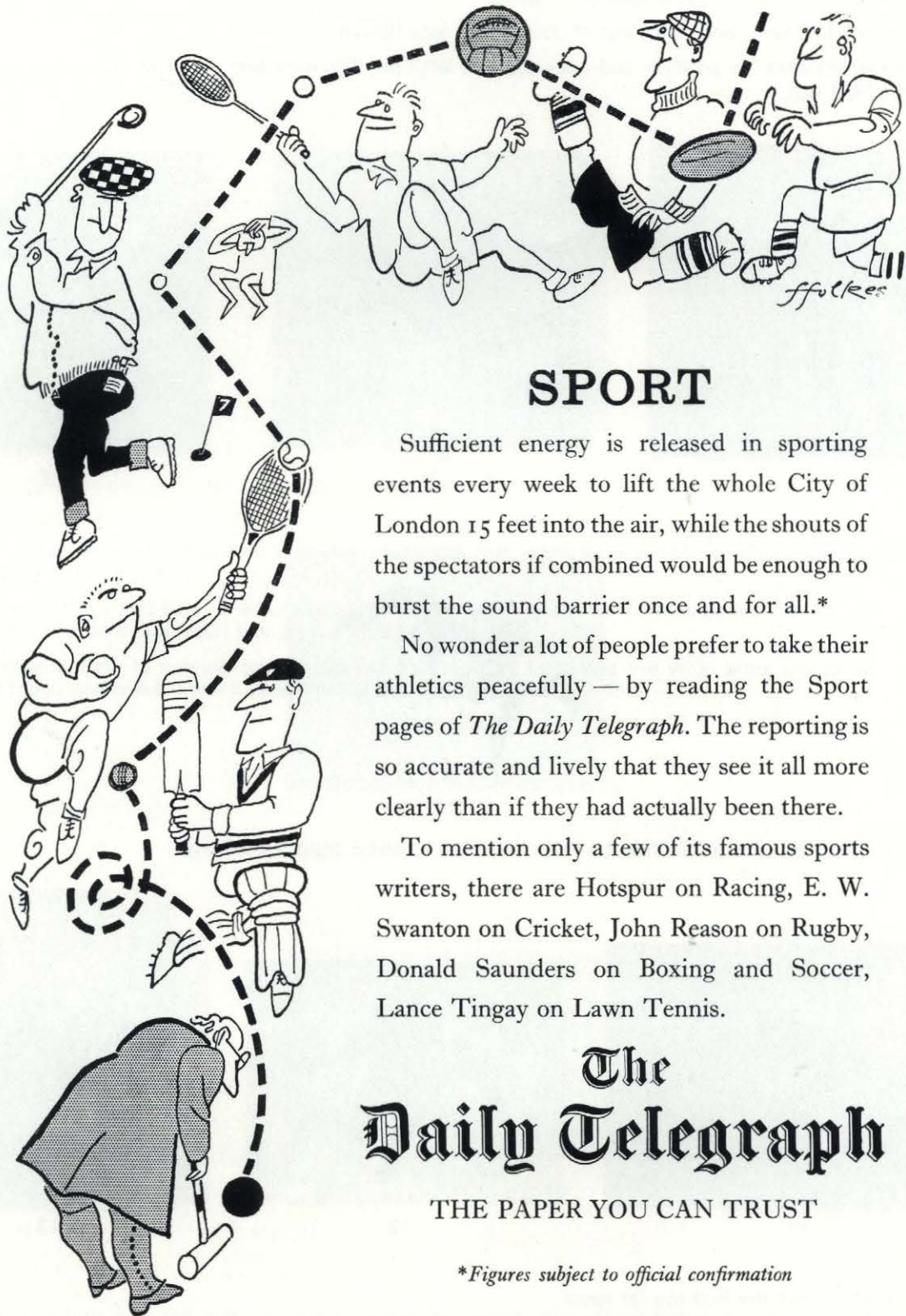


12



13

11. Good position. But the legs too far apart.
12. The final turn completed. Body extended.
13. Last back loop. Arms reach forward before pushing down to rotate the body. If the legs are well under control and up towards the reserve before the loop, it will be necessary to be quite violent with the arm movement to make a fast back loop.



SPORT

Sufficient energy is released in sporting events every week to lift the whole City of London 15 feet into the air, while the shouts of the spectators if combined would be enough to burst the sound barrier once and for all.*

No wonder a lot of people prefer to take their athletics peacefully — by reading the Sport pages of *The Daily Telegraph*. The reporting is so accurate and lively that they see it all more clearly than if they had actually been there.

To mention only a few of its famous sports writers, there are Hotspur on Racing, E. W. Swanton on Cricket, John Reason on Rugby, Donald Saunders on Boxing and Soccer, Lance Tingay on Lawn Tennis.

The Daily Telegraph

THE PAPER YOU CAN TRUST

**Figures subject to official confirmation*

THE PARCEL

In this modern age of communications, it is easy to take for granted the fact that just anything can be conveniently posted to anywhere, even, you might think, a parachute, which makes a pretty ordinary parcel by Post Office standards. My experience, however, is a study of absurdity to which occasion the British way of life rose admirably

It began with the purchase of a DH Tiger Moth at an obscure grass airfield in the South of France, at a realistic price, and after considerable haggling about the effects of the British devaluation of the time, I spent some 15 air hours en-route for the UK, sitting on a parachute which was apparently in with the deal. I sat on it mostly because there was nowhere else to put it not on account of any obvious life-saving merit which it might have. In fact, it was very well used, was of the exact pattern frequently seen in 'The adventures of Tintin' and on further investigation proved to have 18 gores, being made of silk in 1947. Its record card showed some passing attention some 10 years before and such was my opinion of it that I promptly gave it to the Air Cadet who came on the trip to manage the aircraft on the ground, e.g. hold wings when taxi-ing on concrete or in strong winds.

Only shortly afterwards, an irate letter from France asked urgently for the return of the 'irreplaceable' parachute, said to belong to some other party. I exchanged the tired 'X' type I have hoarded in the loft for several years with my cadet's recent acquisition and set about packing same for return to its alleged owner. It was duly weighed and insured at the Post Office and sent on its way. A few days after, however, a note arrived, summoning me back to the PO and there was my parcel, accused of non-regulation packing. I had to go to W H Smith, returning with sealing wax, more string, sticky tape and in particular, a seal, unique to myself for impression in the wax. A new customs declaration took into account its new dimensions and weight. Just a week later, the parcel was solemnly delivered to my address, with money back, being marginally over the max. permitted weight. The PO washed their hands of it.

Nothing daunted, I resorted to dear old British Rail. My nearest station turned out to be untraceable in the 'phone directory, so I went in person, to be greeted by a polite Indian gentleman who pointed forlornly to the patch on the wall where the telephone had previously been. All his business had been taken over by the dreaded London Transport, who had left him forbidden to issue tickets, and worse, devoid of all authority relating to parcels. Needless to say, London Transport were not interested in my problems either.

The nearest parcels office was at Hayes, so I duly drove there, a head later emerging from a sliding window, saying 'Yus, Mate?' Forms were shoved through the aperture and I filled in destination, contents and all that. 'Ere, this is foreign . . .' Yes, it was foreign . . . 'Can't go from 'ere'. I asked what difference it made whether it was foreign or not, but the system decreed that I must go to a Continental Parcels Office,

the recommended one being at Victoria. Just everything is going continental now and after voicing my views on this trend, I was advised that I might get some consideration at Slough, which has been known to export small articles from its trading estate. A train left for Slough in one minute and I was on it by a narrow margin, heavily laden with my burden.

Slough boasted a period parcels office in true Victorian style and on making myself known, the oracle was consulted. It confirmed that there was no reason why my parcel had not been accepted at Hayes, which was on the approved list. I fumed, asking how much all this was eventually going to cost. The book said £5 13s 4d to St Raphael, SNCF by passenger train. This seemed pretty steep and I ventured that I wasn't worried what sort of train it went by, as long as it went, so what about goods trains? The oracle this time proved to be at Broad St., available by telephone and it mentioned £2 10s with a little extra for insurance. I settled for that.

'Course, we can't do that 'ere 'Ave to take it dahn the Goods Yard' The Goods Yard proved to be quite removed from the station, and was reached via much of the town. I came to the weighbridge and office. 'Not 'ere, Mate, dahn the other end'

At the 'other end' my parcel was accepted with some confusion. I have the impression that no UK citizen has ever sent a parachute to the South of France previously, and a strenuous debate ensued regarding its classification. Broad St. was again consulted and office staff produced Dickensian publications which set out the procedure to be adopted.

It was officially weighed and valued at £110 for insurance purposes, since I preferred good cover against future disappearance in the hands of BR. They confirmed that this was a distinct possibility. For some obscure reason, the value had to be converted into GOLD FRANCS, a currency hitherto unheard of. This achieved via a decaying set of tables and a receipt was duly issued.

Time went by and long before I had any indication of arrival in France, the first computerised invoice arrived from a BR Accounting Office in Croydon. They have been arriving pretty well ever since, with exhortations to pay up or be subject to the usual procedure, lately defined as legal action. Of course, I have written repeatedly quoting the number of my receipt etc. *ad infinitum*. Of course, it is pointless writing to a computer, which is never prepared to allow that it might be misinformed.

The parcel did eventually arrive, taking approx. 10 weeks and I have no idea what the parachute was subsequently used for. I have often wondered if perhaps some Frenchman is ready to place his life in the hands of the 1947 silk relic I dismissed so readily.

The Tiger Moth was suitably equipped with a pair of Irvin Seat Type 'chutes for aerobatics and proved to be an excellent platform for exit with free-fall rigs.

M. J. Stapp, 4194

DEMOS CHINESE STYLE

On 23rd November 1970, twelve weary Red Devils climbed off a RAF VC10 at RAF Brize Norton after three strenuous weeks training with the United States Army Parachute Team, the Golden Knights, at Fort Bragg, North Carolina. On 30th November, five of them climbed aboard another VC 10 en route to Hong Kong. These five were Sgt Gus Martin, Sgt Bob Harman, L cpl Stu Cook, Pte Dave Whitney, and Pte 'Sooty' Standing. Exactly 24 hours later we arrived in Hong Kong, after stops in Bahrain, Gan and Singapore.

The Hong Kong Government were staging a Festival of Hong Kong for one week and the military contribution was a Tattoo at the Government Stadium every evening except Monday. Lieutenant Colonel Tony Ward-Booth, ex Commanding Officer, 3 Para, who was at that time GSO1 at HQ Land Forces Hong Kong asked the Red Devils if they could stage a demonstration as part of the Tattoo, the only problem being that he wanted us to do it at night! Reluctantly we said we could so long as conditions were nigh on perfect and the DZ conformed with BPA Regulations. Accordingly, Bill Scarratt, who was then flying helicopters with 10th Gurkha Rifles in Penang, Malaya, was dragged up to Hong Kong to recce the DZ, which he did very thoroughly and sent his report, sketches and photographs back to us saying he thought it could be done. A word to anyone thinking of doing demonstrations. ALWAYS DO THE RECCE YOURSELF! Are you listening, Bill? More on that later.

The morning after we arrived, Army Public Relations had laid on a Press Conference with the Red Devils and the Hong Kong Auxiliary Air Force who were to fly us in a rather suave Alouette III which will take four jumpers and two pilots to the moon at 1,500 feet per minute! After putting on and taking off our rigs 'n' number of times, Gus had to do parachute landings on concrete for TV and the amusement of the others. 'Nuff said!

Wednesday morning was spent gazing in awe at the Drop Zone. The arena was huge, measuring 200 yards by 150 yards, but the terrace and stands just carried on up and up to a height of 600 feet on three sides with ten-storey skyscrapers on top, all within 300 yards of the arena. Not too much of a problem in daylight but would we be able to see them at night? Five subdued sky-divers looked at each other, back at the surroundings and said nuttin!

Luckily we were to get a crack at it in daylight the following day to test the conditions.

The problems as we saw them were these:

1. For the night jumps, how to determine an opening point and how to mark it.
2. How to see other jumpers at night and how to be seen by spectators, both in free fall and under the canopy.

3. How to determine wind direction under the canopy.
4. How to cope with wind sheer below the top of the hills.
5. How to recognise overshoots if they were at all necessary.
6. Could the hills be seen at night?
7. How to get a good stack at night.

This is what we came up with:

1. We contacted the local Met Office to see if they could help. Like everyone else we met in Hong Kong, they were only too willing. At the time of throwing a WDI just before last light they sent up a weather balloon and gave us the actual winds from ground level to 2,000 feet. Thirty minutes before the jump they put up another balloon and plotted it on radar and phoned the readings through to the Jumpmaster waiting by the aircraft. If there was any significant change in speed or direction, it was then allowed for. Luckily, Hong Kong at Christmas time is blessed with beautiful weather and there was rarely change in the winds.
2. The first and last men wore 'Strobe' lights, which give off an intense blue flash every 2/3 seconds and can literally be seen for miles at night. The centre two wore two twin lens French torches, one on each arm, with the white lens facing downwards and the red upwards. These were also used for altimeter illumination and worked very well. The spectators never missed seeing us leaving the aircraft and, with the lights of the City below us, each man stood out remarkably well to those above him.
3. This was the real mind bender! Because the stadium was lit by four huge batteries of lamps, one at each corner, it was felt that smoke from RAF Sodium Flares would be easy to see. But, because of the very light winds and the arena being so sheltered, if the smoke wasn't rising straight up, it was invariably blowing towards us. Disconcerting. After a couple of jumps we learnt to ignore it until the last two or three hundred feet.
4. Another one to torque your gourd! The wind was usually North West to North East which meant it was blowing into the mouth of the stadium, striking the hills and eddying round and round the arena. Also it was usually about ten to twelve knots at 2,000 feet down to 600 feet, then anything you like to mention. It was a case of working in real close, then going round and round the stadium to give the Chinese stiff necks. This was a real problem for the Wings, which Gus and Stu were jumping, Bob, Dave and Sooty were jumping PCs. With literally no wind in the last 200 or 300 feet it would have been 'hairy' to use brakes, so Gus and Stu had to fly towards the hills at the bottom end and

turn in over the spectators when it was ridiculous. Even then we could still overshoot the target at a rapid rate and do sprinting standups. Ask Stu and Gus about their knees!

5. Hong Kong Island is crowded! Luckily, just outside the stadium on the approach side was a school with large playing fields. On one side was a race course in the next valley about 400 yards away, so you had to commit yourself early if necessary. The other two sides were the hills which were thickly wooded, so they would be soft landings if needed. It was easy to spot the overshoots at night. They were in the dark! Everywhere else was like Blackpool at the height of the season.

6. The hills were easy to pick out at night from altitude for the same reason and could be seen by the reflected glare from the lights round the stadium for the final approach.

7. As the first man, who was invariably Dave Whitney, left the aircraft, everyone started their watches, then left at two-second intervals. Then it was a case of each man pulling on 14 seconds. This worked very well on most jumps. Occasionally Gus on his Wing would get mixed up amongst the PCs (it never happened to Stu) but just moved out of the way to let the PCs sink out.

Thursday morning saw us bright and early at the Hong Kong Auxiliary Air Force hangar. All of us were to jump on this one to check it out and so we were using two Alouettes. We thought it would be three in one and two in the other, but the Senior Pilot, Flt. Lt. Smidrodwicz (known as Zed), seconded from the RAF, wanted to test a full load, so Stu Cook had one all to himself. This one had huge floats fitted. These jutted out a good 4 feet from the door and necessitated a good forceful exit! We were scheduled to jump 1045, by which time it was warming up nicely for thermals, downdraughts, etc. The WDI only drifted 400 yards, so nice light winds. Up to 4,000 feet in formation then all out in a blob with Stu following from the other chopper. The wind was blowing across the arena, so it meant coming across the hills. With the temperature up around the low eighties and the rough terrain it made for a very rocky ride, just about the worst any of us had ever experienced. Many times a head went up to look into the canopy to make sure it was still flying. However everyone cracked into the centre circle on target, so five nochalant Red Devils picked up their rigs and left to have the shakes in private.

The same evening was a dress rehearsal for the whole Tattoo to tie up the timings. From now on only four would jump each time, with everyone, except Gus, alternating on the DZ. He exercised his prerogative as Jumpmaster and jumped every time. Ten thousand schoolchildren were invited along to watch the rehearsal. We could hear them from 500 feet as a continuous scream. By the time we landed it sounded like Wembley in falsetto. The timings were so tight that the target was put out as the aircraft ran in. It looked very strange from the chopper as four powerful spotlights followed the DZ man from the end of the stadium to the centre, then

a target would appear. Four very nervous Red Devils had taken off but after a very smooth ride and good accuracy, everybody ran off in high spirits to go and swap jump stories in the bar. Bob Harman will tell you that the accompanying photo taken that night is of him stomping the disc, but it's actually his second step and he just 'happened' to step on the target. In fact, the NTKs (No Talent Kids) on PCs would have put the 'Comp' team to shame on most of the jumps. The Wings weren't usually much farther out but Gus used to spoil the accuracy until he got used to the idea of almost disappearing into the trees on the hill before turning on his final approach.

After this we did five more night jumps, having to cancel only once because of low cloud and that was on the opening night. On this night we had to drive round the stadium in an open Landrover. Apparently the Army lost a great deal of face that evening in the eyes of the Chinese. What with that and the ordeal of driving round the stadium, we could hardly cancel again. Fortunately, because the conditions from then on were excellent, the question never arose.

Drinking in the bar that night an old friend was met. Colin Wood, ex 3 Para Band and is now Bandmaster of the Hong Kong Police with the equivalent rank of Major. He had with him the Deputy Fire Chief of Hong Kong, Len Worallo, who used to be a Sergeant in the Royal Artillery. He invited us out the next day for a look round the Fire Department and had us picked up in a fire boat. After a trip round their main headquarters, where we learnt they had an average of eighty fire calls a day in an area the size of Aldershot, we adjourned to their mess for refreshments. It got very embarrassing as no money was allowed and we even had to get cigarettes on someone's tab!

The Army, being what it is, hated to see us doing nothing and had us slated for a TV appearance that night on a Chinese Simon Dee chat type programme. We had Bob Harman dressed up pulling his ripcord and Gus explaining to an English speaking Chinese comper what happened to it all. What's the Chinese for deployment sleeve? After this, while they showed a clip of film that had been taken on the daylight drop, we had to derig Bob, sprint 20 yards and sit down as if nothing had happened, all within 15 seconds to be asked the usual d a . . . questions. Has anybody ever seen 6' 1" Stu Cook trying to show the 'frog' position while standing on one leg? 4,000,000 Chinese have. This show made it a bit embarrassing to go down town to get a taxi after that. Everybody knew the 'Red Devils'. We nearly had a double decker bus on top of our taxi one time when a passenger pointed us out to everybody on the bus. And they get at least eighty in a bus over there!

From then on we jumped every evening at 2215 with no mishaps to speak of. 'Sooty' Standing was caught in a crosswind as the high man on a parachute one night, and landed in the troops car park just outside the arena, and Dave Whitney made a dive exit onto the floor of the chopper! A baton was presented to a local dignitary every evening after the jump.

One other highlight of the visit was a jump onto the local racecourse on Saturday afternoon between races. Because of the problem of keeping an area in the centre

of the course free of small inquisitive Chinese it was decided to jump onto the track in front of the grandstand. Some stand! Seven storeys high and three hundred yards long right down to the track. See the photo of Stu on the Wing flying alongside it. Air Traffic Control really did us proud and cleared us to 8,000 feet. The conditions were, as usual, perfect, light winds and cloudless. Hong Kong Island from 8,000 in those conditions is almost enough to make one forget about jumping. Four were supposed to jump with Bob Harman on the ground. Unfortunately, Sooty Standing got lazy when dressing, and when trying to put his boots on lying on his back locked his back and couldn't move. Served him right. Bob wasn't too pleased either when he saw only three leaving the chopper. Dave, Stu and Gus all landed within feet of

the target then presented a baton to the Chairman of the Royal Hong Kong Jockey Club, whereupon he invited us up to his private box for drinks. It's the only way to watch the races. Waiters keeping your glass full every time you took a sip. Closed circuit TV to watch the race on and save the effort of straining your eyes to the far side of the course. And the winning post right opposite.

If I mentioned everyone that helped us in Hong Kong it would fill the whole magazine, so, on behalf of the Red Devils, I'd just like to say thank you to HKAAP for their fabulous flying, ATC and Met for their patience and co-operation, Col W.B. for making our stay so enjoyable, and Major Douglas for his way of looking after five fussy RDs and all of the friends we made for making 'Demos Chinese Style' a memorable trip.



Weekend Parachuting at Netheravon

Parachutists wishing to jump at Netheravon at weekends are requested to telephone in advance, Netheravon 201, or the non working hours telephone number Bulford 3371, ext. 4328.

Left: Stu Cook takes the Delta Wing to The Races.

Right: Bob Harman NIGHT DEAD CENTRE.

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I LEARNED ABOUT PARACHUTING FROM THAT

I N June 1964, I left the UK for a two and a half year tour at RAF Nicosia, Cyprus. At that time, with only thirty descents and a restricted permit, having done all my jumping at Weston on The Green.

On arrival at Nicosia I met Doug Peacock, and in no time was fixed up and ready to jump. As well as jumping weekends at Dhekelia, we had a good thing going during the week with parachuting at Nicosia Airport. The Army Air Corps had a resident flight on United Nations duties using Auster AOP9 aircraft, and were very keen to drop us. During 1965, I worked hard for a General Permit and wasn't allowed to waste a single descent. Once I could track well and do all those other magic things. I was always on at Doug to give me a taste of relative work, with little success however as at that time he was hard at work practising style.

One morning I was in luck! As well as time off from the section and a servicable Auster, I was ASKED if I wanted to try some relative work. There I was then, 7 grand in this Auster, and waiting for the cut, looking over Doug's shoulder. Out he went, and I followed as fast as the back of an Auster allows. A second or two to sort things out, and I pick Doug up, just in time to see him moving off in a full track!

A little surprised to say the least, all I could do was follow. Line astern and tracking like mad for the opening point which I could see some way ahead of Doug. Having been tracking hard for some time with Doug ahead and below I glanced down at the clock to check

the height, only a quick look, and on looking ahead again for Doug I was horrified to see his pilot chute and sleeve lifting off the pack. I came out of the track at once, and into a full flare, and almost in the same movement pulled. All the time watching his canopy getting closer and closer.

Only luck saved me from a very nasty collision, as I passed his canopy by no more than twenty or thirty feet, and ended up about fifty feet below. I was convinced I was going to hit the canopy right up to the time I actually passed by it, and distinctly remember putting my arms and legs out as some sort of protection.

We talked about it on the ground, and having thought about it, I realised what I should have done. Never NEVER track after somebody using them as a heading or reference point. Should you be tracking and see a canopy opening ahead and in your flight path DON'T try to beat time and distance with a panic pull. Simply lean left or right into a track turn and go past to one side. The same principle applies should you find someone beneath you in the process of jumping, never try to beat them with a quick pull (a pilot chute hesitation could be embarrassing), just move off to one side by going into a quick delta.

This incident gave me a nasty fright when I was a very inexperienced parachutist, and by relating it I hope others might benefit from my mistake.

I certainly learned about parachuting from that!

Tony Dale D319



INSTRUCTORS AND POTENTIAL INSTRUCTORS AT THE FIRST B.P.A. COURSE HELD AT THE SPORT PARACHUTE CENTRE.

Back row left to right: John Williams, Thames Valley Air Sports, Gerry McCauley, Peterborough Parachute Centre, John Boxall, Hereford Parachute Club, Stew Cooke, Parachute Regiment, Ray Perkins, Peterborough Parachute Centre, Tony Rose, Royal Marines Parachute Club, Alister McMillan, Scottish Parachute Club, Bobby Burn, Sport Parachute Centre, *Front row:* John Norris R.A.F.S.P.A., Mike Taylor, Bobby Francis, Charles Shea-Simonds, Iain McDonald, Ronnie O'Brien, Staff of The Sport Parachute Centre, Tracy Rixon, Peterborough Parachute Centre, Dave Bennett, R.A.F.S.P.A.

REPORT

ON THE 7TH ADRIATIC CUP, PORTOROZ — 3RD/13TH SEPTEMBER 1971

Event Number 1 – Baton Relay jumps from 2,500 metre altitude, group accuracy to follow.

Soviet Union – 1st place

Great Britain – 8th place

Event Number 2 – Group accuracy jump from 1,500 metres.

East Germany – 1st place

Great Britain – 15th place

Event Number 3 – Group accuracy jump from 1,000 metres.

East Germany – 1st place

Great Britain – 14th place

Event Number 4 – Individual jumps into water from 600 metres altitude followed by a 20 metre swim to a second target.

Brian Standring – G.B.R. 4th place

Bob Hiatt – G.B.R. 12th place

Dave Savage – G.B.R. 18th place

Total number of Dead Centres scored by British Team – 8

Total number of teams entering – 18 from 13 countries.

Individual Performances

Name	Total Distance over 8 jumps	Average Distance
* R. Hiatt	13.31 metres	1.66 metres
* R. King	16.37 metres	2.04 metres
* C. May	19.25 metres	2.80 metres
* D. Savage	25.32 metres	3.16 metres
B. Standring	11.96 metres	1.49 metres

**Each of these scores includes a 10 metre zap from the first round of the 1,500 metre accuracy, when none of the G.B.R. team were able to enter the pit.*

Comments

Generally a disappointing result, but with a total of only three team accuracy and six baton pass practice jumps being completed at Lille, the team performance was by no means a disgrace.

A dramatic wind change in Round 1 of Event Number 2, 1,500 metre team accuracy gave the team a complete 'out-jump,' thus totalling 40 metres for this Round; a setback that was not possible to recover from in the overall scores.

On this particular jump the information that was available to the British Team was the 10.45 met balloon and the wind drift indicator, both of which indicated a spot of 820 metres on a heading of 038°. At this point it is worth noting that at an altitude of 800 metres the wind speed was 12.5 metres per second, and at 900 metres 16.5 metres per second.

Having drawn 5th in this event we took off at approximately 10.49 before the first team had run in, and were kept airborne for some 35 minutes during which time it was not possible to watch any of the four preceding teams.

As we crossed the target area it was noted that the wind-sock had swung through approximately 100°; a brief discussion took place and it was decided that with an upper wind of 12 to 16 m.p.s. on 030 it would be suicide to alter the spot.

Our jump was made at approximately 11.24 on the plotted opening point and resulted in a complete out-jump.

The next met balloon at 11.45 showed a new opening position of 730 metres on 330° a 68° wind change.

Immediately a protest was made to the Chief Judge under the grounds that a wind change of over 90° whilst the wind was in excess of 3 m.p.s. had occurred on the ground, and a change in excess 45° at over 3 m.p.s. had occurred in the air. Both of these situations constituted a rejump according to Section E.6 of the F.A.I. Rules and Regulations.

The judges concurred that there had been a wind change in excess of these limits but rejected the protest on the grounds that we should have observed the Italian team in the preceding aircraft.

The protest was then taken to the International Jury.

Dave Savage (Head of Delegation) and myself, were summoned to an inquiry at 8 p.m. on Wednesday, September 7th. The inquiry opened with a request from Mr. Ludevec to defer the meeting until the following morning as members of the Jury had been asked to attend a reception at 9.00 p.m.

Dave pointed out that we were both competitors and would be participating in round 3 of the 1,500 metre accuracy the next morning. The Jury then agreed to continue the meeting in the First-Aid tent at the airfield as soon as the British had completed their jump. Members of the Jury also gave a solemn undertaking that Event Number 3 would not be proceeded with until the British protest had been sorted out.

During the evening of 7th September 1971 a set of F.A.I. Regulations containing amendments that were made to these Rules for the World Championships at Bled were borrowed from Mr. Norman Heaton, United States Parachute Association.

It was discovered that the paragraph referring to windchanges had been completely deleted and had been replaced by a paragraph stating that in the event of a serious windchange the Team Captain or Head of Delegation may at the discretion of the Chief Judge contact his team using the aircraft radio and inform his team of the wind change. So, before implaning for the third round of the 1,500 metre accuracy, Savage approached the Radio Judge and stated that in the event of a wind change, Brian Standing would be contacting the Judge and requesting to use the radio. The Judge replied under no circumstance would it be possible for any of our delegation to use the radio.

As soon as we had completed our jump, Dave and myself went to find Mr. Ludevec who informed us that the British protest had been discussed the previous evening and had been rejected. Luckily, the Head of Delegation of the Norwegian team was present with a set of F.A.I. Rules and Regulations and pointed out that each team had the right to present its own protest directly to the International Jury and until they had done so, no verdict could be given.

The Jury then assembled in the First-Aid Tent and the Meeting commenced.

Dave Savage opened the Meeting by asking the Jury under what set of Regulations the Competition was being judged. The Jury replied that they were using the F.A.I. Rules with the Bled amendments. Dave then pointed out the Regulations concerning use of the aircraft radio and stated that the Radio Judge had refused permission for the radio to be used. From the way conversation went it became apparent that neither the Members of the Jury, nor the Chief Judge, nor the Organising Committee had any knowledge of the Regulation concerning the Aircraft radio. They asked us if we had requested use of the radio before implaning in the 1st round of 1,500 metre accuracy. We replied we had not, but Dave pointed out that if we had it would have been refused. The Chief Judge gave evidence concerning meteorological conditions at the time of the British Team descent. He said he was aware that something out of the ordinary was occurring at the time of the British Team jump and had posted an extra man at the anemometer to watch the wind speed during our descent. He replied that during the descent the wind speed did not rise above 7 metres a second but just after the British Team landed he had to suspend jumping for a short period because the wind increased to 8 metres a second.

We then gave our evidence in the form of the met balloon plots about the time of our jump, which clearly indicated the dramatic wind change. Dave Savage emphasised that during our ascent at no time were we able to observe other canopies in the air due to the fact we were circling at some distance from the airfield. We then called the aircraft pilot and the aircraft judge as witnesses to confirm this point.

The Jury then retired to consider its verdict. About three-quarters of an hour later Mr. Ludevec appeared

and informed us that permission to rejump had been refused, but from then on the radio facility would be available to us. This concluded the British Team's protest.

It is interesting at this point to note what happened to the four proceeding teams during Round 1 of this Event. The first to jump were the East Germans who used the 10.45 opening point and scored well. Following the East Germans in the same aircraft was the Bulgarian Team, who jumped using the same spot. The Yugoslavs, third to jump from the second aircraft, exited in the same position as the Bulgarian team, and luckily due to thermal activity the lower man of the Yugoslav team came close to the top man of the Bulgarian team. Members of both Teams had out-jumps due to the start of the wind change, but were given total re-jumps due to the closeness or nearness of the upper and lower man. The Italian Team, fourth to jump from the same aircraft as the Yugoslavs, were able to observe the Yugoslav team in the air and correct the spot, scoring well.

It is also interesting to note that if the British Team had been given a re-jump and had repeated their worst score in this event, they would have finished 6th. If they had repeated their best jump in this event, they would have finished 3rd, and, with an exceptionally good jump, could have obtained a Silver Medal.

Recommendations

- (1) If the above Regulations are still in force at the 1972 World Championships, the British Team must take with them a person who is capable of assessing meteorological conditions and passing information to the Team aloft.
- (2) Great Britain must have an F.A.I. Approved Judge in the pit to ensure fair play at all times.
- (3) That Dave Savage is delegated to attend all future F.A.I. Meetings in Paris.

Team Training at Lille, France

Whilst the Chief of the Centre was extremely helpful to the British Team in their short stay in Lille, training was somewhat hindered due to the Centre's Resident Pilot having 'flu.

When pilots were available the pace of jumping was not particularly fast. It was considered likely that considerably more jumps could have been made at Bad Lippspringe in a similar amount of time.

Also, weather conditions at Lille are such that for most of the day there is a straight wind line from 2,000 feet to the ground, which remains fairly constant. For this reason it is not a good site to train a team that is intending to jump in fluctuating winds such as those experienced at Portoroz.

Recommendation

I would therefore recommend that any training for future European based Competitions be carried out at the Rhine Army Parachute Centre at Bad Lippspringe.

Demonstration Event

Contrary to normal procedure at the Adriatic Cup, the Demonstration Event was carried out before the main competition. During this event one of the British Team's canopy collapsed over an ignited smoke grenade, causing severe damage to the parachute. It was only due to the generous assistance of the Local

A LESSON LEARNT

Over the years I have come to regard the different parts of a parachute assembly with mixed feelings, some with suspicion and some with absolute confidence. For instance, capewells and snap hooks I always treat with some care, while buckles and the harness once fitted I hardly give a second glance. This is always also true of the ripcord handle, not the cable or the pins, for these I always have my doubts about, but the handle, never.

At least not until the end of July. At the RNAS Culdrose, one of our new team members. Pt Davis was jumping a Para Commander with a B11 backpack fitted with a four pin flat handle ripcord, mounted for a right hand outboard pull. This handle had at some time been put in a vice and bent.

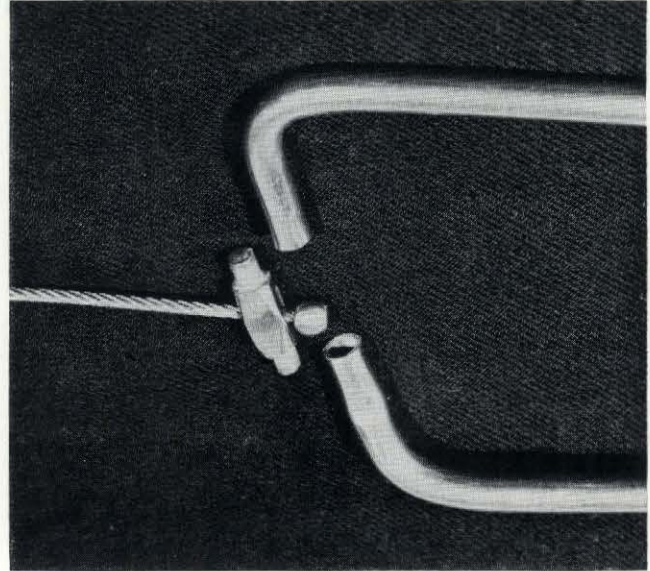
The following is Curly Davis's own description of what happened.

'The jump was the third of the day from a Wessex at 5,000 feet. I came in for the pull, pulled, and slipped the handle over my wrist.

'I waited a couple of seconds, but nothing happened. I gave another pull, then noticed that all I had was the handle. I then looked at the cable housing and saw the cable waving in the wind. By this time the adrenalin was working double time as I grabbed the cable and pulled with both hands.

'Although in a head down position by this time the canopy deployed without any further problems'

As you can see from the photograph, the handle is standard US military surplus, consisting of two sections fitted together. During the bending process the joint had fractured. The history of the ripcord is cloudy. It is just one of the many ripcords the team have in the stores and no doubt had been used many times before.



The bending was done elsewhere. This is not a team practice.

I must carry some of the blame, for although I noticed the fracture of the joint when the ripcord was issued, I thought little of it thinking the extension pieces running into the handle would extend some distance. As you can see the arms are barely half an inch long.

The lesson I have learnt is a common one in our sport. It is the crime of assumption.

Sgt Don McNaughton, Chief Instructor
'The Red Devils' Parachute Regt. Free Fall Team

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Continued from page 18

Parachute Manufacturers who worked late into the night to repair the damaged canopy that we were able to compete in the main events the following morning.

Recommendation

I would recommend that in future Competitions a

British Team only carrying minimum personal equipment does not take part in any demonstrations or fun-jumps preceding a main competition event.

Robert O. King.
Team Captain

METROPOLITAN POLICE PARACHUTE CLUB

Night Jump into Nuthampstead

PILOT: RON TURTON
PARACHUTISTS: JOE FORSTER (CCI)
ALAN RIDDICK
GROUND CREW: PETER HEWITT
DAVE STENNING
JOHN BEAN

Joe Forster and Alan Riddick wedged themselves into a luxuriously upholstered Cessna 172 at 21.00 hours on Sunday 25th April, 1971, and within half an hour each had completed his first free fall night parachute descent. The jumpers, both members of 'The Metroparas' display team, landed within inches of the target in surface winds of approximately 8 mph, under Irvin 'Skydriver' canopies.

Originally the jump was planned for Easter weekend and an exemption was granted. However, it was cancelled due to the pilot not being available and a replacement could not be found in time. A second application to the Department of Trade and Industry was approved by Mr. Sharp and Mr. Belgrove and plans got under way again.

Several weeks prior to the jump, Joe had written to Peter Sherman, Chairman, Safety and Training Committee, giving full details for his consideration and approval. Peter readily endorsed the proposals.

On the evening of the jump, the club members set up the target area. We had been jumping for most of the day, but there had been slight variations of wind. Johnny Vaughan did a streamer run at last light and jumped to prove the spot, landing within 3 feet of the cross. Target identification and a corresponding ground-to-air signal system was laid out with portable landing lights. The opening point was marked with a flashing beacon. The landing zone was a triangle with each side of some 665 yards. Each corner was marked with beacons and manned by motorised crews with searchlights. Mr. R. Tyler, a local business man and owner of the airstrip, kindly provided runway markers in the form of 'Perl Lamps' made by Perl (Lighting) Ltd., which is part of the Tyler Group, and a portable ground-to-air radio set.

Meanwhile, Joe and Alan were kitting up on the flight line. They had spent several hours of simulated night free fall training in a blacked out gymnasium. They carried illuminated altimeters, torches for checking the canopy and a whistle for ground location. For clarity of vision goggles were left off.

21.00 hours, the Cessna blasted down the runway and climbed steeply away circling the airfield. The first pass was at 4,000 feet and Joe spotted and despatched Alan after a mutual pin and altimeter check.

Joe leaned across and seemed happy with the run in. A couple of corrections, and then the 'cut'. Adrenalin poured into my blood as out onto the step I went, the opening point beacon was just below me. Stable from

the plane in a comfortable frog position, I did a slow 180° right turn to face the target area, which was easily recognisable, Altimeter check read 3,000 feet. Checked my heading, back to the altimeter and two-four. Gently in and pull and I was under the canopy facing the target. A check with the hand torch revealed no damage and I settled down for the ride. The free fall had been all too short, but most enjoyable. The 'Skydriver' handled well and at 500 feet I was entering the triangle area bang on the wind line. I found it difficult to judge height from the ground and turned off with a safe margin to have a very soft stand-up on target.

On the second pass at the same altitude, Joe got out after radio confirmation with Stanstead ATC and DZ control. I was surprised at being able to identify the airfield so easily. Spotting was not difficult and depth/distance perception unaffected. I packed Alan off on the first pass, but must confess to some unease since it was the first time I have seen a man swallowed up after only a 3-second delay, especially as his canopy inflation could not be observed. I did not really relax until the pilot leaned over and said that the ground control had confirmed by radio that he had landed safely. When my turn came, I gave the 'cut' and I stepped out onto the aircraft wheel taking my time and enjoying every second of it. I let go of the wing strut and took up a delta position and had a good look round during the brief delay. I unpacked at two-two and checked the canopy with a hand torch, then crabbed across onto the mean windline for the final approach at 800 feet. At this altitude, the ground below, which had been clear due to refraction from the low cloud base, suddenly became a bottomless pit. A combination of altimeter reading and checking Dave Stenning's vertical searchlight beam acted as a yardstick. During the last 100 feet I used my torch to measure final ground rush. Quite a few people were clustered below around Alan, so I yelled 'Heads' and touched down quite softly; wished everyone a good evening and was promptly reminded to blow my whistle to let the whole of Hertfordshire know I had landed.

Peter Hewitt, the DZ Controller, said: 'I couldn't see the aircraft, but when the engine tone changed overhead, I knew the first man was on his way, even though he was invisible. Then came the rumble of a lo-po opening, it was Alan coming in. Clear enough to make out, looking like a large bat, and I could faintly hear the wind rustling in the rigging lines as he came into land. The aircraft engine cut again and there was a moment of silence, then the familiar canopy thunder. At first it appeared that the 'chute had malfunctioned or it was a parawing. No such luck, it was Joe Forster on his TU coming in like a bag of cement. All there was left to do afterwards was a quick field pack and into the "Woodman" to down a few pints'.

MINUTES OF COUNCIL MEETING

HELD AT 75, VICTORIA STREET, LONDON S.W.1 — WEDNESDAY 11th AUGUST 1971

Item 50

PREVIOUS MINUTES AND MATTERS ARISING

The following matters arose from the previous minutes:

A. MINUTES OF COUNCIL MEETINGS (Item 38b)

Mr. Unwin again expressed the view that the Minutes of Council Meetings, or a summary of such Minutes, should be published in 'Sport Parachutist.' It was agreed that the Sec. Gen. would provide a summary for the Editor.

B. DEPARTMENT OF TRADE & INDUSTRY — EXEMPTIONS (Item 39).

The Sec. Gen. reported that Southern Div. had indicated that subject to discussions with other Divs., it looked as though some progress could soon be made towards the changing of the present system to one which would give BPA more responsibility in the control of the sport and reduce the 'paper work' for parachutists. Reference had been made to the requirement for parachuting clearance for aircraft to be annotated on the C of A. It was Mr. Unwin's view that this could be another restriction on the sport and felt that any suggested changes should be placed before Council for approval. The Sec. Gen. assured Mr. Unwin that the Southern Div. was working very closely with BPA and was in fact trying to make things easier for parachutists. Any suggested changes would be put to Council as and when they became known.

C. NATIONAL RELATIVE / ACCURACY TEAM

EVENT (Item 40). It was agreed that all Affiliated Clubs in addition to those already entered for the event which was held over from the National Championships should be permitted to enter the event when it is held in conjunction with the RAFSPA Meet on 25/26th September.

Item 56

INTERNATIONAL RELATIVE MEET — NEW ZEALAND

Mr. John Beard informed Council that he had received

an invitation to send a team (Ten-man) to an International Relative Meet to be held in New Zealand in January 1972, and that he was making attempts to form a team and raise funds. He appreciated that BPA could not be expected to finance such a team but he expressed the hope that Council would support his efforts by agreeing that the team could be named a British Team and that the BPA could be quoted in his approaches to possible sponsors. Council agreed to a British Team being entered for the Meet and gave its approval for Mr. Beard to quote the BPA as being in support of his appeals for sponsorship. It was pointed out that the BPA could not accept any financial responsibility for entry, equipment, or transportation and would insist that any team having the approval of the BPA must present itself in good order and that all members of the team must be members of the BPA.

Item 51

TRAINING FILMS AND POSTERS. Mr. Sherman reported that it was the unanimous view of the S & T Committee that steps should now be taken to have a Training Film and Posters produced for use by Clubs. Wg. Cdr. Turnbull pointed out that there could be a case for film loops or strips which had proved so successful in coaching in many other sports and activities. The Sec. Gen. agreed to ascertain what assistance may be available from the CCPR and Sports Council for such projects. It was agreed that the S & T Committee should progress the matter of Posters (possibly based on those in use at Halfpenny Green) and to consider if transparencies from such posters would be a feasible proposition.

Item 53

ANNUAL GENERAL MEETING

It was agreed that the next AGM be held on Saturday 8th January, 1972 and that it be in Birmingham; if possible, the Imperial Hotel which proved so suitable in the past should be the venue.

THOMAS SPORTS EQUIPMENT

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PUSSYCAT JUMP

by Sally Gardner

'Hello, BPA here.
Yes, this is the information department.
No, we don't have any animals as members.
No, not even as mascots.
No, no cats, no.
Well, we insist on a medical form, and that gives height.
Oh, I don't think we've anyone as tall as that!
Well, I mean, you don't often get someone over seven foot tall, do you?
What was that? Three of them. Well, I suppose we have several members that may be a bit over six foot.
Not exactly with green heads, no.
No, nor bright pink or orange. What's your query?
Just come out of a Wessex, have they? Well, yes, that is a perfectly acceptable craft for parachuting.
Well, if they landed in Wormwood Scrubs, well, that is where they wanted to be.
No, of course not. If they had wanted the zoo, they would have landed there. Our top parachutists can sometimes land on a tiny disc, you know. Accuracy is very important in parachuting.
Furry feet. Well, if the parachutists were cats, then they would have furry feet.
Nine lives has nothing to do with it.

No, we train our members to start with a static line, and then progress to free fall.
Well, if they weren't on a static line, they must have pulled their own ripcord.
OK, so they started as kittens.
I don't know.
Well, of course I'm sorry if they frightened your dog. I always thought that dogs frightened cats, not the other way round.
Well, no, I don't suppose your dog has heard that sort of language before. But I expect they were cross, it would rot the canopy, you know.
Look, hold on a minute, someone's just come in who might know a bit more about it.
Hello, still there? I've just been told that the display you saw was for the Walt Disney "Aristocats" film.
Well, the three cats had to rush from a show in Manchester straight down to the ITV studios in London for the Ed Stewpot show, and the only way they could get there in time was to parachute in.
Well, no – really just a publicity stunt.
Just three ordinary parachutists inside the costumes.
No, we can't take your dog, no.
Goodbye.'



Easily recognised left to right: Terry Crawley - Terry Silber - Terry Day



*Dave Waterman does a Moggie Pin Check, and Sean Waterman
—not too sure*

Photo's by Dave Waterman



NOTICE OF ANNUAL GENERAL MEETING

Notice is hereby given that the fifth Annual General Meeting of the British Parachute Association will be held at the Imperial Hotel, Temple Street, Birmingham, on Saturday 22nd. January 1972 at 4.00 p.m.

Agenda

1. To consider, and adopt if approved, the report of the Council.
2. To consider, and adopt if approved, the Accounts and Balance Sheet for the year ending 31st. March 1971.
3. To fix subscriptions payable by members for the ensuing year.
4. To appoint Auditors for the ensuing year and to fix their remuneration.
5. To elect the Council.
6. To discuss any special business.

October 1971.

W. Paul, *Secretary General*

NOTE: Only such business as is notified to the Secretary General at least 30 days prior to the meeting can be included under item 6... 'Special Business'.

(Articles of Association — Article 30)

PROGRAMME FOR THE AGM—The programme for the AGM (officially announced above) will be:

2.30 pm	Instructors' Convention	6.00 pm (approx.)	Incoming Council Meeting
2.30 pm	Parascending Instructors' Meeting	7.00 pm	Films
4.00 pm	A.G.M. (Agenda as published)	8.30 pm	Raffle

Bar Arrangements. A separate room with Bar will be available from 6.00 pm till 11.00 pm.

Buffet. A FREE buffet comprising mixed rolls, pork pie and pickles will be available in the Bar Room from 8.00 pm.

Bedroom Accommodation. Special Tariff Rates will be available for members wishing bedroom accommodation:

Single bedroom .. .. .	.. .. .	.. .. .	£1.90 plus 11% Ser. & tax
Single bedroom with private bathroom .. .. .	.. .. .	.. .. .	£2.30 plus 11% Ser. & tax
Twin-bedded room .. .. .	.. .. .	.. .. .	£3.00 plus 11% Ser. & tax
Twin-bedded room with private bathroom .. .. .	.. .. .	.. .. .	£3.80 plus 11% Ser. & tax

Members wishing to book bedroom accommodation may do so through the BPA Office not later than Monday 3rd January, 1972.

ELECTION TO COUNCIL—NOMINATION PAPERS—Nomination Papers are required to reach the BPA Office by Wednesday 8th December, 1971 and only those names received by that date can appear on the list of candidates for election to Council.

VOTING PAPERS—Voting papers will be sent out to members during the period 8th to 15th December, 1971 and may be returned to the BPA Office at any time before, but certainly not later than Thursday 20th January. Papers will of course be accepted up until the start of the AGM and those which cannot reach the BPA Office by the above date may be handed in at the AGM or be posted to the Sec. Gen. at the Imperial Hotel, Temple Street, Birmingham.

RAFFLE—The Annual Raffle was planned to be drawn at the AGM on 8th January but due to a change of date for the AGM it will now be drawn on 22nd January. How about a concentrated drive on selling those tickets and getting the counterfoils and money to the Sec. Gen. as soon as possible. Apart from him wanting to see the money coming in for the World Championships, it will make life a bit easier at the BPA Office over what is a very busy period. By the way, if you want more books of tickets you only have to ask.

FAI CERTIFICATES AND LICENCES—"text as already submitted"

WORLD CHAMPIONSHIPS—1972—Got any bright ideas for raising money for the 1972 World Championships? The XIth world Meet will be held in Tahlequah, Oklahoma in Mid August next year and of course we want our team in there with a fighting chance. We have some capable performers but it will take money to give them the training necessary for this class of competition. Our World Championships Committee will be pleased to hear from anyone who thinks he or she can help them in their efforts to raise the money.

BPA APPROVED ASCENDING PARACHUTE INSTRUCTORS

(AS AT 30th SEPTEMBER 1971) — (E) Indicates Examiner

BASS, P. V.	5150	FOX, R. H. (E)	5646	NEUMARK, O. W. (E)	923
BAXTER-MARTIN, P. E.	10011	GARRETT, P. J.	8945	O'BRIEN, J.	7876
BIRKETT, J.	2364	GILLETT, S. S.	9330	PRICE, A. J.	5489
BOOT, W. G.	3930	GRAHAM, I. G.	631	RUSSELL, D. E. C.	9290
BRIGGS, M. R.	8960	GREEN, J. A.	7875	SCHOFIELD, B. S.	2332
BURNS, D. H.	5509	HUMPHREY, D. J.	8978	THEWLES, F. E. (E)	6794
CLARK, J.	1584	HENDERSON, I. G.	6129	WAKELIN, A.	8952
COLEMAN, A. H. J.	8119	KATHRO, D.	9091	WALKER, J. M.	9647
COLTHORPE, B. M.	8739	KIDD, W. R.	10041	WALKER, I. P.	9392
CONNINGHAM, R. (E)	4497	LAWRENCE, J. J.	9531	WALKER, R. K. (E)	6904
DANIELS, D. J. M.	7879	LEE, B. C. A.	5929	WALSH, J. N. P.	7878
DARNLEY, J. A.	7880	MACAWLEY, A. J.	6744	WARD, D. M.	9391
De CARTIER, M.	3207	MANNING, A. S.	8944	WILSON, M.K.	5911
ELLINGTON, J. R. (E)	6590	MERCER, M. C.	8928	BEDFORD, E. E.	5067
FLETCHER, H. J. W.	6881	MOORE, M. P.	7877		

THE FIRST BRITISH TEN MAN STAR

The story starts at Grindale Field at the end of May when the nucleus of the team, Jim Crocker, Sally Cain, Charles Shea-Simonds, John Middleton, John Shankland, Clive Rumney and Steve Marosszeky were delighted to be part of Canadian Buzz Bennett's Hard Ass Star Team. During the thirty odd descents from the South West Aviation Skyvan over the East Riding Countryside the team gained valuable experience from Buzz's good humoured and meticulous coaching; but in spite of the intensity of the training, the team could not break the psychological barrier of the eight man and finished the ten days with six seven-man hook-ups, plenty of sixes, fives and fours.

The value of this training realized itself when the seven already mentioned gathered at Halfpenny Green Airfield over the August Bank Holiday weekend, and were joined by Mike Bolton, Steve Talbot, John Thomason, Bob Higgins and wandering American Pete Gruber. Jim Crocker had now taken over the unenviable job of leading the team and the first two warm up descents resulted in a six-man and seven-man respectively.

At first light the following morning the team waited patiently in the cold sunlight for the arrival of the gold braided and now be-bearded Norman Gould who had undoubtedly been adopted as team pilot; for once again his consistently fine flying and his enthusiasm for what we were trying to do, were very much part of our success.

Soon the Skyvan was winging its incredible angle skywards and Jim passed from team member to team member reminding them of Buzz's immortal words 'Play it cool and fly it tight.' A rush of cold air accompanied the opening of the tailgate and the team moved back down the aircraft. Jim straightened up with his usual remark 'It's a tweek'. Which guaranteed to all of us we were in for a bum spot! Then . . . away we

go! John Shankland pinning Steve Talbot, Jim closing third, followed quickly by John Middleton and Charles closing fourth and fifth. A pause then it's little Mike Bolton followed quickly by Clive Rumney, finally Sally breaks the team's jinx by closing eighth followed by Peter Gruber, (who had deliberately held off) breaking in ninth. Seven seconds later Shanks breaks it up and bodies track quickly away from the canopy deployment. Elation takes over and makes up immediately for the frustration of the many practice jumps that went wrong. The usual debrief follows and the team become even more determined to improve their performance.

An hour later the pre-jump ritual is being repeated; the briefing, the long walk to the aircraft, the smell of burnt Avtur, the luxurious seats, the altimeters turning relentlessly clockwise, the screeching of the Skyvan's stall warning, the panorama of Birmingham seen from the open tailgate and the sharp yaw of the final correction. We're away . . . ! The first five are as before, then it's Clive just in before Mike with Sally docking eighth again. The star rocks as Pete Gruber closes ninth and Steve is seen to make one sloppy approach before docking tenth at his second attempt; he breaks wrists and we've done it . . . just before Shanks calls an end to our very own TEN MAN! The team in order of entry were:

Steve Talbot	D 651
John Shankland	D 493
Jim Crocker	F 36 (AUST)
John Middleton	D 192
Charles Shea-Simonds	E 62 (AUST)
Clive Rumney	D 875
Mike Bolton	D 850
Sally Cain	D1928 (US)
Pete Gruber	C 274 (AUST)
Steve Marosszeky	

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CHARLIE'S BOOK

Some of you may know that Charles Shea-Simonds has produced a book on parachuting. The book has taken several years to compile and write and is a complete manual on Sport Parachuting.

From **A. C. Black & Co. of London** at **£2.25**, and at any good book-stall.

Commenting on the 2nd BPA Parascending Championships at Netheravon

First of all we must congratulate the 7th Sqn RCT on their well deserved victory and Captain Patricia V. Bass, QARNC, for her outstanding performance as the highest scoring individual.

We also congratulate all teams for their enthusiasm and for making it such an enjoyable meet. You will all be glad to hear that Graham Thirsk arrived back home two days later on his own feet, with bruises but no broken bones.

We must record our gratitude to the Officer Commanding, AAC, Netheravon and to the Chairman of the APA for permitting these second championships to be held at Netheravon and to Lt. Don Hughes and all the APA Centre Staff for their very kind hospitality and help and to Miss Hughes for bringing tea and food out onto the field.

We must also express our thanks to the 1st Bn WFR and 36 Eng.Reg.RE Parascending Clubs for the very hard and competent work in the ground organization and launching sphere.

Special thanks are due to our Chief Judge Lt. A. Price, RM, ex-Secretary and Chief Instructor of the RM Sport Para Club and a BPA Parascending Instructor who took on the task at short notice because Major R. Conningham had to withdraw due to other duties. We have asked Lt. Price to judge next year's event so that experience gained this year can be fully utilized to provide more equal opportunity and enjoyment.

Nearly every sporting competition has its problems and frustrations but parascending has to contend with more than others. The WIND will never be constant and will *NEVER BE FAIR* to every contestant and running out of time accentuates this.

We wanted to give each competitor 4 ascents and score only the best 3 but in the event some 2 man teams had a total of 9 or even 10 ascents while others had only 4, each one of which had to score. The winning team would still have won but the order of the others would have been different.

We divided up each team into an early and a late list primarily to even out the effects of weather on team scores and partly to help those teams who had only one canopy to avoid the waste of time of continually changing harnesses because we anticipated a faster launch rate.

In retrospect, it may well have been fairer to have gone right through the list until everyone had made one ascent before starting a single re-jump and before starting the second round of ascents. We may have to reconsider whether re-jumps should be permitted on account of unfavourable release points because ascenders should guide themselves with rear lift webs. There were many who made no effort to do so.

We had hoped originally to use two separate tow lines on either side of a central target but the wind

variability confined us to single line operation.

The sustained average rate of launching was however very impressive even if it might at times have appeared frustrating to waiting competitors.

Saturday A.M. practice	15 launches in 85 mins 5.65 mins per launch
Saturday P.M. comps	25 launches in 104 mins 4.2 mins per launch
Sunday all day	74 launches in 422 mins 5.7 mins per launch

18 teams entered (36 individuals) of which 11 teams and 25 individuals scored and 1 team and 3 individuals did not ascend.

It would be most helpful if club instructors would be kind enough to write me, before memory fades, to give ideas on how our championships can be made to give more equal and fairer opportunities to all in spite of the wind and the clock.

It may be useful in this context to place on record the aim and purpose of the BPA Parascending Team Trophy:-

1. It is intended to provide a national event within the BPA Championships to allow all parascenders to meet and engage in friendly competitive sport.
2. It is a 'team' event because parascending is nearly impossible on an individual basis although individual prizes are presented within the framework of the team event (thanks to the Daily Telegraph).
3. It is an open national event in the sense that there should be no discrimination or restriction in respect of amateur or professional, military or civil, male or female, old or young although there may be restrictions connected with safety, competency and possibly health. This does not exclude subsidiary restricted class prizes within the major event.
4. It is intended to encourage equally new skills among parascenders and advances in equipment design. It is clearly intended that there shall be no restriction of wind limits below the highest permitted by the BPA for an into-wind landing and that artificial gravel pits should not be relied on to permit high rates of impact.

So much for competitions and now to some more general topics. Parascending encounters all sorts of difficulties, finding airfields, obtaining special permission in controlled air space, insurance, training instructors, accidents, getting in touch with other clubs etc. etc - please do not hesitate to contact me or the Secretary General of the BPA so that we can do everything possible to advise and help.

O. W. Neumark.

2 FROM GQ



'PATHFINDER'

Flight Data

Terminal velocity opening time—2.5 secs. approx. Normal rate of descent with 220 lbs.—15.5. ft/sec. Rate of turn—360° in 4 secs.

Canopy

Manufactured of nil porosity heat sealed 1.6 oz. nylon fabric, the canopy has 24 gores and 30 shaped apertures to provide drive, lift and turning.

The canopy is extremely stable and recovery after stall is immediate with minimum surge.

Harness

Nylon webbing with a breaking strain of 4,000 lbs. (1820 kg), with conventional American ejector snaphooks and 1½ shot Capewell canopy releases. The harness is instantly adjustable at main suspension and backstrap points. A full length backpad and comfort pads are provided.

Pack

Available in either three pin 'style' configuration or the more conventional four pin assembly. Both packs are designed for use with the Irvin Hitefinder and other automatic openers.

Sleeve & Auxilliary

The sleeve is of heavy duty 4½ oz./sq. yd. cotton fabric with conventional line stowage and mouthlock.

The 36" diameter auxilliary is manufactured from low porosity nylon.

also 'PROTECTOR' 17ft (5.2m) Steerable Reserve

Flight Data

Terminal velocity opening time—1.5 secs. Normal rate of descent with 220 lbs.—17.5 ft./sec. Rate of turn—360° in 7-8 secs.

Canopy

The canopy is manufactured from 1 oz. ripstop weave, heat sealed, nil porosity nylon. There are 20 gores, two of these have blank portions to provide drive and steerability. The blank gores are covered with nylon net for additional safety during deployment. Stable in flight, the canopy will provide adequate manoeuvrability coupled with a low descent rate.

Liftwebs

Manufactured from 4,000 lbs. (1820 kg) nylon webbing the liftwebs are connected by a strop for additional safety. American snaphooks with 5,000 lbs. rating are used. The Protector can be adjusted to any of four positions on the wearer.

Pack

Of synthetic materials and shaped to fit the body. The ripcord position can be either right hand side or top pull. The tie downs are integral with the pack.



Further details and prices available from:

RFD-GQ LTD., Parachute Sales Division, Godalming, Surrey, England. Tel: Godalming 4122 Telex: 85233



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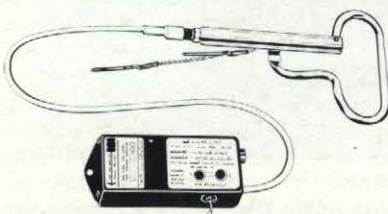
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