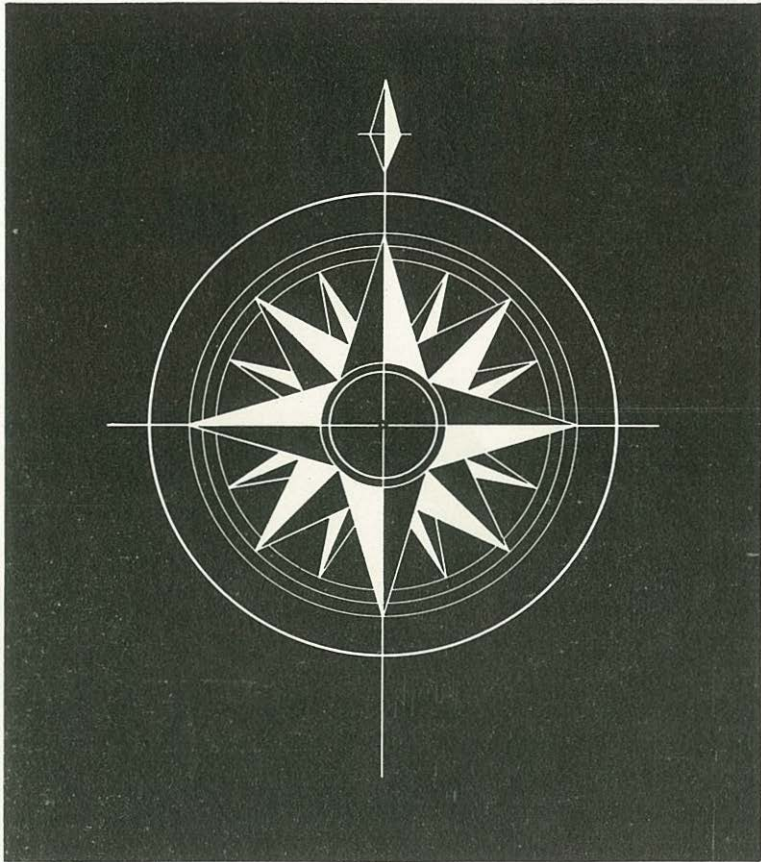


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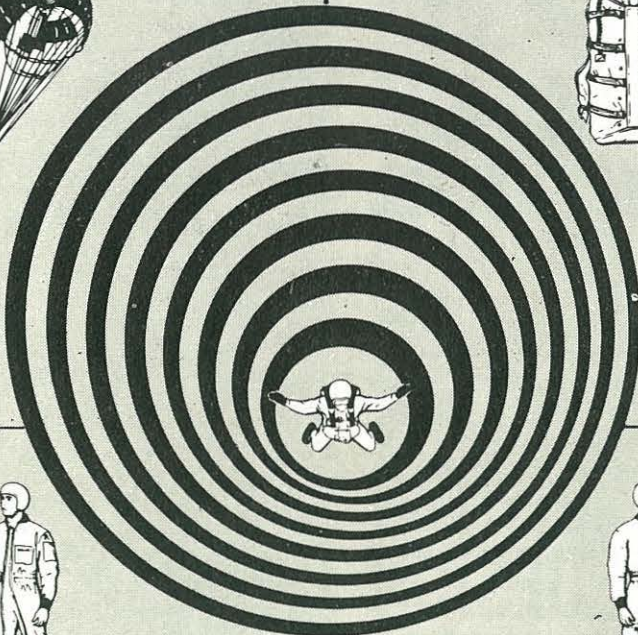


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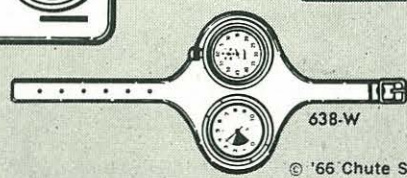
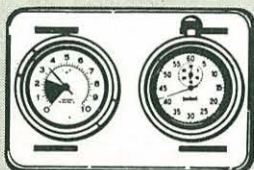
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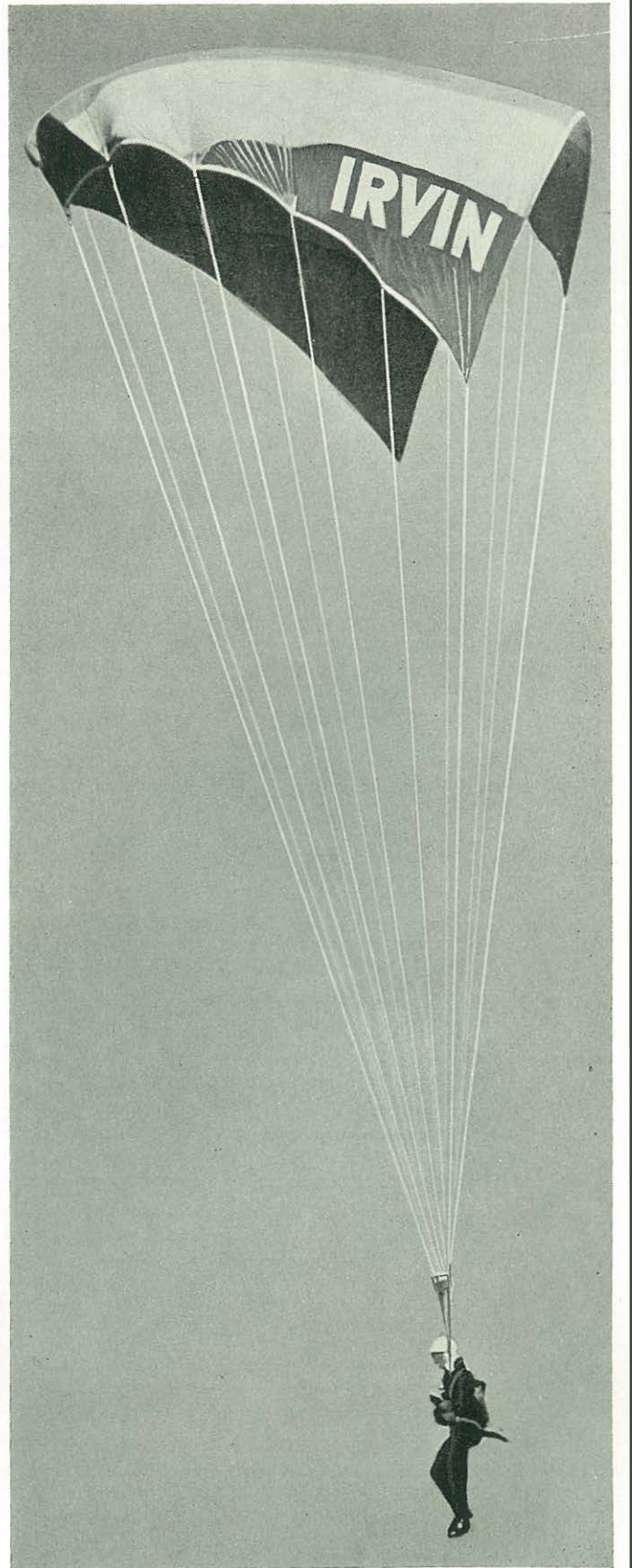
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*Picture shows the Parawing Hawk forerunner of the
Parawing Eagle*



**THE JOURNAL OF THE
BRITISH PARACHUTE ASSOCIATION**

Sport Parachutist

Volume 4, No. 3

Autumn 1967

Three Shillings
(Ex U.S.A.)

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Artillery Mansions,
75 Victoria Street, S.W.1. Phone: 01-799 3760.

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National Champion, 1966 — Sergeant Bill Ccaratt, Parachute Regiment. A landing not for beginners at a demonstration in Aldershot. Picture by Charles Shea-Simonds using a 200 m.m. lens on Pentax S.V. 1/500 at f8 on Plus-X.

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"COPY-DATE" FOR SPORT PARACHUTIST

The following dates are the FINAL dates on which "Copy" will be accepted by the Editor:

Spring Edition: January 31st; Summer Edition: April 30th; Autumn Edition: July 31st; Christmas Edition: October 31st.

With regret, the Editor will not be able to undertake the return of any material submitted for the Magazine. All such material will remain with the B.P.A.

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



Editorially yours . . .

We are overwhelmed, after our impassioned plea in the last edition of the magazine for contributions—we have been inundated. The response from our readers has been wonderful, hence in this edition we hope you will agree we have been able to include more “meat” in its contents. We have for once had to edit and do a little cutting although in the main what we have tried to achieve is to leave out one or two articles submitted and we will use them in subsequent editions. Although we have had this success we hope that you will still continue sending more and more articles to us.

In this edition we are pleased to be able to print more technical articles concerning both existing techniques and new developments. In addition our readers will see that the club news section has increased to what could now be termed an international section. We have always aimed at getting the Magazine into the International field and let's face it we do have more opportunity than any other Journal in Parachuting to do this as so many of our members parachute abroad. We hope to continue hearing from them and wish them all happy jumping.

Money—Money is always a sore point with us all. The BPA is not a rich organisation but it has got some pretty expensive ideas for the improvement of the Sport. Ideas such as National Centres and buying equipment for international events etc. Considering the pretty meagre resources at their disposal the BPA does pretty well for our Sport. No-one likes going around cap in hand for funds and certainly the BPA does not want to go begging from its members. There should be no need to do this if we all support the few profit making schemes run by the BPA. For example the annual raffle is well worth the cost of a few tickets, the prizes, which you will see listed on another page are worth winning. These prizes have all been donated by Companies or individuals who want to help our Sport and we hope that you will help by getting out those tickets from the drawer and get selling.

Talking about the National Centre, in the last edition we asked for peoples ideas on this subject but strangely enough got no reply. Does this mean that everyone is happy with the DZ's we have or reckon we don't need a National Centre? We would have thought that the invitation to write to us on this subject would have produced a host of ideas particularly from those who are already experiencing difficulty in finding suitable DZ's.

Good Luck and best wishes to the Adriatic Team who left recently for this Championship a lot of hard work goes into producing this team and in the next issue we hope to give better coverage to this event than we did last year. Likewise of course we will be giving good coverage to the Nationals at Netheravon.

(continued on page 25)

Trevor Jones' first ever attempt at the frighteningly difficult business of photographing parachuting and conveys the Man against the Elements mood of sport.

BRITISH PARACHUTE ASSOCIATION

APPROVED ADVANCED PARACHUTE INSTRUCTORS

Anderson, B.	S.A.S. Skydivers	Meacock, W. J. .. (P)	Green Jackets P.C.
Catt, Sgt. W. R.	Parachute Regt. F/F Club	Peacock, Sgt. D. .. (P)	R.A.F. S.P.A.
Charlton, Sgt. A. F. M. (P)	R.A.F. S.P.A.	Reid, W.O.II R.	Army Peregrines & S.P.C.
Clark-Sutton, Sgt. B. T. (P)	R.A.F. S.P.A.	Turner, S/Sgt. P. W. .. (P)	Army Peregrines
Griffiths, Sgt. R. .. (P)	Green Jackets P.C. A.P.A.	Vatnsdal, Sgt. S. .. (P)	Parachute Regt. F/F Club
Hughes, W.O.II D.	A.P.A. Centre		

APPROVED PARACHUTE INSTRUCTORS

Acraman, Cpl. R. S.	A.P.A. Centre	Johnston, J. V. W.	
Beard, J.	B.S.D.	Jones, Pte. K.	Parachute Regt. F/F Club
Birch, D. T.	R.A.P.A.	McNaughton, Pte. D.	Parachute Regt. F/F Club
Black, A.		Mapplebeck, Sgt. K.	R.A.F. S.P.A.
Burgess, J. M.	B.S.D.	Martin, M. A.	Parachute Regt. F/F Club
Carr, G.	R.H.A. and A.P.A.	O'Brien, M. (P)	B.P.C.
Castree, C. J.	R.A.P.A.	Parker, Miss D. M.	France
Cole, A. J. N.	B.P.C.	Porter, A. W.	America
Crawley, T.	Green Jackets P.C.	Reddick, Sgt. J.	A.P.A. Centre
David, L/Cpl. B.	Parachute Regt. F/F Team	Reed, M.	North Star P.C.
Dickson, T. G. .. (P)	Scottish P.C.	Robertson, R.	R.A.F. S.P.A.
Don, W.		Robinson, J.	Parachute Regt., F/F Club and R.A.F. S.P.A.
Etchell, R. C.	B.S.D.	Rowberry, Pte. E.	Parachute Regt. F/F Team
Flambert, Miss H.	B.S.D.	Runacres, J.	R.A.P.A.
Gardener, Capt. E. A. J. (P)	Parachute Regt. F/F Club	Saar, J.	Green Jackets P.C.
Gaylor, F. J.	B.P.C.	Scarratt, W. (National Champ.)	Parachute Regt. F/F Team
Goldsworthy, Capt. J. N. A. ..		Seeger, Capt. R. A., M.C.	Royal Marines Parachute Association
Gowens, Pte. P. G.	Parachute Regt. F/F Club	Shea-Simonds, G. C. P.	Army Peregrines
Hall, W.	Scottish P.C.	St. John, L. N. E.	B.P.C.
Harrison, J.	British Sky-Diving Centre	Thirtle, J.	R.A.F. S.P.A.
Herbert, C.	J.S.S.P.A. Singapore	Thompson, M. W. B.	R.A.P.A.
Hill, A. V.	(Cyprus)	Vos, K. V.	British Skydiving Centre
Hogg, J. E.	B.P.C.	Walmsley, J.	Parachute Regt. F/F Team
Hounsome, N.	British Skydiving Centre	Ward, B. R.	North Lancs.
Hunter, D. W.	Australia	West, M. J.	South Staffs.
Itenson, Lt. A. V.	R.A.P.A.	Wilson, J. W.	R.A.P.A.
Jackson, Cpl. M. L. .. (P)	R.A.P.A.	Witke, R.	R.A.P.A.
Jacobs, Sgt. K.	R.A.F. S.P.A.		
Johnson, A. T.	R.A.F. S.P.A.		
Johnston, L.	B.P.C.		

Footnote: (P) Member of the Panel of Examiners.
This list cancels all previous lists of B.P.A. Approved
Advanced Parachute Instructors.

N.B. Instructors' ratings lapse, unless re-appointed, two
years after the last date qualified or on lapse of membership.

A letter from the Chairman . . .

COUNCIL MEETING IN NORTH

Members who attended the Extraordinary General Meeting in London on 20th July will recall that it was decided that in future a meeting would be held at least once a year, in the Northern area of England. The date has now been agreed and we will forgather on 22nd September in Leeds.

There will be a representative quorum of the Council and northern members are cordially invited to come along and let their hair down.

SAFETY COMMITTEE

The reconstituted Safety Committee is working well under the guidance of Captain Tom Ridgeway. A list of DZ examiners has been drawn up and agreed by Council and it is hoped that all DZ safety queries will be dealt with speedily and consistently. It is realised that some decisions concerning restricting DZs will be unpopular with the enthusiasts on the spot; but it should be borne in mind that the Safety Committee are trying to tread a narrow path beset with obstacles: they and we want to keep members jumping and to keep jumping safe. These twin aims are often contradictory and decisions have to be made. These decisions are never made unilaterally or arbitrarily but are the result of much soul searching. We don't mind members "blowing their top" concerning these decisions provided they realise that we are not necessarily going to reverse rulings made in Council, because of their annoyance. A point to bear in mind is that "it is easy to be tolerant if you really don't care". We *do* care for the BPA for Parachuting and for Safety.

BALLOT FOR NEW BPA COUNCIL

The ballot papers are with all members now. Please vote! As a country gets the Government it deserves so well BPA members get the Council they deserve. If you don't care who is elected to the Council don't grumble later on. If you do care fill your ballot paper in correctly and send it to the Secretary General.

RAPA FATALITY

Lance Corporal Brown was drowned whilst parachuting on a RAPA Course. No blame was attached to the Centre or Instructor.

NEW IDEAS

Should the "sail wing" type parachute be perfected it is within the bounds of possibility that over the next few years an entirely new form of Sport Parachuting may come into being. The stated purpose of these new parachutes is to enable enthusiasts to make an exit from an aircraft at about 12,000 feet and then glide perhaps 20 miles to make a sport landing on a target. Parachutists may be casting an eye towards the triangular flight course.

Still we must not let future possibilities detract from present tasks. We have the Nationals and then the World Championships in the near future with conventional parachutes and definite objectives to achieve. Let's get to it.

New Parachutes

Members may well be interested in what may be in the R. and D. boys minds concerning parachutes for use in 1968 onwards. I have been in touch with various interested firms and for your information have produced the following:—

G.Q.s T.A.P. Parachute

This is constructed from shaped gores with a basic diameter of 20.5 ft. It has three control surfaces on each side with a novel method of retaining the aerofoil shape during deflection.

A 30 lb. auxiliary is used to remove the parachute from the man's wake which together with a sleeve that prevents the canopy escaping at the corners gives a smooth, shock free deployment.

Using brakes to cancel drift produces only a slight increase in descent speed and the parachute cannot be stalled by pulling down the controls.

Fast turns and changes of direction produce little over-swing thus last second changes in trim are permissible before landing.

A rate of descent of 12 ft./sec. for a 13 stone man is quoted together with the claim that stand up landings are possible in 20 m.p.h. winds.

Development in the U.S.A.

Barish Sail Wing

This sailing wing first flew in 1965 and some thirty prototypes have been manufactured having maximum speeds of over 20 m.p.h. Larger sailwings of nearly 100 ft. span are being tested as spacecraft re-entry parachutes. It now seems unlikely that the sailing wing will be generally released this year.

Jalbert Para-Foil

This self inflating aerofoil has been developed by the University of Notre Dame for several purposes and used for its first man descent this year. Wind tunnel tests suggest that the Para-foil should be useable in winds of 30 to 40 m.p.h. with very little likelihood of its collapsing.

Lemoigne Aeorfoil

Very little information is available except that M. Lemoigne appears satisfied that its performance will exceed that of the Sail Wing Para-foil.

Irvin's Eagle Parawing

This has a surface area of 400 sq. ft. and is constructed with 14 gores each having five aerodynamic lifting sail panels.

The wing gives a rate of descent of between 5 and 14 ft. per sec., a glide ratio of 25 ft. horizontally for 10 ft. of vertical descent and its turn rate is a maximum of 3.5 secs. for 360 degrees.

In flight with hands off the controls the makers claim that a stable moderate glide is maintained, and a pull down to approximately shoulder level will induce maximum

flight performance whilst more pull down will reduce the glide angle.

Turns are produced by pull down to near maximum glide condition and then further pull down on the side desired.

If the front lift webs are pulled down the vertical descent rate will increase by up to 60 per cent whilst stall approaches by pulling down both control lines sufficiently will cause rapid loss of height for 50 to 75 ft. Recovery may be effected by releasing the control lines and/or applying pressure to the front lift webs.

In Council, on your behalf

These are condensed extracts from B.P.A. Council Meetings

Confidential

Minutes of the Meeting of the Council of the British Parachute Association Limited held at Artillery Mansions, 75 Victoria Street, London, S.W.1, at 18.15 hours on 20th July, 1967.

Present

Wing Commander G. F. Turnbull, O.B.E., A.F.C. (Chairman); J. R. Trustram Eve (Vice-Chairman); P. Lang (Treasurer); D. Pierson; Captain T. Ridgway; Brigadier G. R. Flood, M.C.; Major G. B. Hill; W.O.II D. Hughes; W.O.II R. Reid; Sgt. B. T. Clark-Sutton.

In Attendance

K. R. C. Letts (Secretary General); Miss P. Longworth (Assistant Secretary).

Apologies for Absence were received from:

L. N. E. St. John; Col. F. Gough; Brigadier W. F. K. Thompson.

Matters arising from Minutes of last Meeting. Re. Minute 49

The Chairman informed the Meeting that Weston-on-the-Green would be available to civilian and Army Clubs at weekends and that their aircraft would be allowed to use the landing facilities. The conditions were that Clubs should inform Operations at R.A.F. Abingdon on the Friday before of flying intentions and the duty Controller before leaving home airfield on the Saturday or Sunday. Overall control at the D.Z. will be in the hands of the senior R.A.F. Instructor present.

Re. Minute 52

Mr. Clark-Sutton produced a specimen of the pendant and price list, both were approved by Council.

Re. Minute 53

The Secretary General reported that he had arranged for Instructors to visit Lancashire on three dates in June and July, but had not met with any response from the Clubs. The Chairman informed Council that a preliminary Annual General Meeting would be held in the North to enable Northern members to keep in touch.

Re. Minute 55

The Safety Committee were asking for a presentation of Ascending Parachuting to consider the advertisement of Messrs. Paraglide Ltd., in Sport Parachutist.

Re. Minute 56

Council decided that Instructors posted abroad must give the British Parachute Association three months' notice of inability to re-qualify. The Safety Committee and the Council would then give a decision on whether the Instructor concerned could over-run his period before re-qualification. If an extension was granted the Instructor would have to re-qualify on return to this Country or when two Panel of Examiners were available.

Re. Minute 60

Mr. Clark-Sutton stated that this high altitude presentation would take place on September 22nd and 23rd.

Approval of the Minutes was then proposed by Mr. Clark-Sutton and seconded by Mr. Lang and carried unanimously.

Application for membership

326 applications for new membership were approved.

Applications for affiliation

The applications from the Cyprus Combined Services Parachute Club and the North Star Parachute Club were approved.

Report on preparations for Adriatic Cup and National Championships

Major Heerey being unable to attend there was no report on preparations for the Adriatic Cup and National Championships.

Report from Safety Committee Chairman

Captain Ridgway presented the Minutes of three Safety Committee Meetings. Arising from discussion on these Minutes Captain Ridgway stated that Waterbeach would again be inspected (Council felt that whatever the outcome of this inspection thanks were due to Colonel Wilson for his kindness and influence in making changes towards improving it). Captain Ridgway stated that all D.Z's at present in use had been approved. With reference to D.Z's in general Council confirmed that D.Z's falling within the Safety Regulations were considered suitable. If D.Z's were in question they would be inspected. The Safety Committee had nominated a Panel of Inspectors from the Instructors list and applications for inspection of D.Z's should be made through the Chairman of the Safety Committee, Captain Ridgway.

Council were informed that the Safety Regulations were in the Printers hands.

Five Year Plan of Development (requested by Sports Council)

The Secretary General was instructed to produce a draft five year plan of development as requested by the Sports Council.

National Centre. Progress report. Group Captain Martin

Group Captain Martin not being present this matter was again deferred.

Badges

Referred to under Minute 62.

Displays and display fees

The Secretary General reported that the only display fees being received were from the Army Clubs and the British Parachute Club in spite of frequent press cuttings showing displays being given by various members. The backbone from the income from display fees was coming from the Parachute Regiment. Major Hill undertook to see that the A.P.A. paid their dues and Council wished to draw the attention of Clubs and members to the fact that they should be paying these fees to the British Parachute Association and that the minimum fee per jumper of £10 was in force.

Report on new Instructors

Council were informed that two new Instructors had been appointed since their last meeting, Messrs. Herbert and Beard.

To appoint a Chairman of a Ways and Means Committee

The Secretary General was instructed to write to Colonel Gough to ask him if he would undertake the duties of Chairman of a Ways and Means Committee.

Loose leaf logbooks

Loose leaf logbooks were not considered to be of general appeal.

Packing Certificates

Council were informed that very few Packing Certificates were being issued in respect of reserve parachutes. Whilst the call on the time of Instructors was growing greater giving them little time to instruct in reserve packing and whilst it was realised that all Instructors should be examined in reserve packing for their certificates. The Safety Committee was asked to examine the matter.

Accident Tilstock. The Safety Committee Report to Council on W. P. Slattery, Esq.

The Safety Committees findings were fully endorsed by Council. After considering the many letters received including a letter from Mr. Slattery which was read in full to the Council by the Chairman, Council decided to suspend Mr. Slattery for three months. Mr. Slattery did not accept this decision and wished to appeal. The Chairman instructed him to make his appeal in writing. (Mr. Slattery has now accepted Council's decision.)

Confidential

Minutes of the Extraordinary General Meeting of the British Parachute Association Limited, held at Artillery Mansions, 75 Victoria Street, London, S.W.1, at 18.15 hours.

Present

There were twenty members present.

The Chairman read the notice convening the meeting and followed by explaining the proposals.

After a short discussion these proposals were approved unanimously.

RENEWAL OF GENERAL PERMITS. As from September 1st 1967, General Permits will only be renewed when a certificate signed by a B.P.A. Instructor is enclosed, certifying that the applicant has completed five free falls during the preceding 12 months. Certificates are being sent to club secretaries and can also be obtained from the B.P.A. Office by a s.a.e.

Theoretical Determination of Release and Opening Points

Doug Peacock

INTRODUCTION

Accuracy in landing, be it in competition, display or student dropping, is the outward and visible sign to all and sundry that you, the parachutist, are doing an efficient job of work.

This accuracy depends primarily on selection of correct exit and opening points. That these two are sometimes widely divergent forms the basis of this article.

Note.—Information regarding aircraft and wind speeds is normally given to you in Knots. As a parachutist thinks mainly in terms of seconds, the following conversion will be used:

$$2 \text{ KNOTS} = 1 \text{ METRE PER SECOND}$$

THE PROBLEM

Three main factors have to be considered in determining the release point. These are:

- THROW FORWARD, or PROJECTION
- FREE FALL DRIFT
- CANOPY DRIFT.

Let us take as an example a typical set of Dropping conditions, and examine each factor in turn, using the following data.

Indicated Air Speed (IAS) of Jump a/c ... 70 Knots
 Dropping Altitude 8,000 Feet
 Length of Delay 40 Seconds
 Open Canopy Altitude 2,000 Feet

Met. wind forecast for period:

Altitude	Deg. True	Speed
Surface	325	5-8Kt.
1,000 ft.	320	10 "
2,000 "	320	10 "
3,000 "	300	15 "
4,000 "	290	15 "
5,000 "	290	20 "
6,000 "	250	20 "
7,000 "	250	25 "
8,000 "	250	25 "

Projection

The Projection is calculated by a formula based on the True Air Speed (TAS) of the jump a/c. For our purpose it ceases to exist after twelve seconds of free-fall, i.e. after terminal velocity has been attained.

The formula is: $P = 5 \sqrt{T}$

$$T + 5$$

where V is a/c TAS in metres/sec (39m/sec) and T is delay in secs (not to exceed 12)

Thus in our example: $P = 5 \times 39 \times 12$

$$\begin{aligned} &= \frac{12 + 5}{17} \\ &= \frac{2340}{17} \text{ Metres} \\ &= 137.6 \text{ Metres} \end{aligned}$$

Two points of importance arise here. The first is that the TAS of an aircraft increases with altitude. In this case under standard ICAN conditions with an IAS of 70 Kt. the TAS and Projection would increase as follows:

Altitude	TAS (Kt.)	Projection (Metres)
4,000 ft.	74	130.6
8,000 "	78	137.6
12,000 "	83	146.4
16,000 "	88	155.3
20,000 "	94	165.9

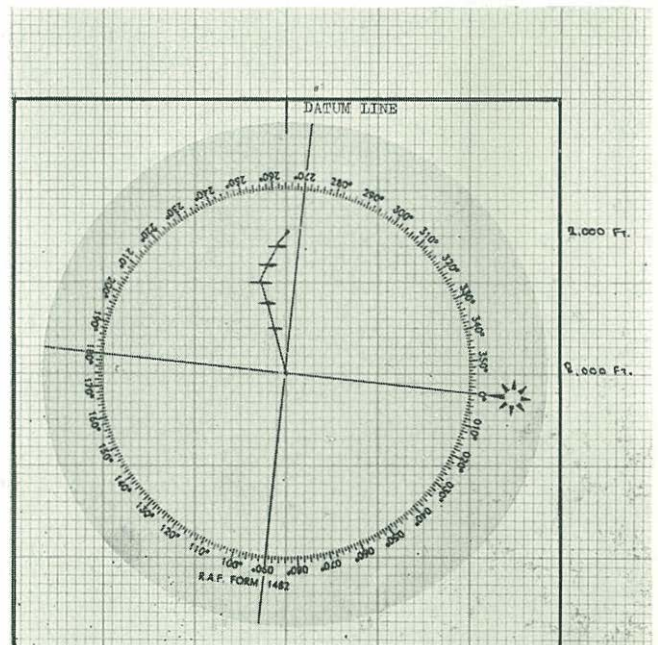
The second point to be borne in mind is that Projection occurs along a/c heading, not track. The fact that we are physically thrown forward the full distance ONLY UNDER NIL WIND CONDITIONS, i.e. when the air-speed is equal to the groundspeed of the a/c, leads us on to the next section.

Free Fall Drift

This is affecting us directly we leave the a/c door. The formula is:

$$\text{Mean Wind Speed (m/sec)} \times \text{Delay (sec).}$$

Fig. 1. Computer. Compass Rose on central swivel. Small square = 25 metres. To scale.



Referring to our Forecast, we calculate the MWS and Bearing by means of a simple computer (fig. 1). The drift of the parachutist is plotted by marking his position after every 1,000 ft. of fall and then taking a new bearing from that point. A final bearing is taken to the last point marked to give the mean drift heading, and the distance is measured.

Thus:

Altitude	Time	WS (m/sec)	Distance	Bearing
8-7,000 ft.	10 sec	$x 12.5 = 125$ metres	250 deg.	
7-6,000 "	6 "	$x 12.5 = 75$ "	250 "	
6-5,000 "	6 "	$x 10 = 60$ "	250 "	
5-4,000 "	6 "	$x 10 = 60$ "	290 "	
4-3,000 "	6 "	$x 7.5 = 45$ "	290 "	
3-2,000 "	6 "	$x 7.5 = 45$ "	300 "	

40 sec

Computer readings give a distance of 390 metres and a mean bearing of 264 degrees (true). Convert this bearing to degrees magnetic by adding 10 (UK only).

In our Example: Free-Fall Drift = 390 Metres from 274 deg. magnetic.

Canopy Drift

The theoretical distance covered is once again, Time in Air (secs) multiplied by the MWS (m/sec), giving a distance in metres. However, whereas both Projection and Free-Fall Drift have been calculated before eplanning, selection of the Opening Point must be made with regard to actual, as opposed to forecast, conditions. The most common and reliable method is to drop a Wind Drift Indicator (WDI) at 2,000 ft. altitude over the target, time it, mark its position and transpose the distance covered on the reciprocal bearing upwind of the target. This is the opening point.

The WDI should be in the air for about 100 secs. It MUST be timed if an accurate opening point is to be plotted. An alternative procedure is to drop the WDI over an estimated opening point, aiming to land it on the target. Again it is timed, landing position plotted and the Opening Point adjusted accordingly. This system saves legwork and ensures the WDI will land on open ground where it will be immediately visible.

THE METHOD

The calculated Free-Fall Drift is marked on the side of

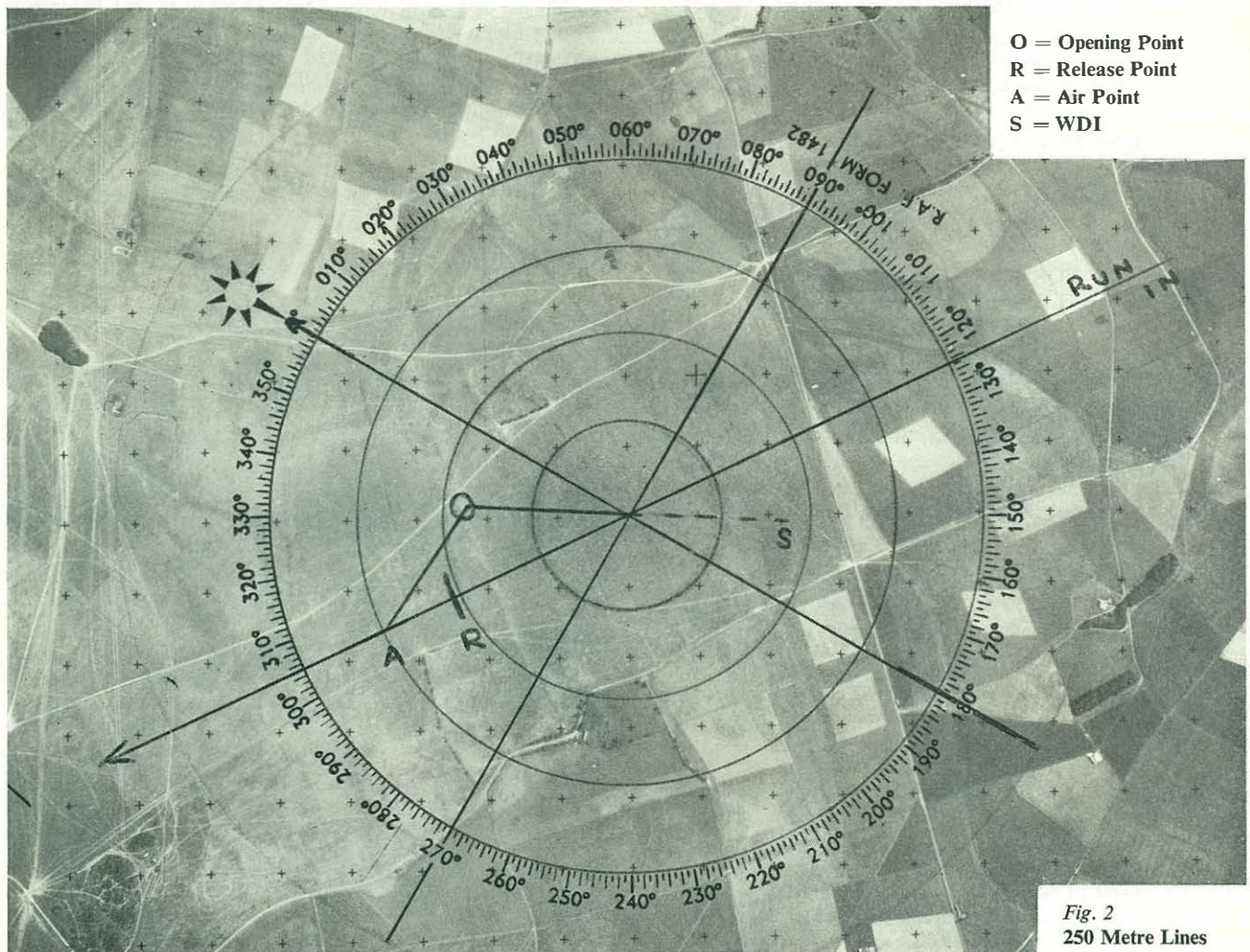


Fig. 2
250 Metre Lines

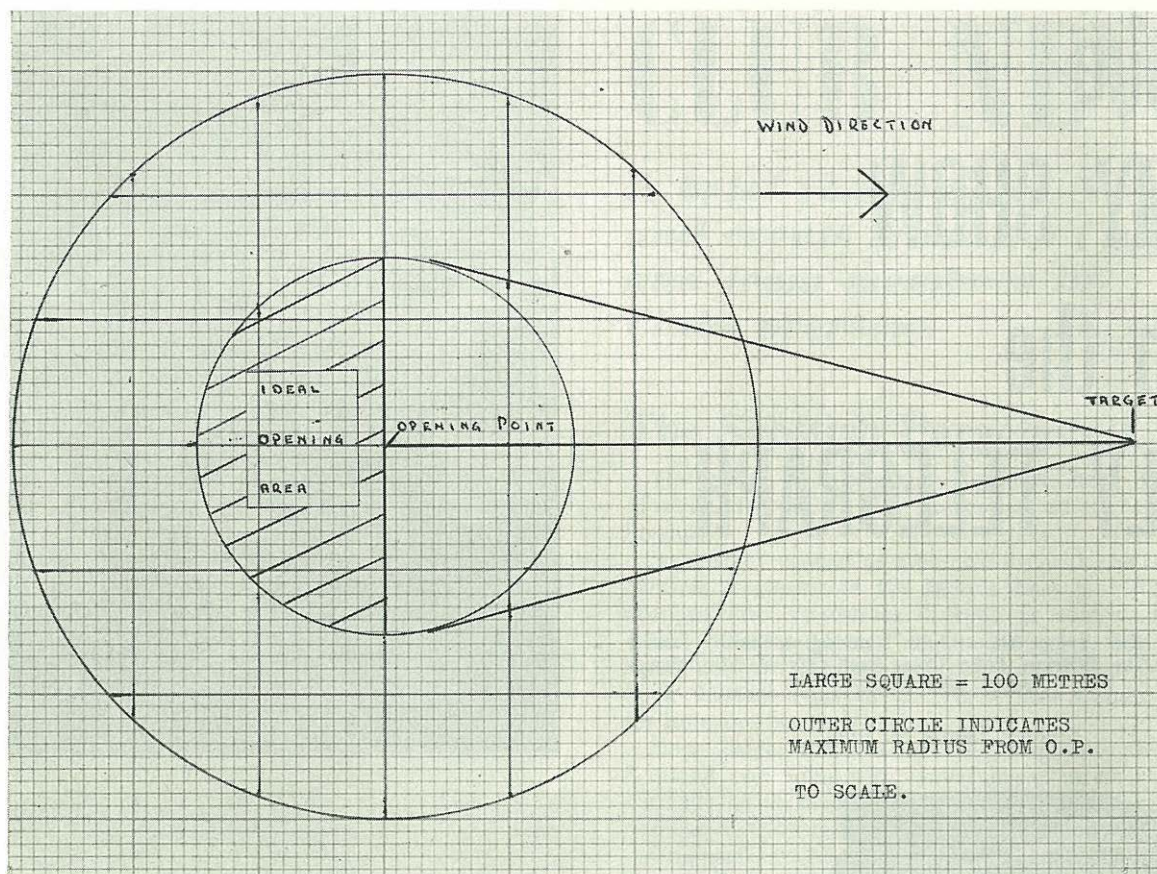


Fig. 3. Wind Cone for 9 T.U.

the Airphoto as a distance and bearing. A WDI pass is made at 2,000 ft. over the target, the position of the streamer marked and the opening point plotted. Assuming the WDI was timed at 100 secs, this OP is valid for canopies having a rate of descent around 20 ft/sec (C9 Double L etc.) which are open at 2,000 ft. Add 20 per cent distance for lopo TU's (120 sec in the air) and 20 per cent plus for Para Commanders.

Mark O on airphoto.

Mark FF Drift and bearing from this point, to produce a theoretical Air Point.

Run-in heading is over target to this Air Point.

In our example Release Point is 180 metres short of this, i.e. allowing 140 metres throw forward and 40 metres reaction time for first parachutist.

It can be confusing to cover the Airphoto with china-graph lines. Suggested markings are:

- (a) OPENING POINT, for benefit of parachutist.
- (b) RUN-IN TRACK, for Jumpmaster and Pilot.
- (c) RELEASE POINT, for Jumpmaster.

Airphoto (fig. 2) is an example based on data given at the beginning of this article.

WIND CONES

The opening point indicated by a WDI is the theoretical

point from which a plain canopy would drift on to the target. The inherent drive of a modified canopy makes it more realistic to think in terms of an OPENING ZONE, rather than a geometrical point. Let us take as an example a low porosity 9 gore TU, using the following data:

Open altitude 2,000 ft.
 Time in air 120 sec. (with 175 lb. weight)
 MWS 5m./sec.
 Canopy Speed 2.5m/sec.

These figures give us the following picture:

Canopy Drift = Time x MWS = 120 sec. x 5m./sec.
 = 600 metres.
 Opening Zone Radius = 120 sec. x 2.5m./sec. = 300 metres.

This of course is the theoretical limit, presupposing constant wind speeds and allowing no latitude at all in the handling of the canopy. A safer OZ is half this size, as indicated in fig. 3.

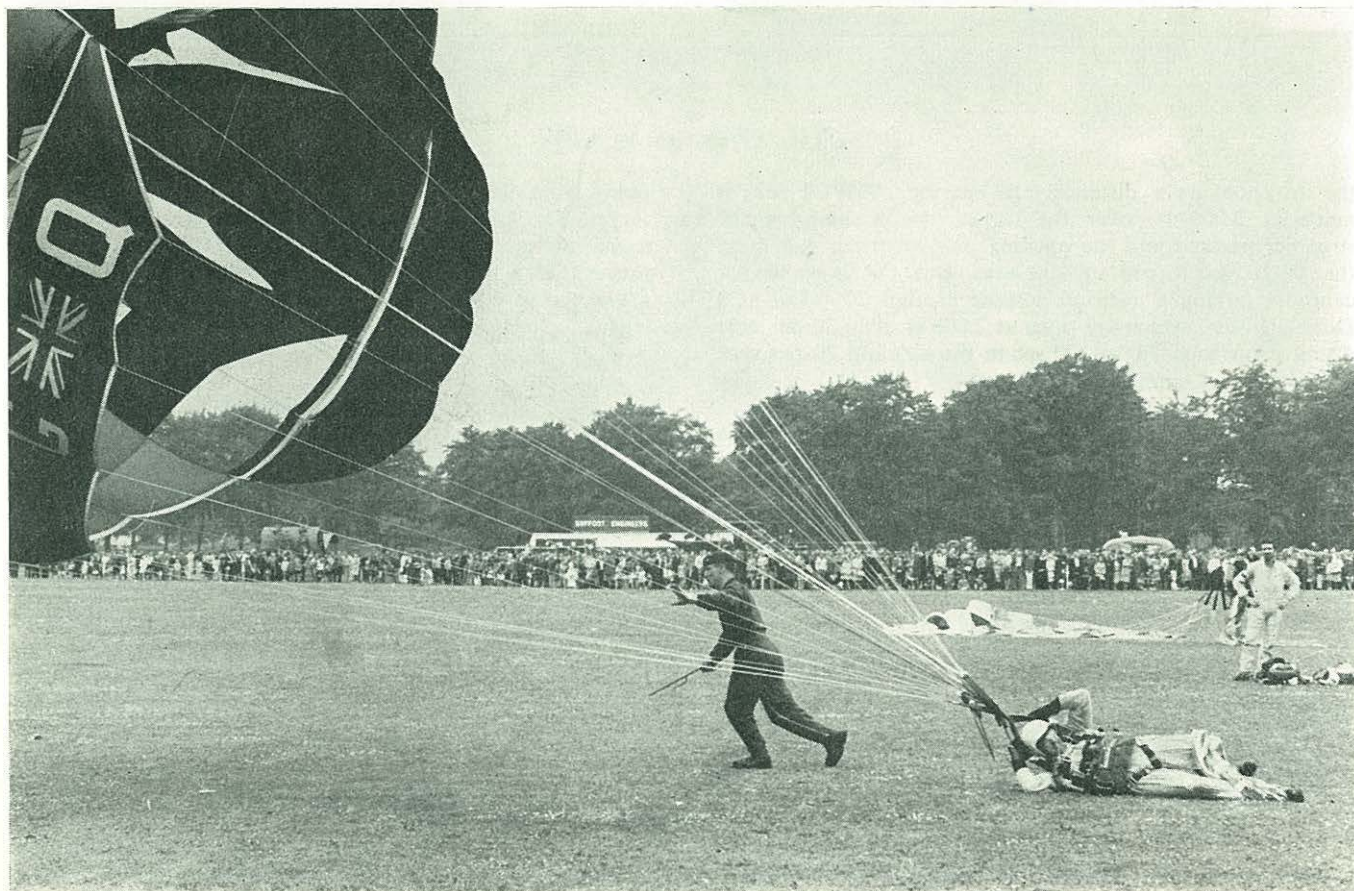
IN CONCLUSION

Accurate parachuting, which means safe parachuting, results from an intelligent study of the prevailing met. conditions and their application to each aircraft load. This met. information is available each day from the local airfield controller, or the local area met. office. Use it.

At the ARMY SHOW with the DAILY TELEGRAPH

Right: At the Army Show John Partington-Smith, Laurie St. John, Mike O'Brien, John Cole, Fred Caylor, Mrs. Penny Seager and child.

Bottom: Laurie St. John.



CLUB NEWS

A brief round-up of News and events from the Clubs and from members in Clubs overseas

The Scottish Parachute Club

The S.P.C. is pleased to announce that Sir Fitzroy Maclean, Bt., CBE, MP, has consented to become Club President.

Sir Fitzroy trained as a parachutist with the Special Air Services Regiment in the Middle East in 1942. He was dropped into Yugoslavia in 1943 as commander of the Allied Military Mission to the Yugoslav Partisans; and again in 1944. He has recorded these experiences in his book 'Eastern Approaches'. He is now Conservative MP for Bute and North Ayrshire.

Since Easter the weather has been unusually good in Scotland, coinciding with availability of aircraft and pilots, with the result that much jumping has taken place and a number of Club members have made good progress.

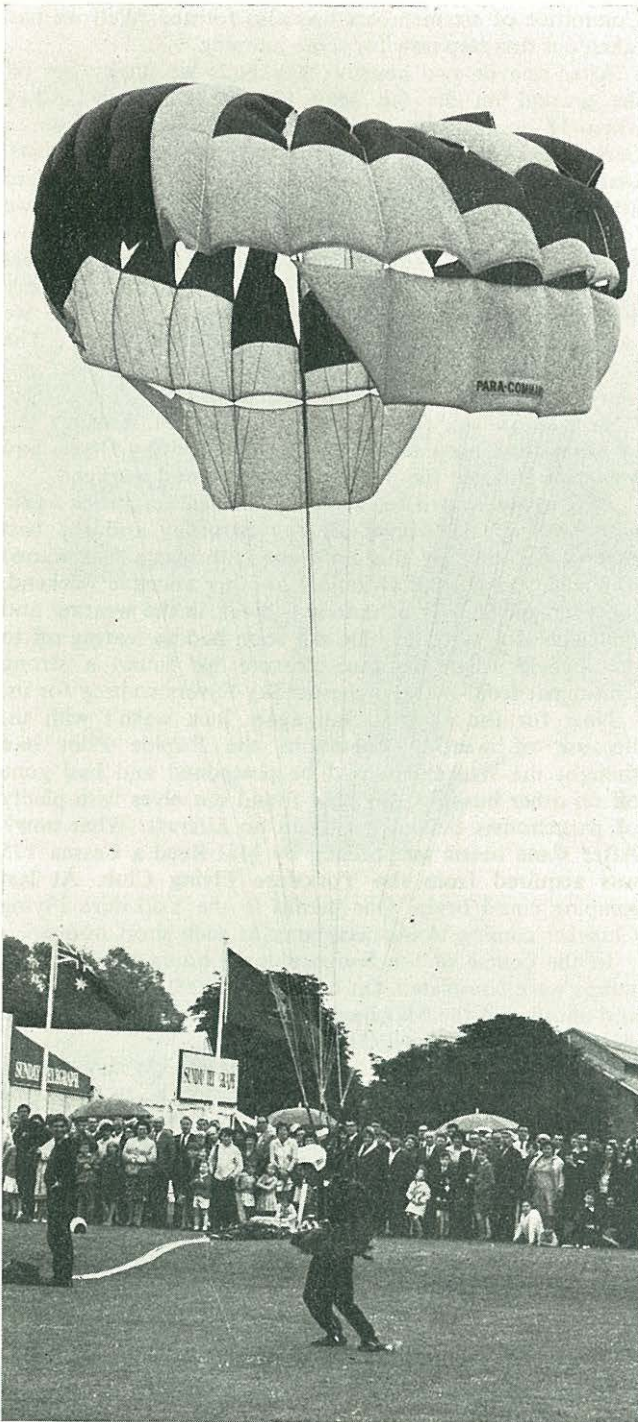
One weekend 81 descents were made from Cessna 175 Romeo Golf. This may not seem much to outfits equipped with larger aircraft and used to better weather, but for a Club which only logged 92 descents in the whole 1963 season, it was a record.

That weekend Alex Mills, Jim Liddle, Gordon Fernie, and Tom Barrie gained their General Permits. Young Tony Smith, who joined the Club as an Associate Member at the age of 14, and stuck it out doing ground training until his seventeenth birthday this year, did his first three descents in an able fashion.

There was one hairy incident when one of the more experienced Club members who should have known better, put a bungee over his reserve handle to safeguard it in the aircraft, but did not check to see whether the handle could still be pulled if needed. When his main ripcord stuck on this descent, he found that the reserve handle would not budge, returned his attention to the main handle and with clenched teeth, both hands and brute force hauled it out around 1300 ft.

There was also one landing accident, which took place in still air under perfect weather conditions. The student, on his fourth descent, was unable to assess his drift as he approached touchdown. He was not drifting at all in fact, with the result that he came straight down, landed on the soles of his feet, and sat on his own heels. Being a fairly hefty chap of some thirteen stones, the impact caused a chip fracture of a vertebra. He was in hospital for 13 days, but is now up and about again, intending to resume jumping in the autumn.

It is worth noting that every single accident which has



Landing a Para-commander outside the Daily Telegraph Stand at the Army Show at Aldershot. (See British Parachute Club Report)

Photo: courtesy Daily Telegraph

occurred during Club jumping back to 1963 involving fractures has taken place in still air conditions.

Members were sorry to see Niels Asche go off on his travels once more in June and wish him all the best at the US Nationals, which were his stated destination. John Middleton from the same club as Niels recently arrived in Scotland and will be jumping with the S.P.C. until the end of the year.

On July 22nd the Club took part in the Navy Day Air Display at HMS Condor, Arbroath, where it is hoped to run the sixth Scottish International Parachute Championships in 1968.

Six members squeezed into Loganair's Cherokee 6 and exited on one run from 5,000 ft., using smoke.

Also appearing at the display was a combined services team consisting of Gus Martin and Graeme Cathro (Red Devils), John Robinson and Robbie Robertson (RAF Falcons) and Jim Penny (S.A.S.). They put on a spectacular show from a Navy Wessex at 10,000 ft. including tracking a two man link and a cutaway.

On the following day Gus, John and Jim came to Strathallan Castle and gave valuable instruction in relative work to the more advanced members of the Club.

Turner Fielding and Vic Pollitt, who were with the Club during the season at Carlisle Airport in 1964, were at Strathallan as visitors recently.

Visitors are always welcome provided they bring full documentation including BPA membership. The cost per jump is 30/- up to 7,000 ft. at the moment. Accommodation can be had locally at 22/6d. for Bed and Breakfast. Jumping is planned for most weekends. There is no week-day jumping. Intending visitors should phone Tom Dickson on a Friday between 6 pm and 7 pm at Loanburn 3105.

North Star Parachute Club

A new name, a new Club, but one which we hope will make its mark on the Parachute Scene, before too long. It comprises elements from four Counties, Northumberland, Yorkshire, Durham and Lincolnshire, and replaces the Northumbria Parachute Club.

Our HQ is at Gainsborough, Lincolnshire, where we have accommodation at Corringham Road, Gainsborough, which was acquired by the hard work of one of our Club members, Arthur Lawthorpe. Well done Arthur. The building has sufficient room for three packing tables and we have also rigged up a stabiliser. It is also possible to accommodate members in the building on a sleeping bag basis.

Our present DZ is at Kirton-in-Lindsey, Lincolnshire and it is our intention to hold an odd weekend at Sunderland Airport, Co. Durham, to keep the interest alive in the North-east of England. An ideal situation as far as we are concerned would be to have a more central DZ and this we are working on. We are hoping to find something suitable in the Thirsk area. If anyone can help us, please let me know.

A meeting of prospective members was held in April and the following Club Officers elected: Chairman and Instructor—Mal Reed; Treasurer—Ivan "Dusty" Miller and Secretary, yours truly—George E. Russell. A General

Committee of six members was also formed. Well we had taken our first step now for some jumping.

After one or two abortive weekends we finally got off the ground on the 6th May 1967 at Kirton-in-Lindsey when 18 jumps were made by Club members from a Cessna 172. Of these 6 jumps were made by students. Unfortunately weather conditions did not permit us to attain the number of jumps we had hoped. As it was, we found ourselves jumping in between thunder storms. However, we were well satisfied as we had at last got our feet off the ground, and to celebrate this on the Saturday evening we found ourselves in the local pub where we can safely say "we supped some stuff that night". The following Sunday was a complete washout, rain, rain and more rain. Oh for Californian weather!!

Two weeks later found us back at Kirton-in-Lindsey. An invitation had been sent to the Manchester Sky Divers and a Rapide laid on; the ingredients for a good weekend.

Alas it was not to be. The English weather struck again with violent rain storms all day Saturday and the best part of Sunday. By this time our enthusiasm had waned somewhat, as we had visions of another abortive weekend, however, on Sunday afternoon a break in the weather and the sight of a patch of blue sky soon had us tearing off to the airfield where to our pleasure we found a strong contingent from the Manchester Sky Divers waiting for us.

Now for the aircraft. But again luck wasn't with us. Because of weather conditions the Rapide Pilot had thought the weekend would be postponed and had gone off on other business. We now found ourselves with plenty of parachutists but no pilot and no aircraft. What now? After some hectic telephoning by Mal Reed a Cessna 175 was acquired from the Yorkshire Flying Club. At last jumping could begin. Our thanks to the Yorkshire Flying Club for coming to our assistance at such short notice.

In the course of the few remaining hours left to us 37 jumps were completed. On one lift to 7,000 ft, Pat Slattery and another of the Manchester boys successfully completed a link-up. How is your PC handling Pat?

All in all it turned out to be a reasonable day after a terrible beginning. At this point I would like to thank the Manchester Sky Divers for coming over for the weekend. Sorry about the Rapide falling through chaps and as far as the weather was concerned you can't blame me for that can you? Let us hope we get better weather in the future.

As far as future plans are concerned we have a party going off to Lille at the end of June for some concentrated jumping, and plans for further weekends.

Anyone requiring details of our Club please address your enquiries to The Secretary, North Star Parachute Club, 47 Swinley Gardens, Newcastle-on-Tyne 5.

Hope to see some new faces before too long.

GEORGE E. RUSSELL,
Club Secretary.

The British Parachute Club

Several successful displays, as far afield as Wales and Yorkshire, have been carried out so far this summer; the weather has been kind to us, and only one display was a washout.



Ray Etchell on exit at 10,000 ft., all set for a mid-air party—perhaps the strange octagonal shapes are the start of three pink elephants!!—Picture by Sherdy Vatnsdal using the Charles Shea-Simonds helmet-mounted Nilcon F.—1/500 at f8 on Tri-X.

Cpl. Brian David at Thruxton just after he had carefully draped his canopy, on landing, over two unsuspecting spectators in a Morris Minor 1000!!—Picture by Bernard Green, HP3 and Leningrad camera.

The team we entered for the Army Show on Queen's Parade at Aldershot, representing the B.P.A., put on a first class display. Each member of the team was well equipped with an assortment of smoke bombs, very pistols, gas horns, banners, Union Jacks, aluminium foil packed between folds of the sleeve and thunderflashes.

Jumping is going on regularly at Blackbushe each Sunday, but it seems impossible to get a reliable source of supply of an aeroplane. I don't know why it is, but flying types must be the most unreliable people on this earth; they make great promises and get all hurt if you so much as suggest that they might let you down—and then, as sure as God made little apples, they do just that the next Sunday. We are at Blackbushe every Sunday and weather permitting we can guarantee several hours flying each weekend to anybody with a suitable aircraft; but it would seem that these days, pilots and aircraft owners don't want to make money.

Jeff Orchard, who has served the club extremely well as a Director and Correspondence Secretary, has resigned from these positions. The job of Correspondence Secretary is quite a busy one and Jeff is now unable to devote the necessary time it requires.

Lou Johnston's wife Carol has returned to Australia to have her baby(s), and to set up house, and Lou will be following in a couple of months' time. We'll miss their pleasant company and wish them both every happiness for the future!

Mike Schram, from Norway, has returned to us for a few months and is getting quite a few jumps in. Ed Booth, our American friend has also started filling the sky over Blackbushe with his T-10.

John Lowe, one time Director and Secretary of the club, is returning to us after a two year stay in the States. His experience gained, whilst instructing at Lakewood, New Jersey, will be of great help to the club.

Andy Porter, who recently returned to England for a few days' visit, with his fiancée Pat Reardon, is marrying her on August 5th in New Jersey, U.S.A. Everybody in the club wishes them a long and happy marriage! I wonder how long Ade Hill in Cyprus will last out???

Next week we will be holding a competition to select our team for the Nationals. We may well enter an A team and a B team this year as there is more interest in the Nationals this year than there has been previously. See you at Netheravon, British Sky Diving!!

LAWRIE ST. JOHN.
July 29th 1967.

The Manchester Skydivers

In our last news letter, mention was made, that following a general sort out of members, we had ended up with a keen hard core of jumpers. This has been increasingly obvious over the last few months as we have jumping at Shobdon, until it closed, our own DZ at Tilstock, Kirton in Lindsey, and lately at Halfpenny Green. In two weeks' time we hope to be jumping at Selby in Yorkshire. We have been having difficulty in hiring aircraft and have tended towards a rather nomadic wandering, to where there is any jumping available.

We did manage to get the 22nd S.A.S. Rapide up to Tilstock just the week before she sank so heavily at Halfpenny Green, ending what could have been a beautiful friendship with the Manchester boys. One of our members was so saddened by the loss of the old dear, that he was moved to write her epitaph in rather terse verse, published elsewhere in this magazine (he hopes).

We had 'Buzz' Bennett over from Canada, he's an ex-Yorkshireman turned Colonial, telling us of weekends in Canada, where ten jumps in a weekend were quite common. Also Dave McCue over from Zambia, himself from scratch to twenty-two jumps in just six weekends. Don't these people know about weather?

A few words to Dave Waterman who, in the last issue of the "Sport Parachutist", wondered what had happened to the Manchester Sky Divers. Do not be too concerned Dave, subject to the usual hazards of weather, aircraft, and finance, etc., we are getting plenty in. Why not come up and see us again and bring your camera, we have several birds of delightful plumage in our club, Anita Partridge and Irene Wildgoose, to name but two. I'm sure they'd love some photo's of themselves in flight to be published in the magazine (or the "Daily Telegraph").

Incidentally, following the "Weekend Telegraph" supplement on parachuting, this club had over 200 letters from members of the public, requesting details of membership. We have replied to every single one, offering our facilities, but it has only resulted in a handful of new members. Of the rest, we know not! Perhaps to be a parachutist one needs to be slightly potty and perhaps there just aren't enough potty people about.

JOHN COOKE,
Club Secretary.

British Sky-diving—Thrupton

If we sounded optimistic in the previous issue of "Sport Parachutist", we were most certainly justified. To date (mid-July) a total of nearly 3,000 descents have been carried out. Members are really working hard to improve their capabilities and progress has been made all round. Relative work has improved enormously with three and four man links being achieved every weekend. Our efforts have been capped by a perfect five man star from the Rapide from 9,500 feet. A sixth man photographed the star.

It is with great regret that we were informed of the death of one of our members, John Gray, who was killed when his Reliant three-wheel motor car was in collision with a lorry on the M.6 motorway.

Our Rapide the "Brown Bomber" recently had its Certificate of Airworthiness and is flying extremely well.

Although earlier in the year we were experiencing difficulties with the Farmers we are delighted to say that the difficulties have been resolved and parachuting is running very smoothly.

Any member of the British Parachute Association is most welcome to jump at Thrupton every weekend. Needless to say all documents must be produced and weekend membership costs 5s. B.P.A. members can also parachute

at Thruxton during the week. Telephone or write to British Sky Diving, Toll House, Runfold, Farnham, Surrey. Telephone Runfold 2209 for details of mid-week jumping.

We are rather keen to arrange an inter-club competition and if any clubs or individuals are interested perhaps they will be good enough to write to the address in the preceding paragraph.

Finally jumping will continue throughout the Winter and if you are keen, we expect to see you!

J.S.S. Parachute Club— Singapore

Every time I read "Sport Parachutist" and realise there is no news from Malaysia and Singapore and read the editorial, usually deploring the lack of contributions, I feel a prick of conscience.

Since our Association in Singapore was formed on 1 Nov. 66 and recognised by all three services we have been a thriving concern. Visitors to this part of the world will always find a welcome. The only condition—bring your BPA card and log book. There is no membership fee, just pay for your time in the aircraft. We hold club training nights every Monday and Wednesday in the Far East Training Centre gymnasium put at our disposal by our chairman Lt.-Col. Malcolm Carr KSLI, and have a regular fortnightly booking with the Singapore Flying Club for one of their Cessna 172s. More recently the Aussies of the Royal Australian Regiment at Malacca have been joining us at Kluang under the capable direction of their CCI Sgt. Dennis Heenan together with some of the KSLI club also from Malacca.

During one weekend in June we got 86 descents in between 1.00 p.m. Saturday and 5 p.m. Sunday in thirteen hours forty-five minutes flying time, a weekend record for us. During Nov. our DZ in Singapore at HMS SIMBANG was used frequently for midweek parachuting but since the end of the Borneo confrontation and the return of the naval helicopter squadrons the bars have been up. Who says an ill wind blows nobody any good. For one reason or another the squadrons disappeared for a couple of weeks during June but owing to non availability of service aircraft only one afternoon jumping transpired so it's back to our fortnightly 180 mile round trip to Kluang.

It was extremely good to see Wing Commander Turnbull out here at the end of May visiting one of the far flung outposts of the BPA empire and we all hope he was, if not impressed, satisfied with our organisation. As mentioned in the Summer Sport Parachutist we are now looking forward to Don Hughes visit in Oct. At the moment fingers are being kept crossed as the last few final details are being tied up but I think I've been parachuting for long enough now not to be disappointed at any setbacks that occur. Why people take up such a frustrating sport I shall never understand.

At the moment arrangements are being made for the FARELF open championship (accuracy only). I hear that the road to hell is paved with good intentions but I do intend to let you know the results. A few more harsh words

about lack of contributions in the editorial will probably prompt another effort.

OVERHEAD ON THE DZ (all true)

(no names mentioned in order to avoid embarrassment)

Key: J—Jumper, D—Dispatcher, S—Student
I—Instructor

1. S.J.—Can I go now.
D.—If you want to.
2. J.—There I was in Free Fall at 9,000 ft. right over the cross—and I can't track.
3. I. to S.—Give the sequence for a water landing.
S.—Get into the seat strap, release right capewell. . . .
4. J.—The trouble with Nobby is his shape—he always feels cheated because he spends less time in free fall than anybody else from the same height.
ANOTHER J.—Yes. What he needs is a heavy drop pallet and a cargo chute.
5. J.—Pity about that tree landing although I'm told latex reduces the canopy porosity.
6. J.—I'd like to get the character who put these double L Mods in gores three and twenty-two.
7. DISGRUNTLED J.—The pilot's story is that he couldn't really see the point of putting on the brakes 5,000 ft. off the ground.
8. PILOT to D.—Are you ready yet.
D.—Why ask me you're driving the ——— thing.

Malawi Parachute Club

(A letter from Gordon Price)

Dear Sir,

We hope to get the new Army Commander who arrives today as the President of the Club—as an ex-Parachutist he should understand some of our problems.

The Ministry of Civil Aviation here in Malawi are most helpful and do everything possible to smooth our path for us. At the moment we have six complete rigs (5 7TU and 1 DL) and hope to start Student Training this weekend. We are, however, slightly hampered by only having the one DL and it takes time to get kit from the States. I have been in touch with the mother of the late Eric Daly of Benoni who is keeping his business going, but so far have had very little success in obtaining kit. She, like us, has to get it through the States and again time is the problem. I have been in touch with most of the SA and Rhodesian Clubs, and hope to be getting some invaluable help and suggestions from them in due course. The Club is already over 20 strong and this includes a fair amount of ex-para and SAS. We have four instructors and can call on six private pilots to drop students at any time. For aircraft we have two Cessna 172s and these cost £6 per hour and can in dire emergency call on an Auster, Piper Cub and Cessna 150. At the end of the month the Charter Company get a Cessna 206 fitted with variable pitch screws and then we are on our way. Also through the courtesy of the Malawi

Police we can, if we need it, have an air to ground to air communication system. Most of our jumping is done at Zomba which should, I imagine, be one of the most picturesque DZs in the world, surrounded on one side by the Zomba Plateau, and on the other side by the 3rd highest mountain in Africa, Mount Mlanje.

My wife, Ingrid, became the first woman ever to jump in this country a few weeks ago. Trained members of the Club were booked to jump into the Central Stadium, Blantyre on Republic Day (6th July) in front of the President, Dr. Hastings Banda, and during the interval of the football match between Malawi and Oldham Athletic. At the last minute however the jump was called off as the Police thought the stands would probably collapse with the movement of people to watch the jumpers—especially if one landed outside the area. One very amusing thing here is that during jumps one minute the DZ is deserted and the next there are usually about 800 African children racing round the area. The climate is terrific for jumping—bright sunshine every day with cloudless blue skies—at the moment we are going through our winter—lasting one month and going down in temperature to about 55 degrees.

Having picked your brains for ideas and suggestions could I be cheeky enough to ask you if the BPA has any old free-falling photographs it could let us have for our Club Room. We are rather bare at present and anything would be appreciated.

Thank you for the forms—I shall do my best to get all members in the BPA and also try to provide “copy” for the excellent magazine you produce.

Again Very Many Thanks.

GORDON PRICE (Secretary).

P.S. Are there any of your members who are interested enough to get a new Club off the ground by letting us have a 28 foot 1.1 Ripstop Nylon Canopy with DL modifications cheap?

Pelican Skydivers—Maryland

The quiet and somewhat remote town of Ridgely in Eastern Maryland has found itself the subject of several Press articles recently and has, it is rumoured, even been mentioned on television in Oklahoma—though this is open to an appreciable amount of doubt. This sudden publicity is not due to any amazing agricultural achievement such as the production of the largest potato ever seen in the Eastern States, and had the town itself been the cause of the publicity it might have earned the title of “the quietest town this side of Death Valley”. However the cause of this sudden publicity, of which the majority of the local population is blissfully ignorant, is the acquisition of a small farm by the Pelican Skydivers who have turned it into their club drop zone, and which is now looked on by parachuting circles as the best drop zone on the eastern shore. The ownership of the land is divided between three or four of the Pelicans, one of whom is the club’s custodian, Bill Fravel.

Apart from an extremely inviting twelve mtr. pea gravel

target surrounded by acres of open ground, the club boasts extremely good on-the-spot facilities, all of which are to be found in the small farm house. Outside are two packing tables—used mostly for student training, and an extremely large aerial photograph of the DZ.

The fact that you have to pay \$1.00 every time you cross the Bay Bridge (something you have to do to reach Ridgely from Washington, D.C.), helps to limit the people who jump as guests of the club to serious minded parachutists who ration their fun jumps to their last of the day, after having used the rest for style or accuracy practice. The Pelicans themselves are not prepared to accept “frivolous” jumpers as members of the club, and before anyone joins he has to be voted in at a club meeting. This naturally ensures a high standard and the club exudes an atmosphere of keen professionalism which is understandable when one considers that the number of members who are not ‘D’ licence holders or ‘D’ qualified, are extremely few. Nevertheless, student classes are held, and are run by César, the club training officer. Small and dark with a build like a barrell César spends most of his time on ‘chute maintenance, reserve packing and of course student training. The club building itself is looked after by Bill Fravel who produces enough hamburgers a day to feed a regiment, and is the only American I know who seems to have unlimited access to brown eggs—which he can scarcely hardboil quickly enough to keep abreast of demand.

The price of jumps is as reasonable as you will find anywhere, and members and guests pay exactly the same amounts. The three pilots who are, needless to say, kept hard at work from dawn until dusk, have two Cessna 182’s between them and a great deal of experience of flying jumpers. Dick Snyder, who is part owner of the Drop Zone, is a retired U.S.A.F. pilot with countless hours to his credit, while Bud Sylvia, the chief pilot, seems to spend so little time on the ground that I can do no more than merely acknowledge his skill as I have hardly said more than “five left” to him since we first met. The third pilot, Andy Keach from Australia, knows several British jumpers and has spent several months jumping in England, though this was some time ago. Apart from holding Australian licence “F.I.”, he is also the only person I have ever heard of who has successfully built his own P.C.—and a clown at that. The amount of people who jump “cheapos” can be counted on one hand, and those who are particularly keen on style, boast the most amazingly unorthodox looking backpacks and harnesses.

Perhaps the most rewarding thing about being able to jump with this club is that you can learn something from everyone on the DZ. Bob Holler is perhaps the club’s most consistent style jumper, clocking in times of around 9.2 seconds or 9.5 seconds pretty regularly, which gave him third place in style in the nationals and seventh overall. Mike Schultz, who is secretary of the Central Atlantic Sport Parachute Association (CASPA) is another “style addict”, as is Linda Meals who never ceases to amaze the local population who still tend to think that parachutists are kept in cages and fed on steak and milk.

Maureen Locke specializes in neither style nor accuracy but prefers to achieve good figures in both, it being rumoured that she was still talking when exiting for a high

altitude jump complete with oxygen mask! Karen Roach, though not a Pelican Club member, jumps at Ridgely every Saturday and seems to consistently keep her times around nine or ten seconds. She came third in accuracy, third in style, and third overall in the nationals, so it would seem that her future should prove exciting.

Any proceeds gained from a Demo are ploughed back into the club fund, and plans for the future include a packing shed which will hold at least five tables and the building of some satisfactory accommodations for people who want to stay all weekend. The Pelicans are extremely popular with the "natives", who turn up in droves to watch jumping every weekend, but perhaps their greatest claim to fame is that so much Carling Black Label has been drunk at the club that beer has now been renamed Pelican Juice by every parachutist in this part of the States.

Fort Myer Sport Parachute Club—Virginia, U.S.A.

Since we last wrote things have been going very well for the club although several of our staunchest members have been posted to other parts. Major Harry Hodges (now Lt.-Col.) had two accidents within a month of each other, the first being caused by the wind increasing from 12-29 knots between the time he left the plane and the time he "landed"—something which put the Major in hospital for a week and meant that he had to buy another Bell Helmet as his first looked as though it had been steam-rollered. Undaunted, however, he was back jumping within three weeks and this time was just as unlucky for on landing he had his foot across a hole in the ground and landed up with a broken ankle. Janies Rontoparlos (better known as Rontop), who escaped unharmed from the same jump which put Harry Hodges into hospital, broke his ankle on his smoke grenade bracket when executing a somewhat dubious stall turn, but was out of plaster within three weeks and is jumping again.

Life has not been dogged with as much tragedy as would appear at first sight, though we have had to depend largely on jumping with local civilian clubs as our Beaver pilots have been unable to fly at weekends, and the Marine's C.H.46 helicopter has been grounded due to some technical hitch. However, the ball is beginning to roll again so we look forward to some long days of jumping in the future.

During the past few weeks we have said goodbye to Bill Fox who is now down at Fort Hood, Texas, and also to Chuck "Trees" Frank who has left the Army and has headed for the same neck of the woods. We wish them both the best of luck in the future. Harry Hodges has been promoted to Lieutenant-Colonel and is leaving for Turkey where he joins the American Military Mission—armed with dozens of rigs. Our congratulations to him on his promotion and our warmest thanks for being such a splendid president. I feel his face will become a familiar sight on European drop zones and I know he plans to visit England and Scotland.

The club team put on a 'demo' at Fort Meade, Mary-

land, which was due to be followed by a display jump by the Golden Knights. Feeling somewhat apprehensive about our jumping skills compared with the Army Team, our nine jumpers stood smoking far too many cigarettes beside the Beaver which was to take them aloft, all the time watching the wind meter creeping higher and higher. The moment to go arrived and the first stick of four comprised of Major Bob Farr, Bla Bla (alias Stg. Laframboise), Sgt. Hammock and Sgt. Blanchard took off in a brisk wind of "15" m.p.h. After watching the wind streamers' lively performance with unbelieving eyes—one man claimed it never fell at all—they clambered out at 12,500 ft. far far away from the expectant crowd of Generals and visiting dignitaries. All had P.C.'s and all did extremely well landing commendably close to the target in the strongest 15 m.p.h. wind I have ever seen. However, the second stick was advised that Bob Farr and Blanchard had badly burned their canopies with their red smoke, and were seen by an astonished pilot, who was anxiously waiting to take off, to be discarding smoke grenades as if they had suddenly realised that they were white phosphorous! At 7,500 ft. Sgt. Phillips exited first about 25 seconds before the rest and displayed his usual skill in tracking by keeping pace with the plane and opening just below Capt. Thackeray, 'Rontop', Lt. Gentle and 'Trees' Frank as they exited. Once again everyone made it in although 'Trees' Frank lived up to his nickname by landing slap in the only tree that was anywhere near the DZ—much to the delight of the crowd! It was with some regret that we noticed that the wind was at this stage dropping off a bit, and as if to add insult to injury the Golden Knights were seen to be approaching the Drop Zone to drop their W.D.I. However, the imminent threat to our team's good standing in the eyes of the crowd never materialised, for instead of climbing, their plane was seen to turn and head for home! The fact that the Golden Knights' public commitments are so numerous that they cannot afford to jump in marginal winds was the very furthest thing from our minds. Our chests swelled, and what had been a somewhat listless and resigned shuffle turned into a rather jaunty swagger as chutes and jumpsuits were loaded into the club truck and we headed for home.

Our student training programme has been in full swing with approximately sixty students arriving for the first evening of instruction on our last class. The fact that Harry Hodges was forced to welcome them with his foot in a large plaster cast might seem unfortunate, but it did help to discover who were serious and who were spectators when the second evening of training arrived. We have managed however to train a good number, and it seems we have some very keen ones who should go far. Smaller classes are what we are aiming for in the future, and it is felt that more success per class will become apparent, if there are only approximately twelve students.

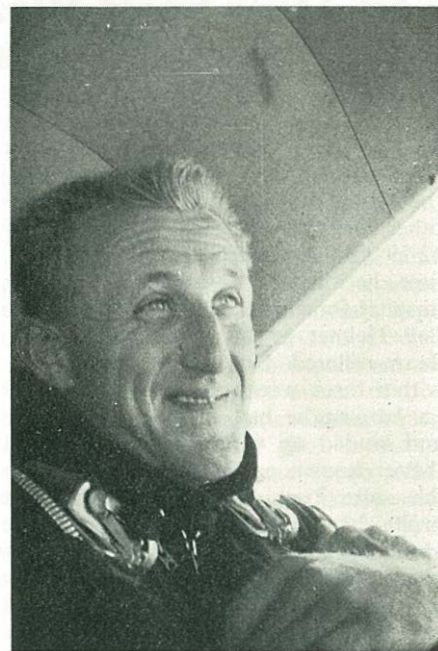
Our D.Z. is not in the best of shape with an empty bowl waiting patiently to be filled with 150 tons of Pea Gravel which stubbornly refuses to arrive, but so far no one has decided to test the bowl without the gravel as no-one has flotation gear! Nevertheless we expect the gravel soon, and look forward to the days when we won't have to drive to the "Pelican's" just to practice accuracy.

Cyprus Combined Services Parachute Club

It seems a long time since that dark, wet, and very miserable night in March this year when we sat round the table and discussed whether the Club in Cyprus had any future at all. That evening we gave ourselves a series of essential tasks to complete if the Club was to survive and a time limit of two or three months for them to be completed. We all agreed that unless we managed to obtain an aircraft, accommodation, much more equipment, and of course a considerable amount of money, there would be little point in continuing. Although there are many jobs still to be done we are definitely over the hump.

On Sunday the 14th of May, a small red and cream aircraft appeared through the clouds to the west of Nicosia Airport. Minutes later, Mr. Robin Adair our Deputy High Commissioner, and his brother-in-law Mr. John MacDougal, were describing their five day flight which had taken them 2,500 miles across Europe from England to Cyprus. The first priority had arrived, thanks to them, and a party was held the following Saturday to celebrate the occasion. Needless to say, the pilot and the navigator had many exciting stories to tell about their trip. The flying club members were all amused at the speed that the aircraft was prepared for jumping, the first lift was up within one hour of its arrival in Cyprus. Indeed having taken out all the seats, as we taxied out of the hanger Spyros our pilot remarked that we could not take anything else out if we tried. At that moment we discovered that we had forgotten the carpet in the back of the aircraft and everybody chuckled as the carpet went overboard to join the rest of the upholstery lying on the hanger floor. That afternoon we dropped Len Walton on his first static line sport jump. Jan Sparkes, Dave Brewin, and myself took her up to 7,000 for an abortive relative jump which was at least good fun, and also the first time that we had been able to get three jumpers into the air.

Since then we have started training first jump students as fast as we can, in spite of all the trouble in the Middle East recently, and some teething troubles with the aircraft. Most of our new members are now on their third or fourth static line jumps, and Len Walton is already on ten sec. delays. Reg Ruston is now making good 20 sec. delays and is learning how to turn, which is a splendid effort considering how hard he had to work for his jumps. We



Top

The old men of Cyprus Sport Parachuting after the jump. In the right hand corner Russ Smith can be seen talking to Mr. Ilias Ipsolidis of the Cyprus Ministry of Foreign Affairs.

Centre

Jan Sparkes 8,000 feet over Limassol Bay.

Bottom

Dave Brewin, Jan Parkes, and Adrian Hill before going up for the first 7,000 feet jump from the new aircraft.



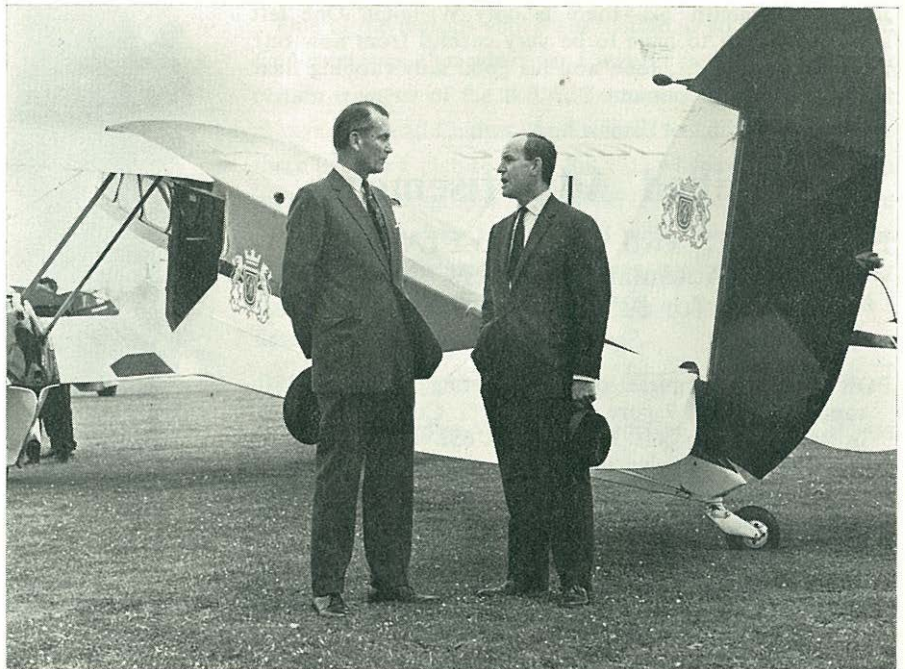


Training session given by Diplomatic Yak (Yak's hair has since been sheared).

were very sorry to lose Dave Brewin to the United Kingdom at the end of his tour in Cyprus. Dave has been one of the staunchest members of the club through thick and thin. We were also very sad to lose Terry Taylor for the same reason and we wish them all the best for the future. Our new equipment is being modified at the rate of two main parachutes per week, by Stella Flint at Akrotiri, and Joy Ruston is manufacturing sleeves at the same pace. We have reserves and static lines, coming from the United Kingdom shortly, thanks to our friends at Netheravon, who have done a lot of scouting on our behalf. Colonel Clark must have waved his magic-money-wand, because we now have a grant of five hundred pounds from the Army and the Royal Air Force with the promise of more to come from the Nuffield Trust. Royal Air Force Nicosia have found us some excellent accommodation right next door to the control tower and we have now moved in. We have an excellent packing room with two tables and storage space in the form of shelving, for approximately 200 parachutes. We do not need it all yet! We had a visit from Colonel Clive Samuels of the Airborne Medical Fraternity, who was most impressed with all he saw. The club house is a stone's throw away and consists of an office, a ladies' room, and two club rooms for general use.

We were going to have a pea-gravel pit dug during July, but unfortunately the bulldozers struck one or two water mains (uncharted of course) in Royal Air Force Nicosia on their previous job. We now hope to carry out this job during August. We did a display for 73 Squadron Fiftieth Anniversary using the Colt and the Tri-pacer so that we would have four jumpers with smoke. The practise on the previous evening was absolutely perfect—but the actual jump was terrible with parachutes littered all over Akrotiri. What was that old saying about the dress rehearsal? The

Lt-Gen. Charles Harington, K.C.B., C.B.E., D.S.O., M.C., Chief of Staff (left) accepts a de Havilland Rapide aircraft on behalf of the Army Parachute Association from Mr. D. O. Randle, Managing Director of Rothmans of Pall Mall (Export) Limited at Netherhaven during the Army Parachute Championships held on May 31st., 1967.



funny thing was that Jan Sparkes did the spotting and nobody could find him until all the bars had closed after the show. Good old Jan! There have been very few injuries, but perhaps the silliest was that which occurred to John Brown who having just landed after his second jump, stepped backwards down a pothole and broke two bones in his foot! However, in spite of minor mishaps like this, and the usual frustrations that are part of sport parachuting, the students are coming in week after week. This is a very healthy sign for no club can survive without a constant stream of new members.

There have been several inquiries from visitors and I feel that we should answer their questions in this magazine and thus save a considerable amount of letter writing. Visitors are very welcome and to make a visit worthwhile it might be a good idea to make up a small party of six or seven people, one of whom ought to be a B.P.A. instructor. Otherwise, unless you are a general permit holder, you will have to jump at the weekend only. Cyprus is a very windy island during the long summer afternoons, and so we only jump in the mornings. Autumn and Spring are the best times to visit the island, and from a parachuting point of view this is the time of year when you can jump all day—every day. If you want to pay us a visit please let us know two weeks in advance of your arrival; remember to bring all your B.P.A. documents, your helmet, boots, coveralls, and goggles. If you would like accommodation arranged for you with the Services or with a hotel please let us know.

Once we have our Pea-gravel Pit we will then be able to start serious training for competition parachuting. Later this year we intend to organize a hit and run competition, and next Spring we might try something a little more ambitious. We hear that Ron Griffiths may be coming out to Cyprus in September—so bring your kit Ron. I would also like to wish Andy Porter and Pat Reardon my very best wishes for the future, they are getting married in New Jersey this month. So—there is only Write-Off One left and I am going to have to be very careful from now on! I can see Lawrie St. John and his good lady rubbing their hands right at this moment.

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Brian David and Mike Turner

Relatively Speaking

Dave Waterman

At the time of writing the B.P.A. Team for the Adriatic Cup is busy training at Pau in France.

What a God send Pau is. The Common Market may be closed to us but we always have Pau. Not a word to de Gaule. This is due, of course, to the efforts of Mike Heerey, who until recently was O.C. the Red Devils Team, and is now Team Captain of the B.P.A. Team, and General Manager of Volkswagen in London. Welcome to civvy street, err . . . Major, err . . . Mike, err Mr. Heerey or what ever one calls an ex-army officer. As a token of our appreciation I suggest that all 2,000 odd members of the B.P.A. buy a V.W. when next they change their car. Two members of the Green Jackets have already bought a V.W. Motor Caravan each, just the job for dragging your entire family around drop zones including your mother-in-law.

But seriously, some people might say that not enough of the B.P.A. executive are active in the sport. Well here's one who is . . . Enough said.

One of the reasons why I was unable to go to the Adriatic Cup meet was, that whenever I was far from the pit when a certain member of the B.P.A. Team was doing accuracy he always got Dead Centres. And wanted to know why I wasn't there to take a picture of it. But . . . whenever I was in the pit to take photographs he ALWAYS zapped out! So you see if that happened in Yugoslavia I would be lynched by the British team. The second reason was, my wife was expecting our first baby on the 19th, the start of the meeting. Did I hear somebody say "Bad planning".

On turning up at Weston a couple of months ago, I was greeted by a couple of members of the Falcons with "Here comes Mr. Sourgrapes". Must have been something I wrote. I am told by official sources that the publicity value of the pictures and the film of the Falcons six man link has been assessed at £20,000. Now perhaps they will speak to me again.



Left

**Mike Turner shows the way to the British Team,
on the button at Western**

Below

Keith Jones





What a suspicious and inhospitable bunch we are. The way we treat visiting fellow jumpers on our own club DZs leaves a lot to be desired. Greeted with "Of course you'll have to follow on behind our own jumpers, that's if there is a place", and "Day or month membership is 10/-".

Wouldn't it be nice if we treated them with the same courtesy we would, if they visited us in our own homes. After a document check of course. I cannot see why providing a person is a B.P.A. member he would have to pay day or monthly club membership of a club he is just visiting for a day.

If all clubs dropped this practice and treated visitors as I have already said, as if they had dropped in at your home, what a nice atmosphere we would have in the sport. We have enough people against us with out fighting each other. In France of course, this works very well, but then they have been used to visitors from all over the world for sometime now.

Left

B.P.A. Team Member at Aldershot Show

Editorially yours . . . *(continued from page 4)*

Talking about the Nationals at Netheravon makes us wonder whether many of our readers realise the tremendous help given to our sport by a number of prominent Companies, organisations such as the Daily Telegraph and Rothmans or GQ and Irvins. Possibly some might suggest that they do it for what they get out of it but this is by no means the truth. It surprises us at times to see the tremendous effort which these organisations take on our behalf particularly where it is obvious that they reap no benefit themselves other than the satisfaction of supporting a young growing sport which needs their help. We would like to take this opportunity of acknowledging this help and thanking them for all their efforts.

We were amazed last month at the response which we

received from a letter in the American Magazine, Parachutist. Resulting from this letter we have received many interesting letters from the States and incidently many new subscribers to our magazine. Parachutist seems to be fortunate from the point of view of funds for its boasts some wonderful full colour covers. We only wish we had the money to put in the magazine some of the colour photos we get sent in. Maybe one day we shall be able to afford it but not yet. We might perhaps be able to cover the costs if some of the larger Companies who use photographs of BPA members reading their newspapers or drinking their beer mid air were to reciprocate by taking the odd full page in Sport Parachutist. Anyway we will send them all a copy and hope that their conscience will help produce a full colour cover for Christmas—Any takers?

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7th October, 1967

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Dear Dave,

I was touched by your impassioned plea for material in the Summer edition of "Sport Parachutist", so would you consider the enclosed article for publication in the Autumn edition?

Ever since I joined the B.P.A. earlier this year, I have read the magazine with some interest. Most of the articles, however, have tended to make me green with envy, wondering whether I will ever reach the stage of experience nonchalantly borne by the hardened sky-divers whose articles appear. So I thought I'd have a shot at giving the greenhorns' side of the story.

Yours,

IAN MACKENNAN.

"FIRST LOB"

How did I get myself talked into this? Nonsense, Mac, you WANTED to do it, remember? You let YOURSELF in for it. . . . Ouch! the instructor's doing his best to cut me in half, hauling on the reserve retaining straps. I don't feel all that apprehensive, as I've reached this stage a few times already in the last weeks, only to be balked by high winds or low cloud-base. This time, however, the one weekend I'd almost decided not to make the 50-mile journey from Glasgow to Strathallan, Saturday, June tenth dawned clear and calm, it seemed for the first time in months. Perhaps this time I'd manage to escape D.Z. duty—sitting for ages on the target, or charging after drift-indicators which seem hell-bent on reaching Sweden, or helping to field-pack chutes, while more experienced members cavort about the sky in a wind only a couple of m.p.h. too fast for beginners. No, perhaps THIS time it'll be different . . . six weeks' training, six weeks of absorbing beer and the mythology of parachuting after training sessions, and listening to jumpers' tales, told in long-drawn-out, minute details. . . .

Tom Dickson, our unflappable Chief Instructor, gives me a final check-out, and the Cessna arrives. Still no jitters, although I seem to take longer to fasten the strap of my helmet than ever before. Fingers all thumbs, for some reason. Under the starboard wing of the Cessna, I turn my back while Tom unloops and attaches my static

line—what's he up to? Hope he knows what he's doing—don't be daft, he's an instructor, isn't he? Then the awkward scramble on to the floor of the doorless cabin. How the blazes will I ever get out of this?

The pilot looks down with a friendly grin. "First time?"

I grin weakly and nod. "Yes." Or at least that's what I mean to say. What comes out is a falsetto squeak. My vocal cords seem to have seized up. The engine revs, and we move to the end of the landing strip. A group of other jumpers, busy "kitting up", pause to grin and wave. I wave back shakily, hoping they can't see my face.

During the take-off, curiously detached, I watch the starboard wheel bouncing and spinning under my right armpit, and the grass of the strip drops away. Then a glance at the mysterious array of instruments—which one's the altimeter?—oh, there it is—heavens, are we only at 500 feet? Looks more than that. So what will two-five look like? First sign of quease in the pit of the stomach. Keep your mind occupied, that's it—another look out of the plane.

Over Gleneagles Hotel—a sickening bank to starboard—there's the golf course—tiny men hitting invisible balls with invisible clubs—wouldn't it be nice to be safely down there with them?—Nonsense! A bit of self-discipline! What's that next to the golf course? A cemetery—look quickly away.

Then a pair of knees shove hard in my back. Off guard, I start to get up for exit, but am told in no uncertain terms to sit own again, and move forward so that the instructor sitting behind me can lean out to "spot". I furtively do a bit of spotting myself. What the Hell's he waiting for? I'll end up in Ireland if he doesn't—"CUT!" And a resounding slap on the back of my helmet.

"CLIMB OUT!"

Oh my God, here we go. . . .

Climbing out. The one thing (or so I thought at the time) that worried me. Imagine sitting in a space two feet by four, and only two of the four being available as door-space. Time and again I'd practised jackknifing my knees up as far as my reserve would allow, pivoting to the right on my behind, dropping my feet over the edge, and groping with my left foot for the undercarriage step situated *behind* the door. Hard enough to do on the ground, it should have been impossible with the slipstream trying to rip me off. It wasn't. It suddenly struck me as a giggle that I should be all that concerned about not *falling* off the plane when I'm about to *jump* off the bloody thing in a minute anyway. . . .

Out on to the step, right hand on wingstrut for balance, shocked by the strength of the slipstream. Now for a second or two to collect my wits. . . .

"GO!"

Really, he might have given me time to think! (Looking back, it's just as well he didn't!)

I'm not too clear about what happened next. I'm told I adopted a good stable position. As far as I'm concerned, I could have been doing cartwheels. The three-second count-off went by the board—who can count out loud when his stomach is trying to push its way through the top of his head? I let go a fearsome yell, and distinctly remember my hands, of their own accord, clutching after the plane, which must already have been a hundred yards away.

Confused sensations—falling, falling, eyes tight shut, remembering in my stomach the first time I was pushed high on a swing as a little boy. . . . Will it never stop? I must have been dropping for at least five minutes—the thought “Go for your reserve” flashes across my mind, but in that instant the harness tightens about me, and I let out a gasp like a burst barrage balloon. My head goes up; I cautiously open one eye, expecting to see a halo or a pair of wings—and—incredible! There's the double-blank canopy, such a lovely, lovely sight, not a sign of a blown panel, or a thrown line, or of any of the other gruesome things we've been warned to look out for.

But what's wrong? I don't seem to be going down! I'm not still attached to —no, what a ridiculous notion! Sit

back and enjoy the view— stop looking for things to worry about. And oh, yes—these toggle things. Try a pull at one. Gee, isn't that great? It turns! Now the other way. Whee! Ohmygod how did the ground get so close? Quick, feet and knees together, bend knees slightly, look at your toes, chin on chest, hands up the lift-webs . . . what else was there? What's it to be—front left, side left, quick, make up your mind, what a rate the ground's coming up at! Oh, it's to be a back left. Turn feet off left, peer under left armpit—slow down, ground, for Pete's sake!

THUMP!

Ouf! Am I all in one piece? That's too much to ask for. Wonder how long it takes a broken leg to—but no, I'm a bit shaky on the pins, but otherwise O.K.!

Unhook that reserve—damn these clips, you'd think they'd invent an easier—stop shaking, hands, it's all over! Now where's the target? Cor, I won't win any prizes for accuracy at this rate. I've a long walk ahead of me. Never mind, it was worth it. . . .

Worth it? I should say so! When's the next chance of a jump? Quick, where's somebody I can tell all about it—in long-drawn-out, minute detail?

Perhaps this is “The stage of experience, nonchalantly borne by the hardened Skydiver” that the author is looking for. Here Sgt. Brian Clark-Sutton, “Relaxes at 8,000 ft. over Weston on the Green.” *Photograph by F. S. Terry Allen.*



Letters to the Editor . . .

7 Hyde Park Garden Mews,
London, W.2.
8th June, 1967.

Dear Editor,

Whereas I wholeheartedly agree with Mr. Waterman (*Relatively Speaking*, Summer issue), in that too much regimentation could ruin Sport-parachuting; I do think he was being a little harsh on poor Colonel Blimp.

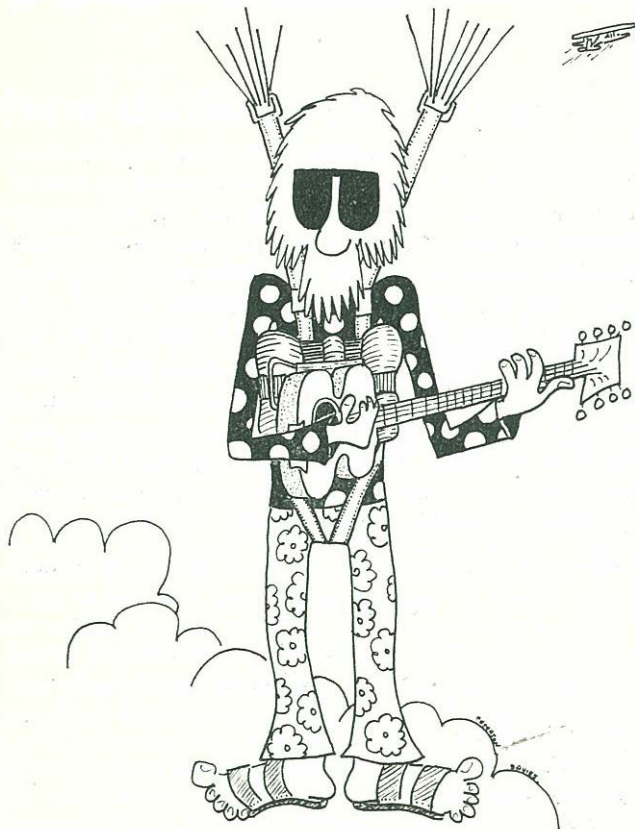
After all I am sure Colonel Blimp was only worried about the parachutists image; for long hair whilst in itself acceptable could lead . . .

. . . to anything.

Colonel Blimp could be justifiably worried for the future, sugar-lump-link-ups and psychedelic-dead-centres included.

Yours faithfully,

P. J. W. DAVIES.



110 Wall Street,
New York, N. Y. 10005.
June 27, 1967.

British Parachute Association,
Artillery Mansions,
75 Victoria Street,
London, S.W.1, England.

Gentlemen,

I continue to receive, with pleasure, the quarterly publication of "Sport Parachutist."

Through reading these articles, I note that we are quite spoiled here in the United States in terms of relative freedom from regulations, good weather, and an abundance of equipment.

Sometime ago, a colleague and myself undertook a flying vacation which pivoted around our favorite two sports, skydiving and scuba and wrote a travelogue which was published in the June issue of *Parachutists Magazine*. As no copyrights are involved and there is no conflict of interest, I should like to know if you would perchance be interested in this article.

Awaiting your reply and wishing you GOOD JUMPING! I remain

Very truly yours,

GEORGE M. KRIEGER.

Home Address :
155 W. 68th St.,
New York, N. Y. 10023.

Dear Mr. Drake,

In my last issue of "Parachutist", I read a letter from you and became interested in your magazine "Sport Parachutist". But before I rush into buying a subscription, I would like to buy a copy of it so that I may compare it to the skydiving magazines I already buy. Enclosed is a dollar in the hopes that it will cover all costs for postage etc., if it doesn't, please notify me and I will make up the difference. Also please let me know the price of a year's subscription for overseas mailing.

Being a girl, I am very interested in finding out about what girls in your country who skydive are like. Do you have many girls there who jump? I am also interested in

how you train students, whether or not you have an organization similar to our Parachute Club of America. What kind of equipment — P.C.'s cross-bows, I.I's, harnesses, reserves, altimeters etc., is used, your safety, and just generally what skydiving in your part of the world is like. Hopefully, your magazine will answer my questions. Thank you for taking the time to read my letter and I patiently await your reply.

Sincerely yours,

MITZI SAPP.

My address:

Mitzi Sapp,
15005 So. Normandie,
Apt 4,
Gardena, California 90247,
U.S.A.

Dear Sir,

In reply to Miss Pennington's letter in the last issue of *Sport Parachutist*, I entirely support the council's decision to enter refusals in log books and here give my reasons.

I have seen a number of sport parachute refusals both as a student and as an instructor, and there is no doubt to my mind that the following points are relevant.

1. A refusal has a disturbing effect on the rest of the students in the aircraft especially if any of them are "first-timers."

2. A refusal shows that the student is far from being "switched-on."

3. If a parachutist is having an "off-day", he should have the sense to say so on the ground and not waste time (and someone else's place), by going up in the aircraft and hoping everything will be alright. (I wonder if this attitude of mind was responsible for any unsolved fatalities?)

4. If a parachutist refuses, he becomes, not unnaturally, extremely embarrassed and, more often than not, asks for a second attempt, not because he wants to go but because he feels he ought to, to redeem his self respect.

5. In the majority of cases once a student has refused once he will do so again and again (if given the chance).

Dear Miss Pennington, let's not get carried away with all this rubbish that's written about the psychology of sport parachutists; if a parachutist gets to the stage where he has to sit and psycho-analyse himself and decide why he is parachuting, then in my opinion he shouldn't be doing it. He either parachutes because he enjoys it and everything that goes with it or he doesn't do it at all.

I sincerely believe that if a student refuses once he should only be given one more chance and if he refuses again he should be strongly advised to pack in the sport for his and everyone else's good. Instructors don't find this a pleasant duty but its often necessary to be cruel to be kind. At Army centres the luckless student doesn't even get a second chance.

Thus I feel that refusals **MUST** be entered into log books so that:

1. The Instructor is forewarned that he has a shaky student on his hands, and this is important.

2. The Instructor can place the student at the end of the stick and thus avoid upsetting other students by another refusal.

3. The student is constantly reminded that a refusal is not a thing to be treated lightly and that he should either give up the sport altogether or enjoy it to the full without upsetting himself or any of his fellow jumpers again.

Yours sincerely,

CHARLES SHEA-SIMONDS,
D 192.
Secretary Army Peregrines.

Mr. Drake,

I read about your magazine in the June issue of *Parachutist*. Would you please send me information on how to subscribe to your Magazine. I would also like information on how we, over here, can, if possible, get a British Parachute License A, B, C, D requirements, etc. We have a large pea gravel target here and welcome anyone from England to jump with us while he is in America. We are in the deep South, twenty-five miles from Mobile, Ala. Most of our jumpers live in Mobile. If you would like, I will send pictures and news of our drop zone for your Magazine. We have three ex-members of the U.S. Army Parachute team in our club. Jim Rhea, an ex-member, and myself own the airplane we jump from.

Always a pleasure to hear from our British Neighbors.

Good Jumping,

BARNEY LUSK.
Sec., Gulf Coast Parachute Assn.

P.S. My address is
1008 Shadybrook Dr.
Mobile, Ala. 36606
U.S.A.

"We tried a link-up but had to break off at 3,500. I tracked away, unpacked, and was just looking round when CRASH. He swung right through my chute. It was a hell of a mess."

By some miracle both jumpers got away with it. We all know the lower man has right of way. So what was the high man doing that day at Thruxton? Following a plan? Keeping his eyes open? Concentrating? The answers are pretty obvious. And so a few seconds' negligence put his own and his friend's life in the balance.

It isn't enough just to break off. You must move well apart and know where you and the others are going. Relative work more than anything else needs detailed and careful planning. Accidents can happen to even top class jumpers, but most of them can be avoided by sticking to the common sense safety rules.

SAFETY NOTES

From the Safety Committee

If you're making your first attempts at relative jumping discuss the whole thing with your instructor; and read the BPA Safety Regulations carefully, very carefully. All BPA instructors hold copies—the relevant parts are Section XVI, 5 to 13. They are not laws or commands. They are common sense based on a lot of experience. It doesn't take much effort to find out—just ask.

A seemingly small bad decision escalates into a situation that puts a man, and even a club, in jeopardy. Take, for instance, the man who stuck in the door over Blackbushe recently. The exit point was over Yateley village but Number 1 was stuck "for only five seconds or so". When Number 2 got out he had no chance of making it back to the airfield, and found himself among the population of the village—several of whom are very actively anti-BPC. Neither thought of going round again. Why not?

In other words, in this game you've got to *think*—not just about dropping out of a plane with a chute but *where* you're dropping, *who* is with you, *what* will be the effect of your arrival on the ground. This is an adult sport, and the word adult implies a high degree of responsibility. Responsibility is what this column is and will be about.

Parachuting Statistics 1966

(Including R.A.P.A. and affiliates abroad)

Total number of descents 17,647 (14,450 in G.B.)

Injuries:

Slight	...	...	...	...	...	...	21
Severe	...	...	...	...	...	...	16(a)
Fatal	...	...	...	...	...	...	2(b)

Malfunctions 12(c)

Reserves deployed intentionally 25

non-intentionally 11

New G.P.'s issued 94

New D Certificates issued 29

New C Certificates issued 33

(a) 1 fractured vertebrae, 1 fractured spine, 1 cracked vertebrae, 2 back general, 3 broken legs, 6 broken ankles, 1 Potts fracture, 1 broken foot, 1 cartilage.

(b) 1 non-member.

(c) I.T.U. 11 P.C.'s.

BPA Annual Raffle

First Prize:

IRVIN PARA-WING

Second Prize:

1 Gallon Grants Standfast Whisky

* * *

Other prizes include:

Books Ties

Safety Helmets

Booze

Tankard

Ash Trays

Ladies' purse

Brief Case (leather)

Roneo Squirrel Filing Cabinet

IRVIN PARAWING ASSEMBLY

TECHNICAL DESCRIPTION of the IRVIN PARA-WING ASSEMBLY

Development of the commercial design of Parawing designated the 'Eagle' is now complete and it is hoped to commence manufacture in this country sometime in September. This version of the Wing is in fact a slotted as opposed to solid fabric design and this gives a consistently good opening characteristic associated with acceptable shock loads. In fact the performance is considered to be suitable for parachutists of moderate experience as well as those of general permit standard.

As soon as assemblies become available in this country, it is hoped to stage demonstrations where B.P.A. representatives would be welcome to assess the performance.

DESCRIPTIONS

WING

The IRVIN EAGLE PARAWING is a non rigid wing manufactured from imporous synthetic fabrics. Its shape, during flight, is maintained by internal air pressure acting in conjunction with eighteen harness suspension lines. The length of each individual suspension line and its point of attachment to the wing have been chosen with precision after extensive trials in the United States. The optimum rigging condition compatible with safety has thus been attained.

The total wing fabric area is approximately 395 square feet and manoeuvreability in flight is achieved by using the two control lines attached to the aft outer wing tips. The PARAWING has a lift/drag ratio of 2.5 to 1 and a steady vertical rate of descent of 10 ft./sec. on an all up weight of 210 lb. The wing can be purposely stalled in flight but recovery is rapid and positive.

HARNESS

The harness is of robust design consisting of two shoulder straps, a chest strap and two leg straps and is manufactured from a durable nylon webbing. Fastening and full adjustment is effected by means of ejector snap-hooks and quickly adjustable 'D' rings fitted to the chest and leg straps. CAPEWELL canopy releases are incorporated and 'D' rings provided for the attachment of a reserve assembly.

PACK

The form fitting pack is manufactured from hard wearing synthetic materials and is of the three cone, centrally opening type. The design permits easy replacement of damaged closure flaps. One inch wide flat elastics are fitted to withdraw the closure flaps prior to deployment. The ripcord housing is of NEOPRENE covered SUPER-FEXIT construction.

DEPLOYMENT SLEEVE

It is essential to use a specially designed deployment sleeve with the PARAWING and this is manufactured from high grade cotton fabrics reinforced with nylon webbings for load bearing purposes.

EXTRACTOR PARACHUTE

A single vane type auxiliary parachute, embodying a coiled spring, is used for extracting the deployment sleeve.

ACCESSORIES

AUTOMATIC PACK OPENING DEVICE

The IRVIN HITEFINDER automatic pack opening device can be fitted to the assembly as an optional extra if required. Further details will be supplied on request.

INTRODUCING THE DOMINATOR

J. T. Basnett, Esq.
Project Designer,
G.Q. Parachute Co. Ltd.
Woking Surrey.

For some obscure reason, the drawings and templates did not appear too frightening, but when the fabric was cut and sewn together, it was then a constriction came into the throat.

For a number of advantageous reasons, it was decided that the canopy would be larger than the 'shhh! you know who's' design, but of course, the dimensional increase was not without problems. For instance, the intention was to provide a much slower rate of descent, but at the same time, to maintain equality of inherent drive. To accomplish this, the drive thrust output of the design must logically be greater to offset the drag area increase. With this in mind, special aerofoil flying surfaces were developed. In all, there were eight such surfaces incorporated in the design. As well as providing lift, brakes, turn, etc., each section would contribute to the thrust output. Of course, when the canopy was assembled and lay on the inspection table, the dimensional characteristics of the slots triggered off a wasteful shot of adrenalin, and, having no direct emergency to contend with, the hormone re-routed thus causing the trachea to constrict and hair to stand on end. As we stood there viewing the inert material, the machinist must have sensed my misgiving. Her face portrayed sympathy. She had carried out her task well.

A few days later the canopy was taken to a local airfield for ground tether and control setting. Once the spiral picket was screwed into the ground and the canopy firmly anchored, the battle commenced. The first part of the operation was to connect two branch control lines to each of the surfaces. In turn, the eight branch lines on each side of the canopy would then be linked to the respective left and right hand main control lines. Seldom have I found a compromising wind, and this occasion was no exception. For the first hour or so, the taming process was exasperating, exhausting and dangerous. Frequently, with a branch line in hand, a quick sprint from the harness end to the canopy would become abortive. As if sensing my intention, the canopy would lift, roll or swing. It is on these occasions that one is painfully reminded of the physical protrusions of the human frame. Chin, ears, nose, lips, all a target for taut lines to abrase. 'Yes chaps, you're dead right', it



caught me there as well. Several times I must have looked like Jerry Lewis, knock kneed with agony, lines between legs, emitting a Tarzan ape call.

Once the control lines were connected, the more delicate adjustments followed. Eventually, the ultimate trim was obtained. All the surfaces were flying at the correct angle and functioned in perfect unison. It was particularly inspiring and rewarding to study the fruits of labour. With brakes off, the canopy would lift to a 45° incline and hover against the wind. When the brakes were applied, it would squat back onto the ground like a giant bat sitting on its haunches. Certainly the brakes appeared good, but the potential forward thrust looked more than adequate. This was signified by a marked compression across the front periphery during maximum lift conditions.

Due to bad weather, the first flight was held up for three weeks. Unlike the early days, there was a marked absence of pre-jump mental dramatics, though I must admit, once or twice the occasion did arise, when, on the threshold of sleep, the vision of those eight slots caused the odd vulture to make a casual circuit and bump within the limits of the abdominal wall. Of course, the visionary aspect had some use since my interest in 'Capewell one-and-a-half shots' developed overnight. Again a number of dry runs were made at undoing the releases, so much so, that if the Capewells had been six guns, then man, the West had yet to see the fastest draw.

It would not be true to say that the first flight was uneventful. The mystery tour began as a simple eight second fall. With what must have looked like a love sick dog-bitch casting an over shoulder eye at her sniffing mate; similarly, my head was skewed round to watch the pack as the ripcord was pulled. Not to be confused with panic, but the mind at this stage selects a speed of sixty-four frames per second. The sleeve lift off was spiral free which forecast a non twist opening. Particular emphasis is placed

on this point since my main concern was to have free access to the controls in the shortest possible time. The peak 'G' load was by no means violent and the head was quickly back in position to view the final inflation. The fabric seemed to make more noise than usual. This appeared to be associated with the aerofoil surfaces and large slots. Daylight was most apparent through the latter.

At the last stage of peripheral spread, the hands were at the ready on the controls. As the glide speed built up, the forward periphery commenced to bend under and in. Following the inward bend, a marked flattening spread across the A panels then upward to the panels B and C. At this stage the rigging lines began a symphonic buzz.

Suddenly, and not unexpectedly, the lower front half of the canopy made a finishing sprint towards the centre line on which it wrapped in a 'V' shaped configuration. This was accompanied with a weight lessening sensation similar to that of a lift moving down. The whole sequence had taken but four to five seconds.

With brakes hard on, the buzzing and draught diminished. A small jolt signified all was again well. Knowing the remedy was effective, the cycle was repeated and studied with less apprehension. Again the brakes were applied, but this time, were gently inched back to locate the peripheral 'stay', 'fluctuate' and 'collapse' positions.

Strange as it may seem, this flight was considered highly successful. Everything had gone according to plan. The idea was simply to give the canopy a power overdose, from which, analysis was more readily attainable than by using an underpowered version. The latter would possibly have taken months of timid modification and trials before the same conditions were obtained. As for the surplus power, there were other ideas afoot for which this would be utilised. We were not all out to have an edge on speed.

At this stage it would not be wise nor beneficial to go into the full details of the modifications. However, since the rear left and right hand aerofoil sections tended to flutter and become choked by fore and aft canopy compression, these were removed. No. 3 aerofoils were reshaped to approximately 1.5 times the original width.

For me, the next trial was vastly disappointing. High wind conditions necessitated the use of a 200 lb. dummy. However, humiliation and sulkiness quickly subsided as the aircraft turned for the run in at 1,000 ft. From launching to fully open, the time was 3.5 seconds. The main focal point was the front periphery. There was a slight compression, but no more than anticipated. From earlier drops with other projects, we knew the air conditions to be extremely turbulent. Oblivious to such trivialities, the canopy flew with dominance and majestic grace, a gyro could not have produced a more stable flight. Eventually, and as if contemptuous of my 'wind chicken attitude', the canopy, with silent dignity, gently deposited its charge a few yards in front of me.

Hereinafter, all the flight trials were live. As a gradual accumulation of performance data was acquired, suspicion and apprehension rapidly dwindled. Many features were now being highlighted. All deployment and subsequent openings were clean, positive and situated within comfortable 'G' bracket. A 16mm. head camera was no problem to include. Apart from underestimating the extensive glide capability, the canopy was incredibly easy to handle.

Under adverse conditions of extreme humidity and turbulence, the canopy maintains an aloof indifference. Relaxation is automatic since there is no juggling or requirement to dampen out oscillations. You simply sit there, rock steady, with ample time to weigh up the next move. Perhaps, quite a few will agree, there is a lot of nonsense talked about canopy inherent speeds. For what it is worth, at 210 lb. A.U.W. the inherent drive is 14.5-15 ft./sec., i.e. 10 m.p.h. The 'high average' rate of descent is 12-12.5 ft./sec. Note: 'high average' refers to the canopy descent time from 2,000 ft. to G.L., which includes moderate use of controls, i.e. brakes, turns, etc. The actual touch down rate is less and calculated to be in the region of 11-11.5 ft./sec. For readers who may be interested in direct comparison, a trial was recently carried out where the trial's canopy was set to drive cross wind with the excellent American 'you know who's canopy'. On this occasion, the trial's canopy was at 235 lb. A.U.W. and the U.S. canopy had an A.U.W. of 215 lb. The drive of each appeared exactly the same. I realise, of course, the results of one trial is of little value, but since the air conditions were not abnormal and both canopies were in close proximity working a similar flight path pattern, nevertheless, the trial's canopy remained airborne eight seconds longer than the pace maker.

What of the brakes and stall? With full brakes, the inherent drive is completely shut off. As for the stall, you can forget it. If it exists, there's no one around with arms long enough to reach for it. Don't get the idea that you may, on occasions, be bugged with surplus height. You will find that approximately 12in. beyond the maximum brake position, which is approximately chest level, is enough to knock the crown off any king size thermal. How about stability with full brakes? Sorry! No judder, no shakes or rock 'n' roll. Twisting is definitely out. The one occasion where a slight canopy twitch was experienced was due to the auxiliary and sleeve tapping one of the flying surfaces. Good news for the salvage and hooker types. The turn and recovery factor is exemplary. From *start* to *stop* a 180° rotation can be executed in 2.5 seconds. Maximum bank attitude on a full 360° turn is 25°. Attitude recovery factor is 1.5 seconds. This means that any attitude the user is likely to get into, for example, a fast salvage hook with an abrupt stop near the ground, the canopy restabilising time is 1.5 seconds. The user, in fact, will find it difficult to produce an unsafe attitude, even so, he will have entered the safe region within $\frac{1}{3}$ of a second. This feature is attributable to the location of the oscillatory datum which is approximately one third rigging line length *below* the canopy. When you see this parachute manoeuvring, study the reactions, especially at the end of a sharp turn. Where other canopies will dive in, this design excels; the dive will not materialise. The low position oscillatory datum, together with an accelerated nose up action, will in future keep more parachutists in the air and less hospital beds occupied.

To conclude with, I do not profess to be a pea gravel disc jockey, but on the occasions when I've decided to have a go, the result has not been disappointing. I am sure, from the novice to the champions, all will appreciate the additional potential to individual skill which this canopy will provide. The name is . . . 'DOMINATOR'.

THE SETTLING SENSATION

Earl Duncan

If you're an experienced parachutist, you can carry on to the next article, for this is written primarily for the beginner, just going on to Free-Fall. Humbly, it is offered secondly as a possible briefing aid for Instructors dispatching students.

I have a dozen or so entries in my log book, in the first twenty jumps, that could have been, nice, stable, face-to-earth delays, had I waited one more second, or had someone told me about the "settling sensation". An experienced parachutist, who "dumps" out the door in various sundry body positions, accommodating a quick exit, for example, has a natural, relaxed body position that he automatically assumes immediately upon becoming "face-to-earth"; a body position that he has found to be most comfortable for him, in relation to his physical build, placement of equipment, etc. He no longer notices, or rather, pays any mind, to the transgression from, "sub-terminal unstable", to "stable". He has learned to accept the slight period of head-high or head-low, right-side-down, etc., as he is becoming stable.

Not so with the beginner. First of all, he is in (or, we hope he is in . . .) a good stable position, arms and legs wide-spread, good arch, head thrown back, face-to-earth and counting. In this extreme spread position, and bearing in mind that his body is most probably somewhat rigid and tense, a reaction will occur, much like the motion of rockers on a rocking chair, and he will experience, what feels to him, like a considerable amount of "rocking" or "settling" as he becomes stable, or as he approaches terminal-velocity.

This, often times, is misinterpreted by the student, as, "becoming unstable", and, if he has been briefed to pull, in the event that he should feel himself going unstable, then of course, he will do just that.



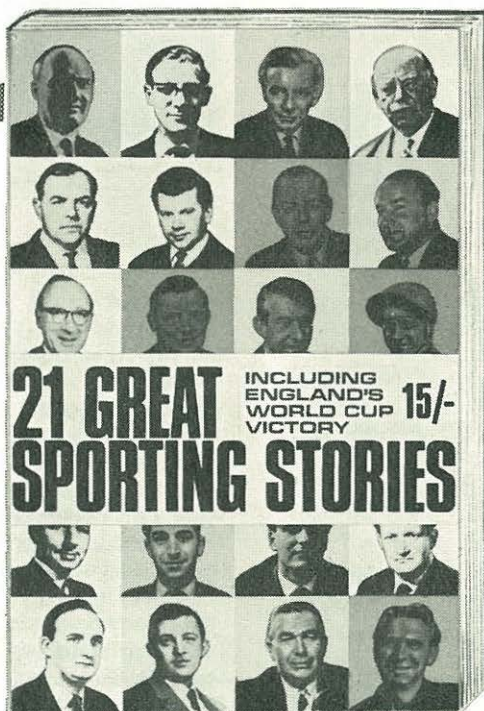
A "wave goodbye" from 12,500 ft.

I think most pre-jump briefings for the beginner starting on Free-Fall, go something like this . . . "Now, as you leave the strut, I want you to assume a good body position . . . a nice wide spread with the arms and legs, good strong arch, throw your head back, and look up at the aeroplane. . . . Now, if at any time you feel yourself going unstable, pull immediately. . . ." Well . . . unless he's been forewarned about this rocking, or settling sensation, and told to wait it out, just one more second, and not to break his arch by coming in to pull, that last bit of instruction, has just cost him his five-second delay. No one ever told me about it. I just finally got so angry at constantly going "unstable", that, out of sheer spite, I waited a second or so longer one jump, before coming in to pull, and found to my complete surprise and delight, that it wasn't that I had been unstable . . . but rather that I hadn't yet allowed myself to become stable.

In my opinion, little seemingly insignificant points, such as this, may mean the difference between a student learning and progressing, or becoming frozen, as I was, in a particular phase. Points such as this, and others, which are not in most Instructor's critiques (such as failing to forewarn a student just before a jump from a Cessna type aircraft, that, the first time he sits in that open door during take-off and climb-out, that it's going to "scare the hell out of him"! Ask some jumpers sometime . . . even some of the D-Licence holders don't like riding in that open door) are in their own way, just as important, and in some cases, more important, than the major points of parachuting.

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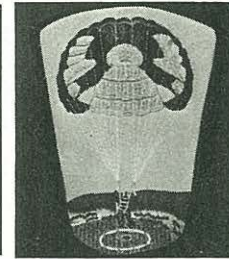
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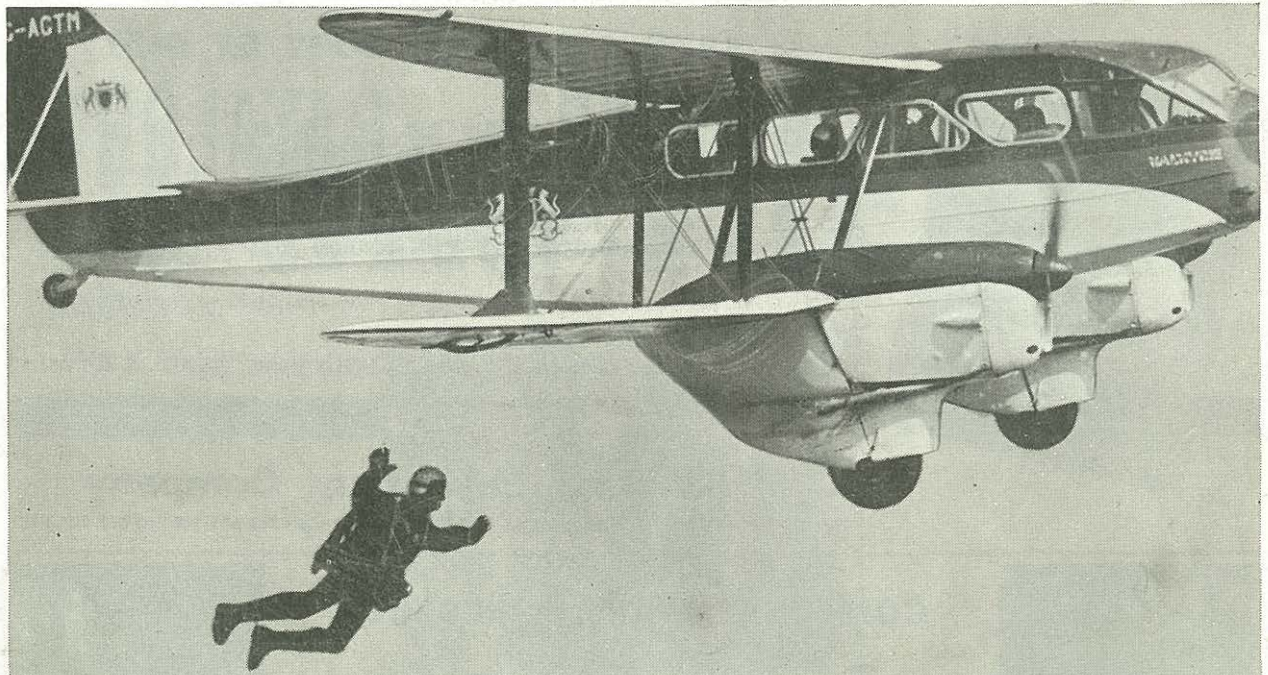
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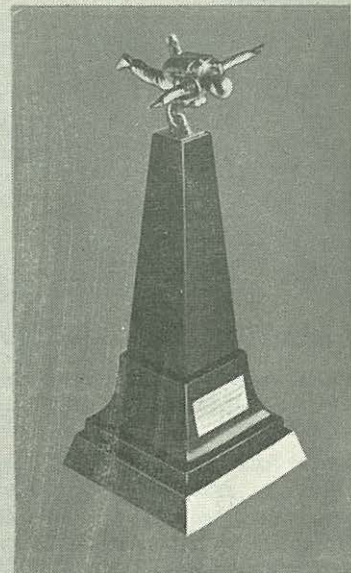
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