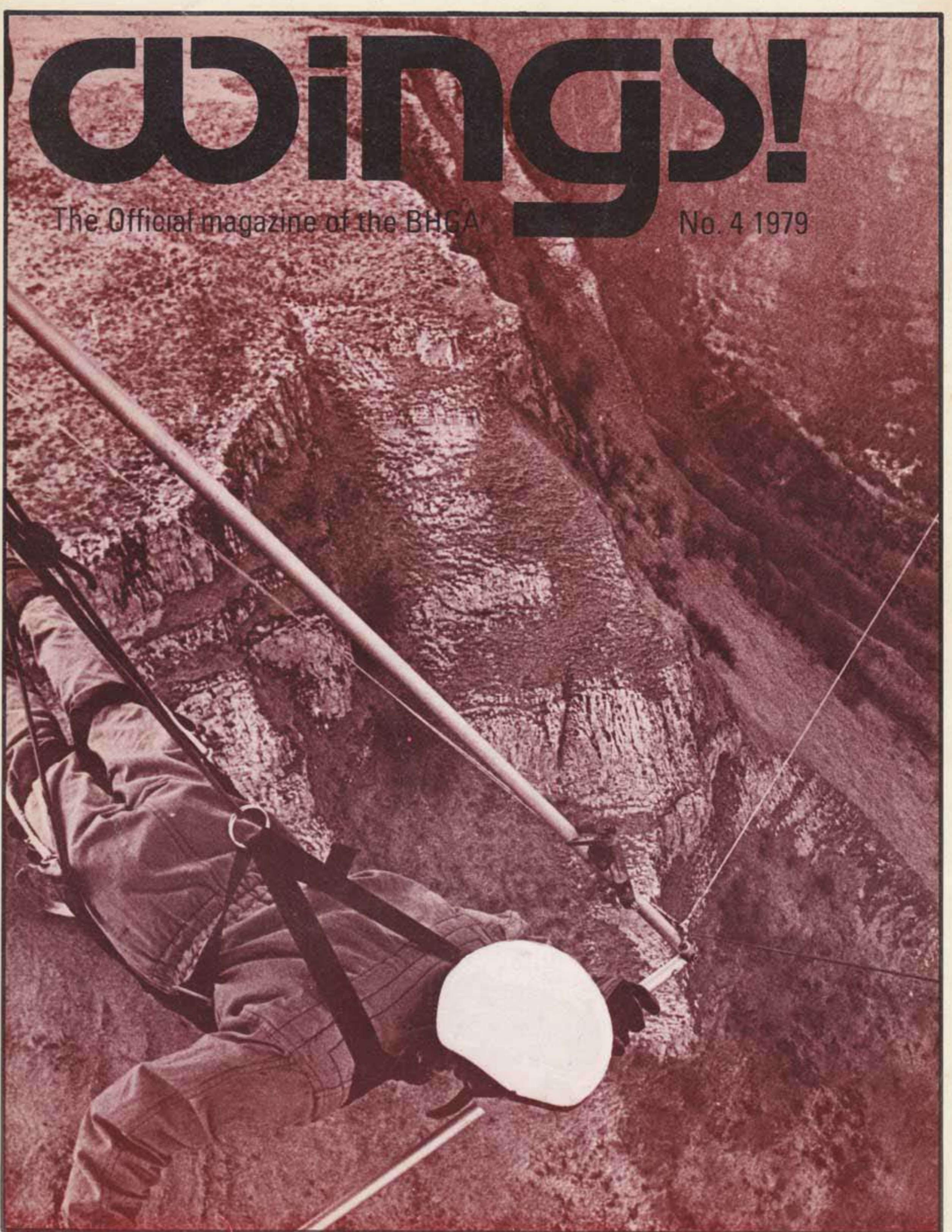


# Wings!

The Official magazine of the BHGA

No. 4 1979



# Cyclone by Chargus

## Cyclone 180

A/R 7.2  
Area 180 square feet  
Span 36'  
Root 7.66'

Knock down length 12.5' (no spanners needed)  
**Price £595.00 inc. VAT and bag.**

## Cyclone 165

A/R 7.1  
Area 165 square feet  
Span 34'  
Root 7.66'

Knock-down length 12.5' (no spanners needed)  
**Price £590.00 inc. VAT and bag**

Completely anodised airframe.  
All push-pinned control frame.  
Fully cambered Bainbridge sail with preformed battens, and droop tips.  
Also employing our proven Vortex generators.  
Single outer deflexor for high speed canopy control.  
Range of twelve colours available.

**Chargus Gliding Company,**  
Gawcott, Buckingham  
Telephone Buckingham 4321

Photography: Richard Kenward Photography





# Wings!

1979 No. 4

**Editor:** Jeannie Knight, 10 Spring Gardens, Washington, Pulborough, West Sussex. (Ashington 892770).

**Layout Artist:** Mike Hibbit, 2 Mitford Close, Whitley Wood, Reading. (0734) 864543

**Commercial Editor:** Lesley Bridges, Yard House, Wentnor, Nr. Bishops Castle, Shropshire. (Linley 322)

**Editorial Board:** Jeannie Knight, Tony Fuell, David Worth. **Area Reporters:** Scotland: Ian Trotter, North: John Hudson, Eire: Roy Hammond

South West: Steve Moss, Wales: Rob Symberlist. Printed in Great Britain by Blackburn Print Ltd. Hove, East Sussex.

**BHGA Council:** President of Association: Ann Welch, OBE., Chairman: Reggie Spooner (Cowes 292305), Treasurer: Derek Evans (Sevenoaks 59995)

Brian Milton (St. Albans 55231), Jeannie Knight (Ashington 892770),

John Hunter (Hatfield 71027), Ashley Doubtfire (Marlborough 3021), Roy Hill (0865 735204),

Mike Caston (0996 73755), Rob Stokes (07018 86814)

Northern Ireland: Chris Simmons, **Council Officers:** Technical Officer: Alan Barnard (Crewkerne 72478)

Training Officer: Keith Cockcroft (Halifax 882883), Registration Officer: Terry Dibden

(Wimborne 886464), Medical Advisor: Dr. Dunstan Hadley, BHGA Solicitor: Anthony McLaren (Halnaker 457)

Radio Communications Officer: John Westcott, Development Officer: Barry Blore (0235 834690),

Secretary: Chris Corston (Taunton 88140)

British Hang Gliding Association, 167a Cheddon Road, Taunton, Somerset, TA2 7AH.

4	Editorial
5	Airmail
8	Treasurer's Report
9	First Powered Hang Gliding Flight by Christopher Anthony
10	The Day is 24 hours long by John Hudson
12	Hang Gliding in Spain by Alan James
15	Flight from Kilimanjaro by Ashley Doubtfire
18	New Insurance Rates by Reggie Spooner
20	Impressions of Flying in South Africa by Ken Messenger
22	Fatal Accidents 1978 by John Hunter & Tony Fuell
27	Information
28	Training Column
30	Small Ads

# EDITORIAL

Tow-launching will bring about a significant transformation within hang gliding, making us less dependent on sites and hills. There is a danger that its great potential could be lost through lack of coordination of information, ignorance and stupidity.

As our last issue was in the process of going to press, containing news of advancement of towing systems, we received reports of a towing accident.

Eight flyers had attempted to tow a glider up behind a vehicle on an air strip in Gloucestershire. Seven of them were non-BHGA members and the eighth was a BHGA member who should certainly have exercised a greater degree of responsibility and common sense.

Reports indicate that their tow-rope was hopelessly inadequate and their knowledge of towing equally deficient. The rope broke and the pilot mercifully escaped with facial and back injuries. He could quite easily have been killed.

Repetitions of this type of incident will only retard and restrict development of tow-launching. It is vital that everyone involved in any form of towing should register with Roy Hill so that information can be pooled. Any significant dangers or essential knowledge can then be circulated rapidly to those who need the information.

Those at the centre of tow-launch development have an important contribution to make. Their co-operation is the key to the whole system progressing safely to the advantage of hang gliding as a whole.

At the AGM they gave the impression that each party was reluctant to divulge other than skeleton information. They appeared to guard their research and systems with a jealous zeal, so that little centralisation of information could be made.

A fear that premature information in the wrong hands could lead to disastrous accidents is understandable, but, conversely, too little information can be lethal.

Tow-launching is not something to be played with, as was illustrated by the recent accident. It must be approached with care, common-sense and some degree of knowledge.

Even the individual pockets of launch development scattered throughout the country have things to learn from each other. A centralised system of registration and information on development might cost a little pride, and conformity by pilots might rankle with some — but at least it would save unnecessary accidents.

The choice is there. Will the right one be made?

JEANNIE KNIGHT

## WINGS! CONTRIBUTIONS

Good black and white photographs are urgently needed for the cover of *Wings!* All photographs used on the cover will in future be paid for at the rate of £10.

Similarly, good quality articles for publication will be acknowledged financially. Articles of 1,000 words will be paid for, if used, at rates of £5. Articles accompanied by suitable black and white photographs may be paid more at the editor's discretion.

*All contributions to Jeannie Knight, 10 Spring Gardens, Washington, Pulborough, West Sussex. Contributors wishing to have articles returned should include a stamped addressed envelope. The editorial board reserves the right to reject any articles which do not reach the standard required.*

## LETTER FROM BHGA'S NEW DEVELOPMENT OFFICER

Having been employed by the BHGA since 26th March 1979, I thought it time to introduce myself, outline my duties and state my intentions.

I will not bore you with personal details, suffice to say that until I accepted the appointment of Development Officer, I had been happily married for 21 years and even had time to father two children.

My basic academic qualifications are:

- (a) Diploma in Management Studies;
- (b) Business Studies;
- (c) 'A' levels in Law and Economics.

I retired from the RAF October 1978 after completing 22 years service as a physical training and parachute jumping instructor. During that time my duties ranged from pure instructional to influencing policy decisions on many aspects of training and allied subjects.

The reason I applied for the post of Development Officer was that it offered interest and challenge. Prior to accepting the post I had other offers of employment at higher salary rates and better security as regards permanent employments. Yes, I am a masochist at heart!

Having almost completed my induction training I look forward to serving BHGA to the best of my ability. In order to highlight the areas I shall be involved in I have tabulated brief extracts from my terms of reference as follows:

- (a) Representing Council, clubs and members in negotiations with the CAA, Government departments and the National Sports Council etc.
- (b) Advising on and formulating policy decisions.
- (c) Maintaining close links with member clubs.
- (d) Assisting with public relations.
- (e) Ensuring the efficient administrations of the BHGA.
- (f) Increasing the number of hang gliding sites by active promotion and negotiation at the national level.
- (g) Assuring the free use of air space by hang glider pilots.
- (h) Organising public events.
- (i) Organising major competitions.
- (j) Representing the BHGA to sponsors.
- (k) Developing an Airworthiness and Registration system.

My intention is to become gradually involved with all of my responsibilities, but concentrate firstly on the most important ones, as dictated by Council on behalf of BHGA. I have already made inroads into the introduction of airworthiness.

As I am new to hang gliding, I am not limited by preconceived ideas and ideals and have no particular axe to grind. Therefore I would personally welcome any correspondence that really offers constructive suggestions from any member or groups, to enhance the future of any particular aspect of hang gliding. Remember, you've had years to consider the problems. I've only had days.

Yours sincerely,

Barry Blore,  
BHGA Development Officer.

PS 'Help'



## TOWING ADVANTAGES

Dear Sir,  
Even as an inexperienced pilot I can see a number of advantages in tow launching.

1. Surely, once any bugs have been ironed out, it has got to be a much safer way of flying than hill launching: into wind take-offs, no trees or other obstacles to contend with, less chance of collision with other gliders, height above ground is much less in case of aborted take-offs, there is no hillside to be turned into and, of course, a large, flat, clear landing area can be arranged.

2. Less travelling for the geographically underprivileged and decent flights in calm conditions.

3. The possibility of very long cross-country flights by utilising thermals, ridge lift etc., coupled with the possibility of launching at a towing site when they really catch on.

I am sure other readers can add to this and perhaps come up with some possible disadvantages as well.

It seems that for the full potential of winch launching to be realised this year, it must be developed to a mature stage whilst thermalling conditions are still good.

Could not the BHGA become more directly involved and speed up development. Here are some suggestions:

(a) That club secretaries be asked to estimate the amount of interest within the membership.

(b) Possibly interested persons who could then pool all knowledge on towing could be co-opted, using BHGA funds to develop and test equipment in conjunction with suitable people, negotiate sites and generally encourage controlled development.

Winch launching may change the character of the sport by liberating us from increasingly congested soaring sites.

**Richard Godderick,  
Reddich, Wores.**

*Editor's note: A national register of those participating in any form of towing is being compiled by Roy Hill. See article on Towing in last issue.*

## SET A GOOD EXAMPLE

Dear Sir,  
Having just returned fresh from the best day at the 'Dyke' for many months, I feel I must put pen to paper about one particular incident that marred what was, otherwise, a perfect day's flying.

Whilst rigging my kite, I happened to notice another pilot a few yards away, helping someone prepare to take off, prone, on a kite that was obviously strange to the pilot about to fly it.

# AIRMAIL



I noticed that the pilot wasn't wearing a crash helmet, and assuming that in the heat of the moment he had forgotten to put it on, I called across and drew attention to the fact, upon which his helper, in a rather big-headed manner, more or less told me to mind my own business.

On the first attempt at taking off, the pilot ran about three steps and stuck the nose of the kite straight into the ground, like a raw beginner, and narrowly missed hitting his still unprotected head on top of the control frame as he almost went through it.

On the second attempt, he got airborne in a manner that can only be described as 'looking very hairy'. His helper then proceeded to make somewhat derogatory remarks to colleagues around him about "some twit over there complaining about not wearing crash helmets", to which I interjected that nobody should be allowed to fly without one.

"Do you realize that was one of the top Austrian pilots?" was the hasty retort, implying that 'top pilots' don't need helmets. I retired to rigging my kite in disgust.

Some minutes later, I noticed this person about to take off himself, when one of his colleagues said "Where's your helmet Lester". Looking somewhat embarrassed, the pilot made some remark about 'having forgotten it' and put it on before taking off.

It then dawned on me that this was the famous/notorious! Lester Cruse. Well, if that's his attitude to safety, I feel somewhat ashamed to be a hang glider pilot of four years. People such as he should be setting a better example to all those around them, otherwise we'll have every nonk trying to emulate their bad habits saying such things as 'top pilots don't

need to wear a helmet'.

So, come on Lester, let commonsense prevail, there's absolutely no excuse for anybody not wearing one including a "top Austrian pilot", whoever he may have been.

Having seen an extremely nasty accident involving a downwind stall about two years' ago, I know for a fact that the person involved wouldn't be alive today if it hadn't been for his headgear.

I could also quote several other less severe examples, but I think most pilots already know it makes sense to 'get yer 'at on' before flying.

As a postscript, well done to the Steyning Management Committee for getting the site re-opened, albeit at a rather high price. This site is of prime importance to beginners in the South and without it we might have people tempted to try less suitable sites with disastrous consequences. Let not some of the experts forget that they learned to fly there, even if they frown on the site now.

Even if you don't use it much, how about chipping in ten quid for a season ticket as this site owes many of us invaluable training experience and I hope it will continue to do so for future hang glider pilots.

**Harold Rice,  
Reigate, Surrey.**

*Editor's comment. The Southern Hang Gliding Club is dealing with complaints about Lester Cruse. Fortunately the number of top pilots who use their position as a justification for flouting rules and encouraging irresponsibility is very small. The only thing they appear to value is their League status — possibly removal of such could be considered in extreme cases?*

## CONGRATULATIONS AND CRITICISMS

Dear Sir,  
Congratulations to David Anscombe and to all the team involved in getting back Steyning Bowl. As a self-taught pilot I had my first hop there over two years ago. If that site had not been available, it is possible my enthusiasm to fly may not have been fired, but only continued to smoulder. David, an individual totally unrelated to the business side would seem to understand the importance of Steyning. Unlike the Southern Hang Gliding club, who made little effort, the group realised that without Steyning, a large number of novice pilots might have gone off Devil's Dyke or Beachy Head in a very brief blaze of glory!

On another point, it seems that a someone called Lester feels it is satisfactory for a visiting pilot to fly from the Dyke in a glider he had not flown before and not to wear a crash helmet. As the pilot was about to take off, another pilot shouted that he had forgotten his helmet. Lester replied that the flyer concerned was with the Austrian National Team and flew better than the observing pilot ever would!

When the visitor first attempted to take off, he put the nose in and when he eventually flew, the ensuing flight resembled a **first time prone flight** in turbulent conditions.

This is why we need the sites like Steyning and not the misplaced attitudes like Lester has, for we must also work to protect our freedom at sites like the Dyke as well as Steyning.

**David Temple-Murray  
Maidenhead, Berks.**

## CHECK YOUR GLIDER

Dear Sir,  
I recently discovered a fault on one of the components of my Hiway Cloudbase, which I feel should be drawn to the attention of other flyers.

The part in question is the triangular piece which clips into the nose, and which carries the front wires. The component is attached by inserting a spring clip through the channel at the nose, and through the hole in the component.

On my glider the hole on the triangular part had become enlarged by wear and there was danger of the hole breaking out completely.

If this part shows signs of stress and wear, and you have not got a replacement, do not fly. Remember, if in doubt, don't fly.

**P.A. Royle,  
Chorley, Lancs.**

## REPLY FROM LEN GABRIELS ON ACCIDENT REPORT

Dear Editor,

We were astounded to read the article in *Wings!* No.3 1979, entitled Accident Report, by Stephen A. Hunt, which said that our powered Safari was divergent and structurally unsound, allegations which are bound to harm our reputation, at least until the next issue of *Wings!* (when we expect to see a retraction) and probably for a longer period than that.

We are prepared to wait for the report of the Accident Investigation Branch of CAA rather than go into detailed counter-arguments here, except to deal with the above allegations.

Firstly the Safari (identical in every way to the glider which crashed) has been load tested in excess of BHGA requirements to 6.5 g positive, and 5 g negative, without structural failure or permanent deformation of any kind — and afterwards flown without any repairs or re-adjustment being necessary.

The report suggests that stronger leading edges may not have broken and that the outcome of the accident could have been different (it would almost certainly have been worse). To the best of my knowledge, no hang glider in the world has survived this kind of inversion and if we built to withstand excess loadings of this kind, the glider would probably be lethal to fly and difficult to carry. Let us not forget that the move to wing-wireless leading edges has obliged manufacturers to use larger diameter tubes (including the longer crossbooms which are used) and that whilst this gives a greater impression of strength, it does not alter one jot the fact that the Safari is a tested, strong airframe.

Regarding stability, we have no doubts about this at all. Our confidence comes from one-and-a-half years' use of the prototype before production began, plus one year's experience of producing the gliders since then — all flown in the roughest weather that any gliders ever fly in, and with recovery from absolutely vertical flips out of violent thermals to prove it. This subjective feedback is not all we have.

Recently we have drop-tested, starting from at least 10 degrees past vertical and have proof that the preformed battens (the locked-in camber which worries Steve Hunt so much) gave positive pitch recovery from negative angles, whereas plastic battens did not, all other things being identical (except that we held up the sail at the front by a wire to the

top rigging wire when using preformed battens and removed this wire when using plastic battens. This was to ensure that the plastic battens did not have locked in camber anywhere). Any failure of preformed battens to give a positive vertical dive recovery will probably be due to too much camber and/or too little reflex, possibly coupled with a too flexible batten material.

Preformed battens have two other very big advantages. They prevent the sail from inverting and this reduces dramatically the shock loading which would otherwise occur in re-inflation. By preventing the inversion in the first place they reduce the chance of the nose being sucked down at that time. Dive recovery is much more steady and controlled, with no sudden potentially dangerous conversion from dive to level flight.

I fly all our prototypes and any glider with new ideas before letting anyone else fly them, having first satisfied myself that the glider is structurally and aerodynamically sound. Are we likely to put out unsafe gliders? I believe our record of over six years of manufacturing without a fatality shows we would not.

We remain convinced that the main problem was the high power and high thrust line in an almost split second weightless situation. We all knew about this of course, but it isn't until you actually see it that you can grasp just how quickly it can all happen.

We are all learning and there will be accidents. We should all try to help prevent them from recurring, but I feel that the publishing of this biased, technically inaccurate report in advance of the CAA's and John Hunter's findings destroys the credibility of BHGA accident reporting. It will ensure that no manufacturer will ever again be willing to give any help at all to Steve Hunt in his capacity as British Powered Hang Gliding Club Technical Officer, and lead to a call for manufacturers and anyone with commercial interest to be kept out of any position inside the BHGA.

Why was it thought necessary to publish this at this time, after such a long delay, when it is bound to clash with the CAA report which is apparently finalised? The opinions in Steve Hunt's report were formed months ago, almost as soon as the accident happened. I heard them all at the time. Why not have waited just a bit longer for the CAA report? There was no urgency as the powered glider was a one-off experimental machine not on sale to other flyers.

Why does Steve Hunt seem so concerned with protecting the idea that keel mounted propellers are O.K., that it was only this particular glider which was at fault?

He should have been saying that this set up will always be tricky and catch the unwary out, especially during these early experimental days.

How could the publishers of *Wings!* print this without realising that it was defamatory and without giving us the opportunity of adding our own comments in the same issue, as usual?

This report was written by someone who had not seen the wreckage, which makes it unique in the annals of accident reporting. We refused permission for the wreckage to be shown to Steve Hunt, who is a competing manufacturer, and prefer to wait for an impartial report from the CAA.

Put bluntly, the whole matter now stinks and it should have been left to the CAA.

Other points we must mention are that the glider has a mouth throttle as well as a fixed throttle — the latter to be used only when it would be safe to do so — i.e. not in turbulence.

The British Powered Hang Gliding Club recommendations were only produced after the accident, not before. In any case they are mainly one man's unproven opinion about preformed battens (locked in camber). Such proof as we have, as mentioned earlier, is in fact contrary to his opinions.

Finally, the statement that, after the initial damage, the glider broke up completely when still some way from the ground, is not supported by any film evidence and as an eye witness, my recollection is that it stayed as it was all the way to the ground. It is hard to understand how Brian survived and it is unbelievable that he could have survived at all if the complete structure had collapsed when still some way from the ground.

Yours faithfully,

Len Gabriels  
Skyhook Sailwings Ltd.

### FOOTNOTE:

*The comment in the report from the Powered Hang Gliding Club was not necessarily the view of the BHGA or the Accident Investigation Officer.*

*The publication of the report was not thought to damage Len Gabriels' reputation in any way, but to be a matter of common interest.*

## MAM TOR FATALITY

Dear Sir,

Following the recent fatality of an experienced hang glider manufacturer, the inevitable wave of adverse publicity appeared in our national and local press. Reports of the accident varied from reasonably factual to sensationalisation. I am sure that most members are aware of the manner in which the press reacts to such events and the

damage it can cause our sport. For this reason the BHGA employs a Press Officer.

One of the functions of the Press Officer is to liaise with and supply the press with any details of any accidents. In this way a certain amount of control can be maintained over what the newspapers report and hopefully what they will print will be the official view of the BHGA.

If we have individuals shooting their mouths off with personal opinions, pre-judging without any official investigations, then not only do the press have a field day but also the BHGA enquiry procedure is made less effective.

May I therefore suggest that in the event of an accident, the press should always be referred to our Press Officer — Brian Milton — for an official statement? If anyone makes personal statements to the press inferring they are the official spokesman offering 'official opinions' then if they do not have this authority, they should be brought before the BHGA council for bringing the sport into disrepute.

Alan Nuttall  
Rossendale, Lancs.

## IRRESPONSIBILITY

Dear Editor,

Re 'Kili conflict', what on earth is David Kirke doing flying from Kilimanjaro after having only "12 flights experience" to tackle the cloud? To my mind, anyone allowing such a novice to undertake such a hazardous flight deserves a severe reprimand.

P. Robinson

## Human yo-yos nicked

**HORRIFIED** bystanders yesterday saw four students leap to what seemed like certain death from a 245ft suspension bridge.

But the four, equipped with parachutes, had everyone fooled as they finished up suspended... each of them at the end of 150ft of ELASTIC rope.

Mr Nick Barratt, who watched the April Fool's Day stunt at Clifton Suspension Bridge, Bristol, said: "It was unbelievable. They must have bounced down about 200ft and then up again 70ft—like yo-yos." The stunt was led by 35-year-old David Kirk, president of Oxford University's Dangerous Sports Society. He and his friends were in a prison cell last night — charged with behaviour likely to cause a breach of the peace.

(reprint from  
The Sun 2/4/79)

## FATAL ACCIDENTS AND PARACHUTES

Dear Sir,  
Over 40 fatalities in hang gliding during the past 12 months, and to my knowledge 29 of the flyers concerned were wearing a parachute. There may have been more so equipped, I write only of those I have managed to ascertain. NONE of these 29 parachutes open properly. Some of them perhaps were not pulled. Of those that were, roughly a third were pulled too late and had not enough time to deploy properly. The remaining two thirds (about 15 in all — over half of the total number) malfunctioned.

Faced with a life-or-death choice, I've no doubt that every flyer who *knew* he was going to have to deploy his chute would want one that he could depend on to do the job it was supposed to have been made for. To stop his fatal descent. Well they didn't know, and their chutes didn't stop them.

When I became convinced that a parachute was an essential part of hang gliding (and it took me four years to get round to that way of thinking) I looked at every model on the market advertised as "for the safety minded HG Pilot" — or — "made especially for the HG Pilot's particular needs" etc. I rejected the lot, and went instead

to the people who had life saving in mind first and foremost. Parachutists.

My prone pack is a 24ft canopy reserve chute as used by army parachutists in almost every country of the world. It weighs a little heavier, and packs a little large, than the "special HG jobs". If I ever have to pull the handle I *know* that the 36in. coiled spring drogue under the "pop-top" will blast out of the pack towing the main canopy in fractions of a second, well clear of the kite's rigging, and will afford me every chance of getting down safely to mother earth in one piece. It won't flutter and flap round my feet or harness, caught in an eddy of wind, or hang on the end of its strop like a bag of soft sand taking ages to unwrap itself while I'm doing a great rate of knots downwards.

My chute, made and packed by an expert cost me £95 which included the manufacture of the special pack, D-ring and snap tackle to main strop (7 metres of it) and stainless steel base plate with secondary safety anchor link through the sail Kingpost hole to the hang point in case of J-bolt failure. All parts will stand up to a terminal shock of over 3,000 lbs absolute minimum. If my supplier (the army) can do all that for me, and show a profit, with *one* (per 5,000) failure in 7 years, why the

hell did 29 poor sods desperately claw their "special" packs out so vainly at twice the price and a distinct lack of success in function?

Bill Cowell  
BFPO 40

John Purcey flying his Phoenix 8 on an 8-mile cross country flight in February. A professional diver, John is a member of the Devon and Somerset Condors club. His flight took him from Bratton Camp to Heytesbury, using thermals, but without instruments. John has been flying for a year.



## ARBEE A.S.I. AND VARIO

The new ARBEE A.S.I. — £58.50

Very fast response.

Range — 5 to 55 mph.

Setable audio stall warning indicator, 5 to 25 mph.

Low battery indicator.

The well proven ARBEE AUDIO VARIO.

Audio on up and down.

Different tone bleep for up and down.

Low battery indicator. — £47.50

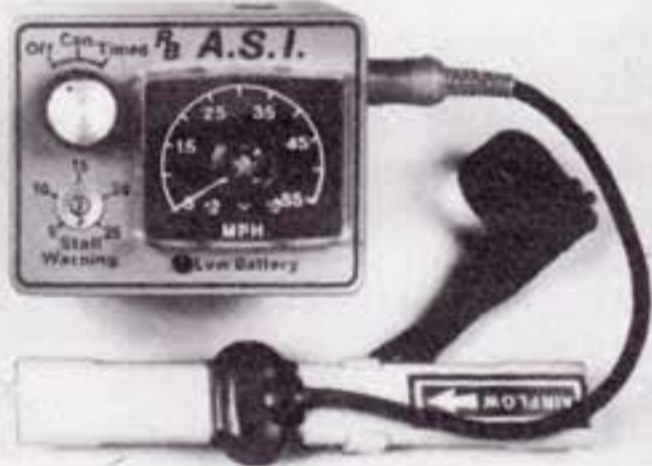
This visual unit plugs into the ARBEE AUDIO VARIO turning it into an audio/visual unit. — £15.00

Size of all units approx. 4.5" x 3.5" x 2.5".

All prices include P&P. State 1" or 1 1/8" upright.

Send cheque/PO to Arbee Developments,

18 Stephens Crescent, Horndon-on-the-Hill, Stanford-le-Hope, Essex.



THE FOLLOWING ACCOUNTS WERE ACCEPTED AT THE  
ANNUAL GENERAL MEETING HELD ON 31 MARCH/1 APRIL 1979

BRITISH HANG GLIDING ASSOCIATION

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED  
7 DECEMBER, 1978

	1978	1977		
	£	£		
<b>GENERAL INCOME</b>				
Members' subscriptions	28,070	24,275		
Members' entry fees	1,589	1,804		
Sales of badges, log books and books	3,045	4,272		
Pilots' certificates	1,789	970		
Donations and sundry income	422	176		
Schools' registration fees	590	565		
Interest receivable	619	443		
Commission receivable	371	531		
	<u>36,495</u>	<u>33,036</u>		
<b>GENERAL EXPENDITURE</b>				
Administration expenses	18,847	11,558		
Less: Sports Council grant	5,000	500		
	<u>13,847</u>	<u>11,058</u>		
Wings - cost	19,509			
Less: Income from advertising	(7,010)			
Income from sales	(1,448)			
	<u>11,051</u>	<u>7,376</u>		
Members' expenses	3,829	2,653		
Advertising	117	243		
Subscriptions	1,060	263		
V.A.T.	(349)	617		
Sundry expenses	1,396	1,089		
Badges, books and log books	1,512	1,618		
	<u>32,463</u>	<u>24,917</u>		
<b>GENERAL INCOME LESS EXPENDITURE</b>	<b>4,032</b>	<b>8,119</b>		
<b>SPECIFIC INCOME</b>				
Competitions account:				
Income from events and grants	17,188			
Less: Expenditure	15,955			
	<u>1,233</u>			
Surplus on sales - parachutes and wheels	24	1,257	(1,295)	
		<u>5,289</u>	<u>6,824</u>	
<b>SPECIFIC EXPENDITURE</b>				
Training Officer - fees and expenses	6,157		4,044	
Less: Sports Council grant	4,000	2,157	3,000	
Mere 1978 - net cost	509		—	
*League - net cost	678	3,344	(781)	
		<u>1,945</u>	<u>6,561</u>	
<b>NET SURPLUS BEFORE TAXATION</b>		<b>1,945</b>	<b>6,561</b>	
<b>TAXATION</b>		<b>102</b>	<b>254</b>	
<b>NET SURPLUS FOR THE YEAR</b>		<b>£1,843</b>	<b>£6,307</b>	

\*League balance 7/12/77 - £938 CR. i.e. balance £260 CR. 7/12/78

BALANCE SHEET AT 7 DECEMBER, 1978

	1978	1977		
	£	£		
<b>FIXED ASSETS</b>				
Office equipment at cost	2,584			
Less: Depreciation	683			
	<u>1,901</u>	<u>110</u>		

CURRENT ASSETS

Sundry debtors	2,380	2,000
Stocks	2,325	421
Bank - current account	3,159	214
Bank - deposit accounts	5,634	1,561
Building society deposits	5,404	8,016
Petty cash	35	14
	<u>18,937</u>	<u>12,226</u>

CURRENT LIABILITIES

Sundry creditors	6,412	415
Corporation tax	122	254
	<u>6,534</u>	<u>669</u>

NET CURRENT ASSETS

	<u>12,403</u>	<u>11,557</u>
	<u>£14,304</u>	<u>£11,667</u>

FINANCED BY:

ACCUMULATED FUND

As at 8 December 1977	11,667	5,360
Add: Surplus for the year	1,843	6,307
	<u>13,510</u>	<u>11,667</u>
Add: Sports Council grant - fitting out Taunton office	794	—
	<u>£14,304</u>	<u>£11,667</u>

WHINNEY MURRAY & CO.  
CHARTERED ACCOUNTANTS  
SOUTHAMPTON.

1978 was a year of great financial change for the BHGA. We moved into our office accommodation at Taunton, taking on the expenses that go with it, and engaged our flyers in our most ambitious competition programme yet. The net result is another £1,843.00 in the Bank and some silverware for the sideboard — not a bad year but there are some expensive times ahead. We are committed to spending £1,000.00 on Club Coach training, an extra £3,000.00 or so on our flying insurance and we now have a Development Officer to keep going.

Thankfully, the Sports Council are very generous with their grant aid — last year they gave us £14,478.00 — but nevertheless, an extra £1.00 is necessary on our annual subscription. I hope this will not adversely affect our recruitment of new members — last year saw a drop of new recruits and these are the guys who buy all the badges and books. So, keep a look out for new members and you remember to renew at the right time!

DEREK EVANS

Treasurer

**INTERNATIONAL DRAW**

Final reminder for the draw which takes place on 2nd June. There are 10 fabulous prizes to be won — have you filled in your tickets and sent your money to Audrey Evans? The proceeds go towards financing our International competitions this year and in keeping British Hang Gliding on top of the world. Send a pound or two and give yourself a chance of winning a hang glider or a trip to America.



# FIRST POWERED HANG GLIDING FLIGHT

By Christopher Anthony

My first experience in flying a powered hang glider started in late June last year with an Olympus 160/Soarmaster combination. I was standing on a north-easterly slope on a warm sunny day with the wind blowing up the slope at 18mph. It was going to be a day I would never forget.

The clouds were light and wispy and as I watched them go by I wondered if I might be able to reach them. They must have been about 2000ft. up. After my trembling fingers had helped to put the engine on we did the pre-flight checks and the checks to the engine.

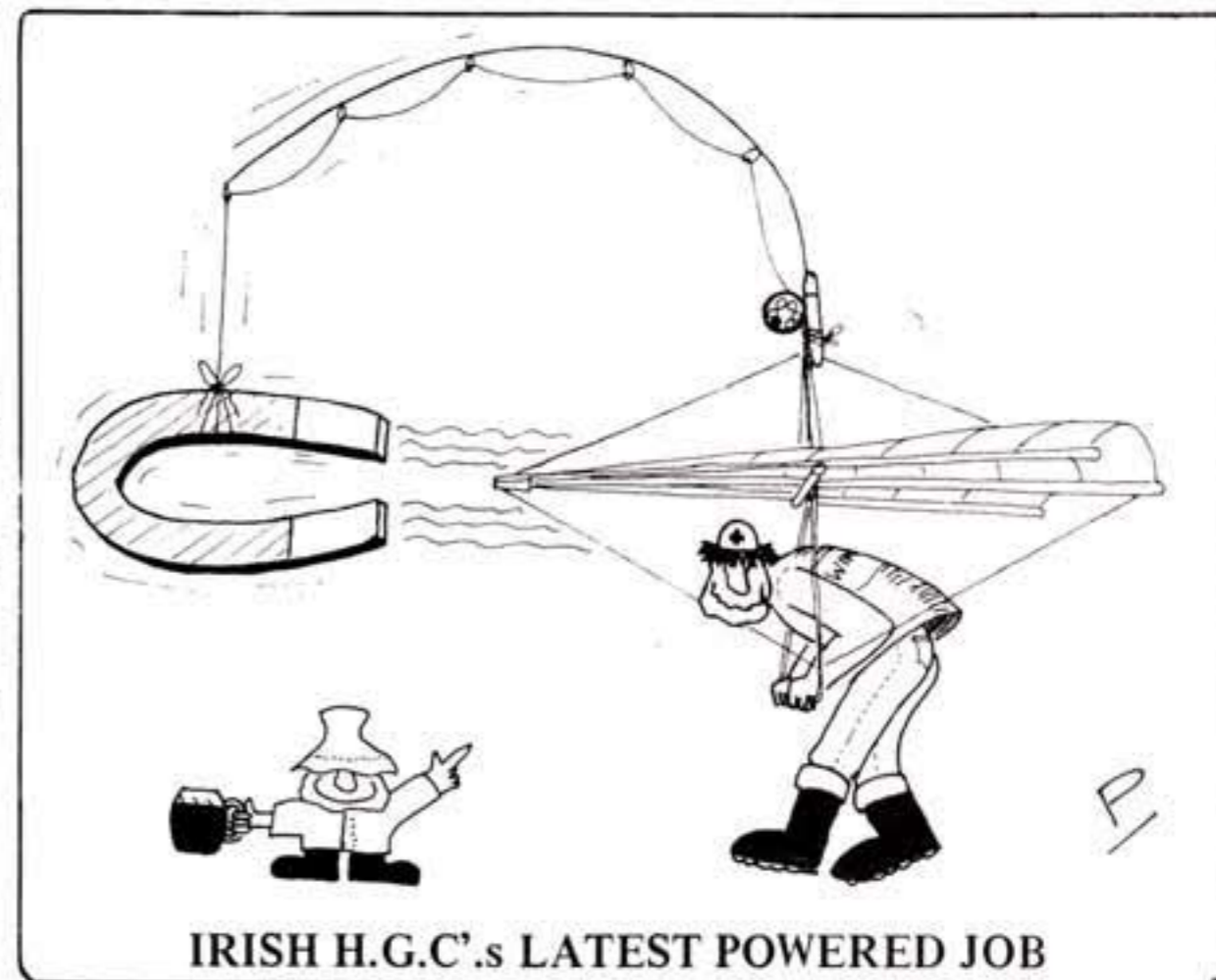
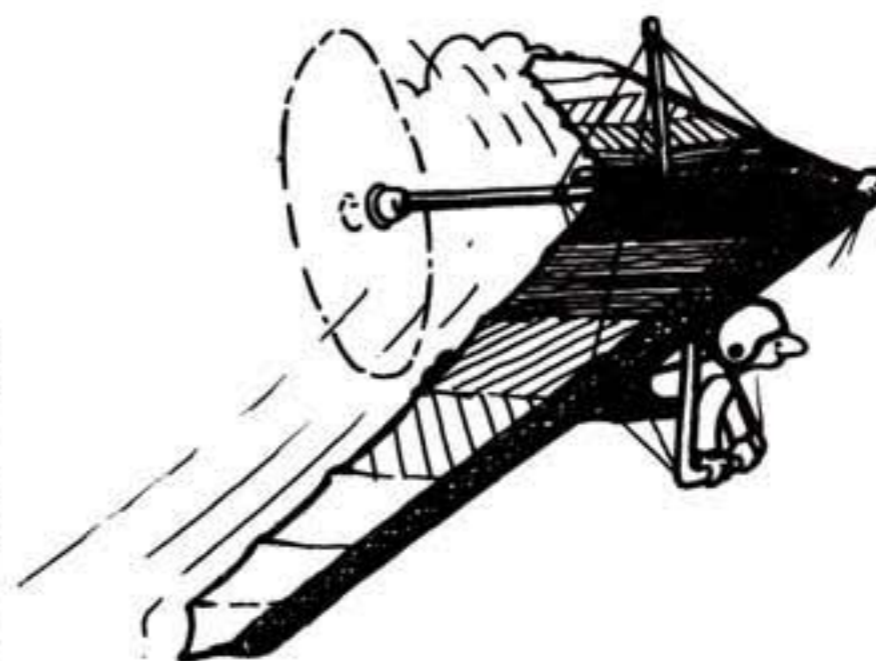
My first flight was to be made with the engine dead (just to get the feel of it). So I soared for a while and made a top landing. No problem — the extra weight didn't make much difference.

Then, with the engine ticking over, I flew away from the hill after making a normal take-off. I slowly closed my mouth on the clothes-peg throttle and with my arms out-stretched was climbing at 250ft. per minute.

People have asked me about the vibration problem when the engine is at full revs but the only vibration problem I had was my legs shaking in the stirrup! After I had put my fears away, I headed towards those wispy clouds. I flew in and out of them until I was tired and made my way back to the slope and landed.

I now have about 30 hours flying time on a powered hang glider and there are several points that should be remembered when going for your first powered flight.

1. Don't try to teach yourself. Go to someone who knows something about it.
2. Take things easy on your first flight. Don't try to do too much.
3. At any time during the flight, if things go wrong, cut the engine.
4. When you come in to land, switch off your engine early.
5. Do not rely on your engine.



IRISH H.G.C.'s LATEST POWERED JOB

## Sky a Safari

*Fly next year's machine this year*

**Safari** Winner of the 5th league, Graham Hobson — 17 miles. Over 18 months of intensive flying of the prototype "Safari" proved to us that we had a winner to follow "Sunspot" and it is now in production. For light winds the medium "Safari" has the min. sink performance to equal the large "Sunspot" and that is saying something. It also has the penetration for strong winds and positive, predictable handling

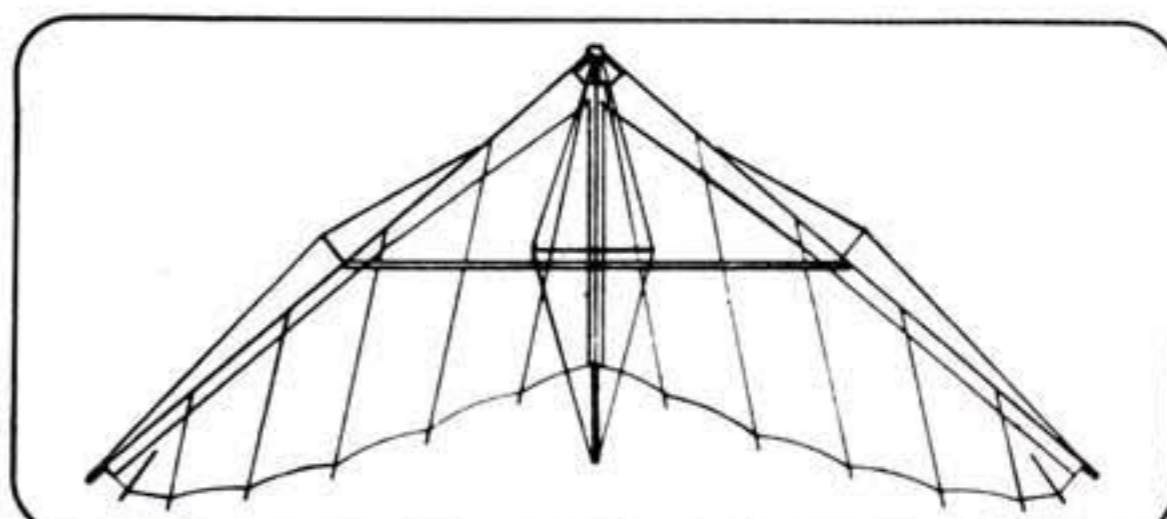
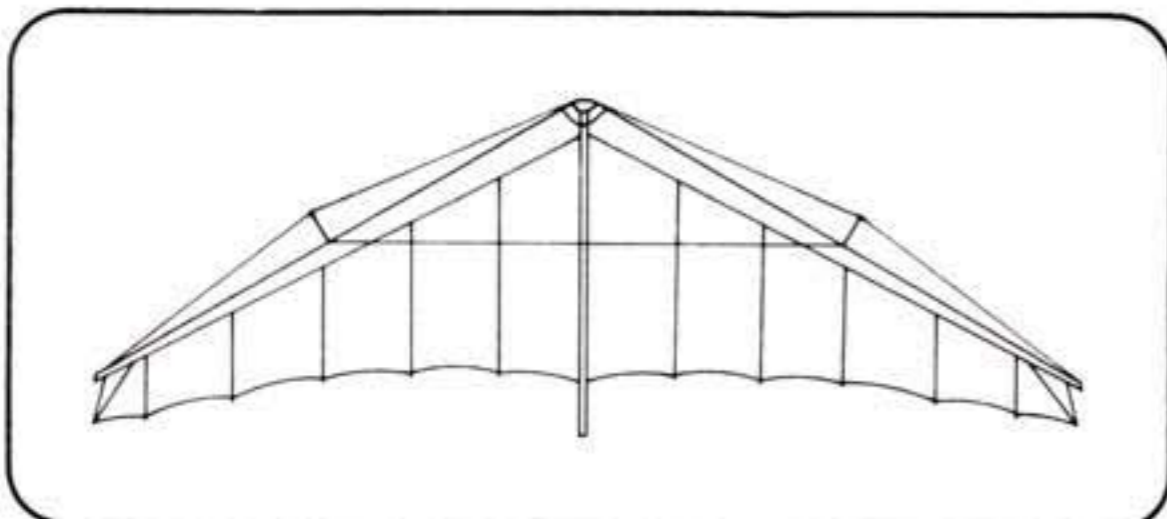
with immediate response which is so necessary for all kinds of flying.

Glide angle at speed is good. The reflexed preformed battens in every seam make the whole wing pitch positive without the need for locked up tips etc. Vertical dive recovery is positive.

Safari is a real cross-country machine which easily makes use of thermals and handles the strong turbulence which often goes with them.

For the experienced pilot who demands the best performance but still wants outstandingly good handling.

**Sunspot.** Still one of the best all rounders next to "Safari" for fliers of E.P.C. standard. 104° nose angle. A/R 5. Available in two sizes. Prone harnesses and parachutes also available.



**Skyhook Sailwings Ltd.**

Vale Mill, Chamber Road, Hollinwood, Oldham, Lancs.  
Tel: 061-624 8351/3427 Telex: 667849 HOLMES G.

# THE DAY IS 24 HOURS LONG

by J.A. Hudson

**Dunstan Hadley's article on Night Flying last year aroused John Hudson's interest. Despite the indignant reply by Gordon Murray and suggestions that the activity was irresponsible, John set out with Graham Hobson and Trevor Birkbeck on a winter evening to see for himself.**

The wind was 18 to 20 mph, square on and dead smooth. The snow reflected back the moonlight with such a brilliance that a torch was a positive disadvantage. It was easy to see the pin holes in my ¼ in. dia. wing bolts. I just could not believe the visibility.

Graham Hobson lobbed off first and soared around for a while before landing back on top with a grin from ear to ear. Trevor followed and, since it was so clear, I too launched from the pristine snow surface.

There is an expression "It blew my mind" — well, it did. I was completely spaced out with the experience.

Winter Hill is a perfectly shaped ridge. An IBA aerial mast rises 1,050ft. into the sky and dwarfs numerous other pylon masts about 150ft. high. The smaller masts are festooned with strangely shaped transmitters and reflectors and although the towers were unlit, the end one was bathed in light from a number of floodlights around the perimeter fence. This gave the lattice structure an ethereal appearance, as though it was some static insect, frozen in motion by the brilliant white light.

Behind me, the monumental main mast stood like a finger pointing at the sky. At 50ft. intervals, clusters of red light warned aircraft of its presence, and these red lights were so vivid that 15ft. at either side the tubular tower glowed with a pink translucent colour.

The horizon was yellow with the lights of Manchester, Bolton, Blackburn and hundreds of other twinkling lights. Up there on the moors, aside from the backdrop behind me, not a light showed. It was amazing and unlike anything I'd experienced before. The sky was black and perforated with millions of stars and the moon itself, too bright to stare at.

## Visibility

At first we were worried that it would be hard to see another pilot, despite the good visibility. However, there was no danger, since it was easy to see where the other fellow was by his jet black moon shadow on the white ground below us.

Looking down, it was crystal clear and top landing was as easy as in the day time. Looking up, it was hard to keep a flyer in view until he either crossed the moon or you noticed a delta shape where the stars should be. However, the air was very smooth and we all felt safe in our flying. Naturally, this kind of flying just had to be repeated, and during the following months many of the experienced members of the Pennine Club "took the night air".

Since the flying this winter has been so abysmal, I took special interest in the fact that the moon was due to be full on the 13th January. The snow that fell had the opposite effect on me that it had on most people and I looked forward to launching in 1978 and landing in 1979 by going out on New Year's Eve.

This was not to be and although the snow and moon were good from early January until near the end of the month, we only managed to get out on two promising nights.

Keith Cockcroft and Geoff Ball flew one night when the wind was gusting to 26 mph, but I thought over my own limits and fought back a lump in my throat as they flew about. Bob Calvert launched, but a high 28-30 mph forced him down and we left the site around 2.00 a.m., slightly disappointed.

A week later, after a dead calm Saturday on the hill, I tempted providence and a divorce by donning my cold weather gear and going flying in the middle of Starsky and Hutch.

It was a beautiful evening, but the forecasted 20 mph did not materialise and a fretful 8-10 mph was all nature could muster on Nont Sarahs, one of our highest sites above sea level. In desperation, at about 12.30 a.m., Phillip Robinson launched for a quick scratch around, ending in a landing at the bottom. When he was back up, I shot off to an even quicker landing — only to hear his gleeful cries as he skied out in the wind. It had risen as soon as my boots hit the snow!

Never has a kite climbed so quickly! — helped on its way, by Hughie McGordon and Malcolm Dean, two Pennine flyers who came down to help me back up. As nature would have it, the wind eased shortly after we were back up and I had to be content with a rapid soar around and a tight top landing.

## Warnings

This article may have an adverse effect and cause all sorts of people to take to the darkness, but this would be a serious error. There are many, many things to think about before considering this form of aviation.

Firstly, night flying without the correct glider lighting is illegal (steady red light of at least 5 candels showing in all directions). Not only is it illegal, but also dangerous to other air users. Doing something illegal may also be classed as irresponsible.

Unless you are an experienced flyer it would be very foolish to go out at night. This is also true if you do not know the site thoroughly, or if the site is used by other aircraft or is near an airfield. Aeroplanes practice at night as well you know, and remember the old maxim — *You are never, ever alone in the sky!*

Secondly, I would consider it unwise to fly more than 400ft. above the ridge unless I was complying fully with regulations. I would also want to be with a maximum of 3 other pilots, all very experienced and would agree careful limits on who flies and when.

Although there have been a few Pennine members who have flown in snowless conditions, I would have to think very carefully before considering this safe. As Gordon implies, visibility is everything and just now I demand at least a half moon and snow or strong ground frost.

Clear nights are always cold, and cold is energy sapping. You feel drained the next morning, since in effect you've done two days work in one, so a careful watch on energy is essential. If you feel tired or cold, go home to bed.

Speaking for myself, the build up and excitement cause my adrenalin to flow freely, and this a thing to be careful of. *Overconfidence can Kill!!*

Always remember that an incident at night would be a disaster for both the sport and for yourself. The newspapers would have a field day with you and make you out to be a complete idiot. They may well be right!

However, as Dunstan Hadley pointed out, he's had enquiries from potential night flyers. It goes on, and we should see things as they are and not as we would like them to be. Everyone should be aware of both the pleasures and the dangers of this aspect of flying and should then make up their own minds.

I do not deny that night flying is potentially more dangerous than day time flying. It most certainly is. Perhaps the risks inherent in our sport anyway, are enough. It must be remembered that nights fit for flying are very few and far between and have to be selected with care. If you and others consider yourself to be a safe and responsible pilot, if you take double the care you normally take, if you obey the law, night flying under a full moon and snow can be absolute magic.

### Postscript

Three days after writing this article, I found myself, midweek, on the top of Winter Hill.

Phillip Robinson, Hughie McGoran and Paul Maratos were also there and the four of us stood about discussing the crossed wind, deep snow and complete lack of moonlight. However, after discussing Dunstan Hadley's point about 30 minutes needed for night vision, we rigged a Sky-line and a Super Scorpion. Before long, we decided we could see well enough and lobbed off.

The night was slightly cloudy and although we could see enough for safe flying, the sparkle caused by moonlight was not there. We all had about 10 minutes or so and landed back on top.

The city, village and town lights were just as beautiful, but I think we all decided that although a moonless night with snow was light enough to fly, the conditions were nowhere near as majestic.

I'm even more sure now that a moonlit night with snow on a clear ridge are the optimum conditions if you fancy this kind of flying.

## THIS MAY BE YOUR LIFE SAVER

## RESERVE PARACHUTES

The greatest stock in the UK

Windhaven	24ft	£195.00 inc VAT
Windhaven	26ft	£205.00 inc VAT
Bennett	24ft	£200.00 inc VAT
Bennett	26ft	£210.00 inc VAT
Advanced Air	24ft	£175.00 inc VAT
Advanced Air	26ft	£185.00 inc VAT

Huge discounts for group purchases  
eg: 24ft Windhaven — 5 or more £172  
24ft Advanced Air —  
5 or more £157 — 50



# mainair sports

Mainair Sports Shawclough Road Rochdale Lancashire OL12 6LN  
Telephone Rochdale (0706) 55131/2/3 Telex 635091 MAIN

**CGS**  **Chiltern  
Glider  
Supplies**

### MAIN AGENTS FOR;

#### ELECTRA FLYER (Scot-Kites)

Olympus 140, 160 and 180 £614  
Cirrus V in four sizes £560

NEW Intermediate Nimbus now available POA

#### CHARGUS GLIDING CO.

Vortex 120 £460  
Cyclone (Pilots only) £590

#### ECLIPSE GLIDERS LTD.

Eagle II in two sizes £405  
Super Eagle - single deflexors £433

### ACCESSORIES

CGS Instrument Pods; two types available. Fitted with Air Speed Indicator, Audio Visual Vario, Altimeter, Compass and Stop Watch... P.O.A.

Instruments by; ArBee, Dimplex, Bolam, Theotech, Sunto & Ball.

Helmets; Britax Roma and the Everoak.

Harnesses; Proneweb and Proneweb 'S'. Arriving soon; the strongest Prone Stirrup Harness available.

Parachutes. Back up hang point straps.

Kite Boots made in half sizes.

New Parra Boot, very light and comfortable.

Spares always in stock.

### SECOND HAND KITES

Stock always changing. Phone for details or call...

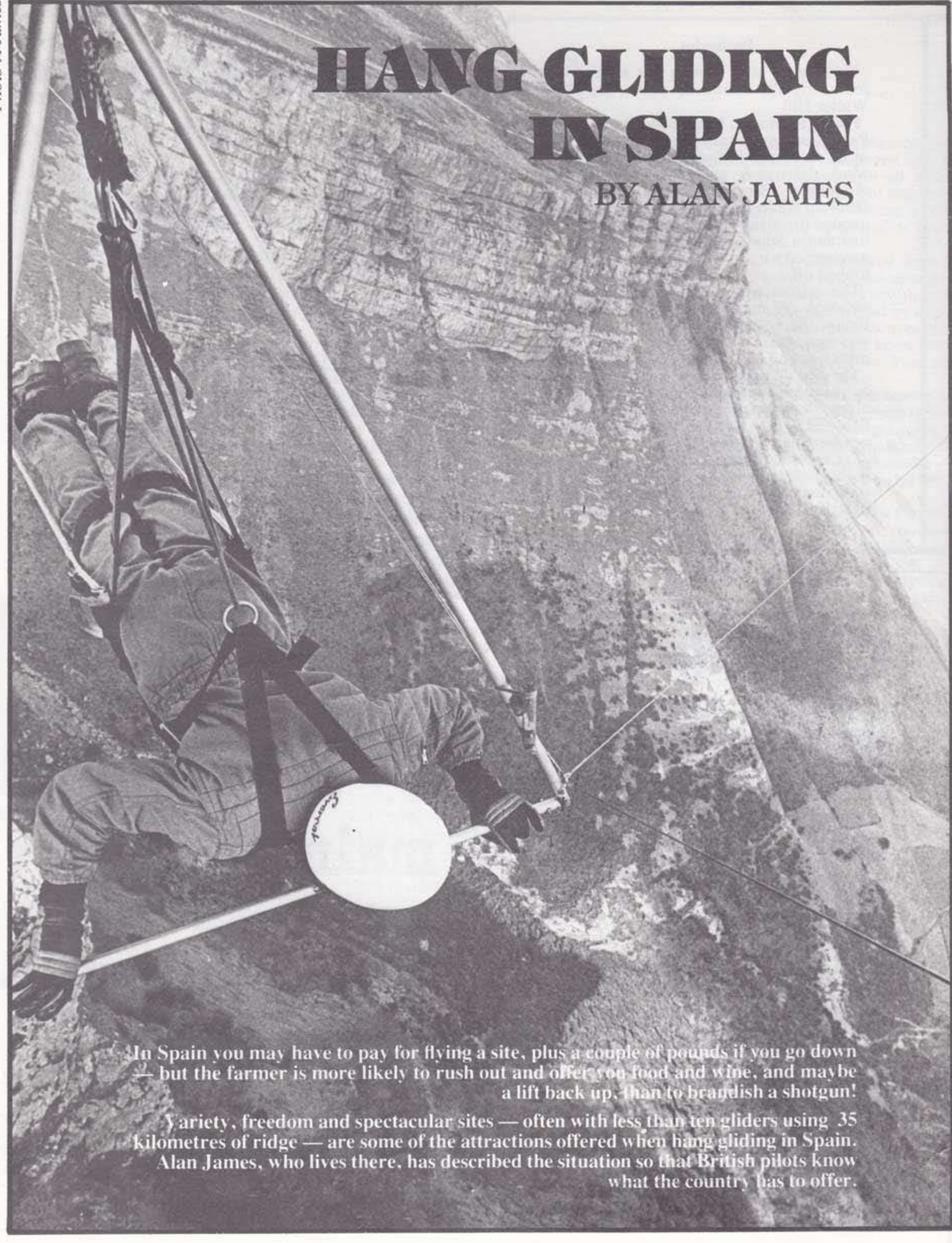
Dunstable (0582) 601768 46 Princes St, Dunstable, Beds.

To Mainair Sports, Shawclough Road, Rochdale, Lancashire  
Send large SAE for catalogue and parachute list

Name \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone No. \_\_\_\_\_

# HANG GLIDING IN SPAIN

BY ALAN JAMES



In Spain you may have to pay for flying a site, plus a couple of pounds if you go down — but the farmer is more likely to rush out and offer you food and wine, and maybe a lift back up, than to brandish a shotgun!

Variety, freedom and spectacular sites — often with less than ten gliders using 35 kilometres of ridge — are some of the attractions offered when hang gliding in Spain. Alan James, who lives there, has described the situation so that British pilots know what the country has to offer.

The common characteristic of all the flying sites in Spain is they are pretty big. Some British pilots were here in '77 and '78 and flew Orduna in the North-east; if you really want to know how spectacular it is, ask one of them! We fly there every chance we get, and there are very rarely more than four gliders in the air. That means we have 40km of ridge to ourselves! The town in the valley is surrounded on three sides by a rise of 2,000-3,000ft., several box canyons, and 1,000ft. vertical faces. It takes NW to ENE winds and 8mph is soarable. Take-off can be a bit hairy, but once away the view and the lift are incredible. The cross-country potential is good; a look at a good relief map will show you how many other mountains and ridges there are around Orduna.

There are other good sites in the North; Sopeland near Bilbao is a good 300ft. cliff site, and there are other mountain sites around — but Orduna is certainly the best. On the road from Bilbao to Madrid is Vitoria where Moyes gliders are manufactured by John Ogden from Australia, and where Phil Matthewson teaches at the Juan Salvador Gaviota School.

Further south is La Pinia, primarily a skiing site. It's a 3,000ft. ridge with excellent potential. Near Guadalajara you'll find la Muela, a 1,100ft. flat-top mountain, easily top-landable, with 360° of wind, road to the top — what more do you want? Many of the Spanish Compet-

itions are held there, and in fact the first was in February when 45 pilots from all over Spain arrived to compete. Moyes gliders predominated the field, although Hiway, Albatross and Lancer had their fair share. Even though the winds were very light, the thermal activity gave some pilots a ten-minute glide down (or rather down, up, down!).

There are very few good sites in south/central Spain and you need to go to Grazalema, near Sevilla in the south-west for the next big one — and it is big. This place takes a lot of beating anywhere in Europe. It's hard to show in photographs the size and scale of this 3,500ft. mountain range. It has many peaks and faces, takes north or south winds and really cooks for nine months of the year. When the winds are light northerlies, it's possible to take off on the south facing side into the lee-side thermal and go off cross-country anywhere you like for maybe 50sq.km. There's a short climb to the top for take-off but, when there, it's like Mill Hill, except it drops off 3,200ft. to the valley floor. In December I watched Phil Matthewson take off into a relatively unfavourable easterly, in inverted weather, soar for thirty minutes, go away from take-off for 2km. with no height loss, thermal over a town to 4,800ft. above and do 12km. cross-country before landing. And that was a bad day!

Further east towards Barcelona there

are many good sites. Montblanc and Valls near exit 9 on the Bilbao/Barcelona autopista take a lot of beating. It's a 1,700ft. ridge running for five or six miles and takes north or south winds. There are roads to the easy take-off sites. The second competition for the Spanish title was held here in late March. The third and last day of competition was rained off in the morning, but the first two days saw spectacular blue skies and cirrus, specked with up to 15 gliders drifting around slowly in the huge areas of lift generated by the ridge and big thermals cycling through. One pilot was disqualified from the competition on the second morning, but spent an amazing six-and-a-half hours high above the ridge watching the competition in progress. He was beaming when he landed!

Later in the year another of the competitions is to be held at Blanes near Barcelona. The take-off is from a historic castle where two 5 x 8 metre ramps are built on the battlements. The landing area is the beach, and the rest I'll leave to your imagination!

Near all the sites you'll find small towns with hotels. Expect to pay about £3-£4 for a bed and £2-£3 a day on food and drink. Petrol is about £1 a gallon. Two weeks flying in Spain should not cost very much, and you should go home with stories for your local of some of the most spectacular flying you've ever had.



*Pilot launches off vertical 2000ft. take off at Orduna in Moyes Maxi.  
Photo A James*



# Europes Leading Training Centre



**WELSH HANG-GLIDING CENTRE**

**Flight Director Gerry Breen**

For full details of our training courses, send for free colour brochure.

**South Wales Branch**  
New Road Crickhowell  
Powys South Wales

**North Wales Branch**  
17 Well Street, Ruthin  
Clwyd North Wales

Photography Richard Kenward

Telephone 0873 810019

Telephone 082 42 4568

# FLIGHT FROM KILIMANJARO

BY ASHLEY DOUBTFIRE

Last Month Ashley Doubtfire described events leading to his flight from Kilimanjaro. Here he continues the story, relating the difficult ascent to the summit, followed by the actual flight.

## THE WALK UP

The first stretch to Hhorombo hut was a pleasant, but fairly demanding, height — through the jungle first, then out into the open at 8,500 ft. ASL. Chris Baker and Dave Kirke insisted on making it fully geared up in tails, collar tie and, of course, climbing boots. Chris, Jonathan Hardy and Phil Oppenheimer, who was only a temporary member, were talking seriously about being carried up the mountain in sedan chairs. They had employed a local carpenter to build these. John Fack, the film crew and myself, were of the opinion that this was taking empiricism too far but I couldn't help but be amused by "Monty Python in reality".

It all ended up in a joke, when one of the chairs got abandoned further up the mountain because of its sheer weight — and on arrival at Hhorombo, Phil and Jonathan who jumped in complete with their bearing porters were promptly overturned and dumped into the thorny undergrowth. This was done especially for the film — and the skill of the cameraman who panned 180 degrees, captured a fine shot of 20 or so porters and climbers bursting into laughter from the doors of the hut.

The climb had been hard. We had made over 12,000 ft. Peter, the sound recordist, and Tony, the cameraman, were pretty shattered with having to rush ahead of the party for takes during the walk. I helped them with their gear and sorted out the film I had taken during the day. We had to use a lamp to reload all the cameras, but soon stowed the gear and crawled into our sleeping bags.

Sleeping wasn't too easy. Breathing has to be faster owing to the thinner air — and it took some time to settle down. It was one of those nights when you keep on chatting and can't remember in the morning when you dropped off.

The next day was more of a struggle. We passed Mawenzi peak with its formidable splinter-crags and eventually came to a place where the whole saddle was laid



out beneath us. The party had spread well out now. There were about 55 porters, some of them ahead with the gliders. They were due to carry them straight on up — past Kibo hut — to Gillman's point that night.

I had a long, peaceful walk over this desolate few miles of land. It was truly a barren wilderness — with nothing growing and — nothing living, not even snakes. Kibo, of course, was in front of us — but not the snow-capped mammoth one is used to seeing in tourist photographs — just three thousand feet of pretty sheer rock face and scree.

When we eventually made the hut — and it certainly was a task of stamina — Alan Weston pointed out the zig-zag path which leads to the top. The main snow started about two thirds of the way up, but there were already patches of it around. Yes, here we were damn near the equator and it was beginning to get pretty chilly.

## KIBO HUT

I will always remember the scene in the hut that night. Tomorrow was the big day. We would fly — we would actually climb that peak and launch off into space, perhaps getting a great flight down to warmth again.

It was a very special feeling to be walking for days, sleeping and generally living on a huge, huge, take-off platform. Hang

gliding of this type has a great deal to offer in this respect. It clarifies a lot because it is, in many ways, the supreme clownish act. Why hike up a volcano to get just an hour's flight, when all you have to do is to go from Marlborough to Milk Hill — 20 minutes down the road and get two hours in. But here we were, in a cold hut, having to stuff mattresses against holes in the walls to stop the icy draughts. Most of the crew were feeling just about dead from exhaustion or headache or very queasy stomach . . . There must be something very special about mountains to put up with this sort of thing!

## 10PM TO 1AM THAT NIGHT

Every mountain seems to have its own something. Chris Bonnington described so well the menace of K2, which spells out disaster with such vengeance. A mountain makes one have feelings about it — feelings that can influence whether you are going to get on with it.

I was beginning to have a special relationship with Kilimanjaro! "Big brother" is a poor way to put it — but it gets close. The mountain was developing a personality. I could feel it strongly. It seemed to say "You are on me now, I have known you to be coming. You are frightened of me and rightly so. You know that when you take me on you are putting up your very life for the pleasure and glory of flying from me. You hope that I respect you and that I'll take care of you. These rocks have stood here for thousands of years overlooking the planet's most primitive continent. Your blood would go unnoticed. All you can do is to use all your knowledge and leave fortune to itself".

The others were resting, some asleep, when I walked over to the night watchman's shed 100 yards away from the tourists' cabin. A lamp shone from a doorway and I stood on the threshold, adjusting my eyes to the light. Dark faces — lots of them — looked out at me and there was a smell of stew. "Jambo", a statement came. I returned "Jambo!" "Habari". "Habari". "Msuri". "Msuri". The usual greetings led to discussing our health and trying to get Mr. Lobongo on the radio at the bottom. No good.

They offered me a seat and I reclined alongside the others. "Tek this" said one "good for you". Smiles all round. We ate

and talked for three hours about flying, god, religion, women, Amin, colour and politics.

At least my mountain was being hospitable!

### THE LAST LEG

The bags had been packed, but by one o'clock, when I left the night watchman's hut to see what was going on with the others, it seemed there was very little life coming from the porters. We needed to be up that mountain by at last 7am. It was a six hour walk — and there had to be time to rig and fly before 9am — when the cloud would close in.

By 2am, I knew there was nothing to be gained by waiting. Every need was to get something moving up the mountain. My mind was already on the subject of cloud. That was my only worry. The camera crew came right on with me and stuck hard by me all the way up. Their effort to beat the cloud was amazing, but understandable as one of them was a fairly experienced pilot himself.

When I passed John Fack earlier, he was complaining of feeling awful. Chris Baker too. Dave Kirke seemed rather absent, but generally in a better state than the others.

Jonathan Hardy passed me, after having walked for an hour together. As light dawned, I looked up and could make out the top. Porters were strung out up the path of scree — the furthest only small dots, moving up slowly. It was cold, but my clothing was amply sufficient — thermal underwear, shirt, two ski suits, one mountaineering jacket, balaclava, three pairs of socks and mitts!

It was an amazing sight, both upwards and down towards Mawenzi, the saddle, the foothills and the horizon. But the cloud was already beginning to form over the land. How would it be when we reached the top. Possible! — If so, for how long?

A cave marked the rest point between the long trials of five steps and rest — 12 steps and rest. I found that controlling my breathing was essential. The ski-stick, which we all carried to aid our walking, acted as a support. When one had strained oneself to the utmost, to make a certain number of paces, one could then give out with ones chin on the stick and eyes closed. Breathing and heartbeat would both be going on wildly.

The best rewards at the top were the ice-fields to one side of the take-off. These were weird columns which lined the escarpments of the crater rim and the overall view of Africa was totally mind-blowing.

### GILLMAN'S POINT

The gliders, a few rucksacks, and four or five porters were all that I found at the top. No sign of Jonathan. Within three-quarters of an hour, Tony and Peter came puffing slowly into view. I had been resting, sorting out my equipment and looking

for oxygen masks. It was difficult to find anything in the bags because there was so much gear piled into each one and delving into them was almost impossible because of the lack of energy.

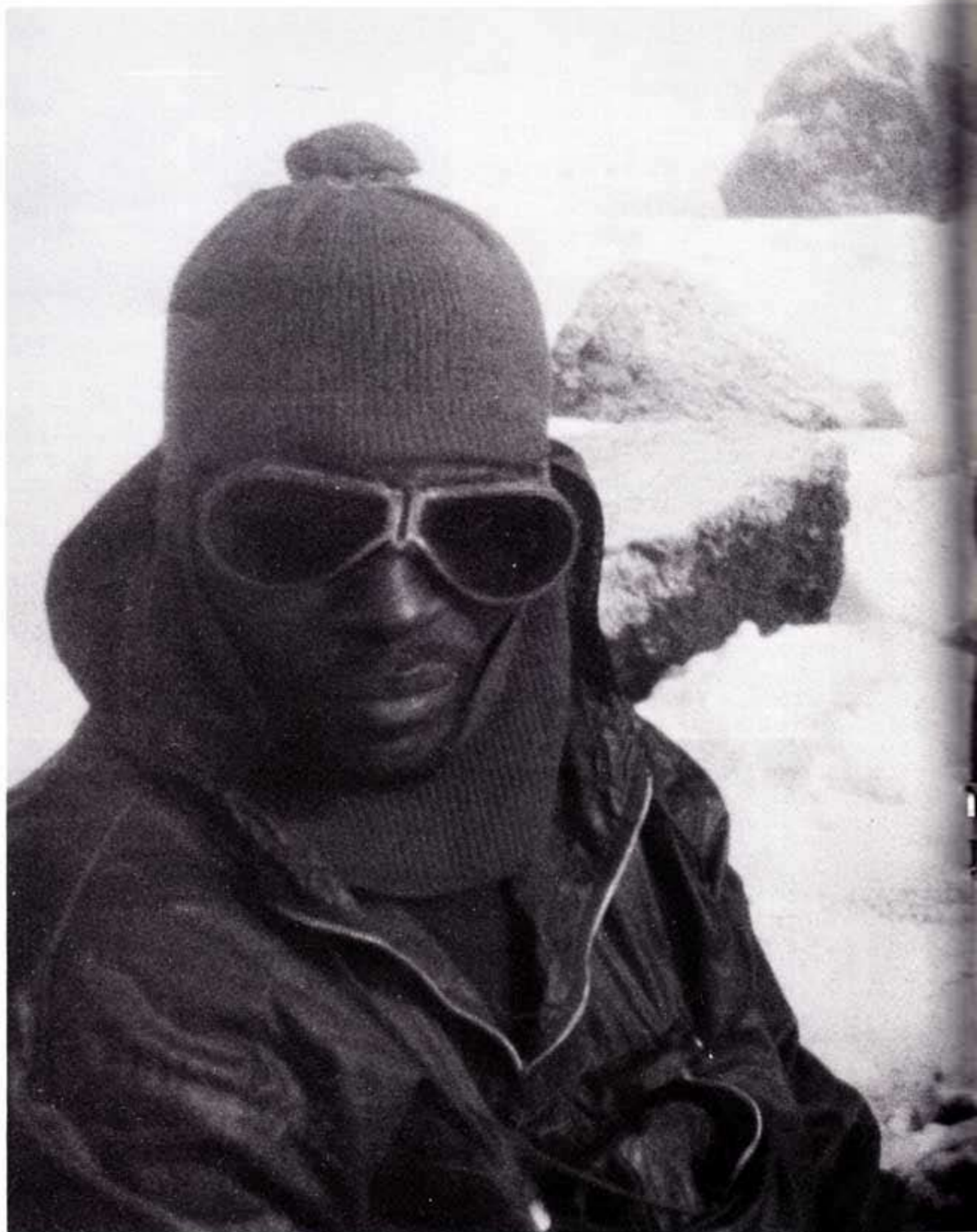
After a while I began to find it easier to operate, and started to think more in terms of the flight. For a start, there was nowhere to take off from, which presented a bit of a problem! I looked and looked and decided that anybody, including any League flyer that I know, with any idea of what a take-off point should look like, wouldn't have considered it on. There was a choice between a scramble over 9ft. round boulders spaced 4ft. apart, or 3ft. rocks with scree. I chose the rocks. We had to.

With enough build-up of energy by breathing hard, I reckoned I could get just enough momentum together to heave myself over the edge cleanly enough to dive

into flying speed and get away. Only just, for there was hardly any wind. I assumed from Tony's account that the rest of the oxygen had no chance of arriving and was resigned to that fact.

The climb from this arrival point, to the best take-off I could find, was 40ft. or so — and required working ones way through ice and up high slabs of rock with fairly good footholds — to an area where there were patches of thick, well-hardened snow. I was eyeing up that large rock, now famous by Nationwide, when David Kirke and the others appeared.

The rock was perfectly placed to finish you off with a broken leading edge just as soon as you thought you were away. I was trying to be certain that it would be possible to get enough airspeed to control away from the rock, if one wing was low. One wing *had* to be low, because on the take-off run, the left wing had to be raised





over two large boulders. David, at this point, shouted up for me to climb down and have a consultation.

I told him there was only one possible take-off point. And that there was no need for discussion. The cloud was getting thicker, and the film crew needed very badly to get some film of the take-offs. The whole project depended on it. We all knew what the cloud did later on. On previous days we had observed it thickening, and completely closing in, after 9am.

In a sudden demonstration of authority I made them realise the urgency of the situation. I wasn't prepared to go down to where they were, only to have to climb up once more. I stuck to my guns — told them that the only way was for me to demonstrate — and asked them to come up and start rigging their gliders. I carried on rigging my glider on the rock slab whilst Tony and Pete carted up the cameras and tried

to find the porters, who had been keeping the 16mm battery belts warm next to their skin. Unfortunately only one had done this — so we were low on power.

I had my new set of radios — supplied by Keith Coles — which Arathena the chief guide was using to try and contact the helicopter. He made contact and Simon Keeling then took over the radio, getting a message that the helicopter was short of fuel and the cloud of Moshi was closing in. If anybody was going to fly, it had better be quick: the message was there was one large gap left to the west of the town.

Shots of the gliders flying from the peak, taken from the helicopter would have been perfect for the film. The pilot had been thoroughly briefed and was very cautious. I was confident that he would not place himself upwind or generally too close to the glider. The problem was that

the helicopter cameraman was very concerned that if someone didn't take off soon he would have to go to refuel — a good hour's job. Eventually after bartering with the helicopter pilot for extra time, the glider was rigged and camera and tape recorder ready to go.

#### TAKE-OFF AND FLIGHT

I asked Simon Keeling to call up the helicopter for a last check on the cloud situation, and then had a go at picking up the glider. It felt incredibly heavy and after five or six seconds I eased it back down again. In front of me was 15ft. of rocks, below which was a sheer drop of 3,000ft. to the saddle. I started breathing deeply and made my first couple of steps. The right wing lifted hard and the left wing lurched down. I stopped and set myself up afresh, with some help from the others. At this stage I had to rest for nearly a minute. The tape recorder was already working, so I started to speak my thoughts, both for the recording and for the benefit of the others. I knew this time I had to commit myself, and made a supreme effort to control the glider, as I moved down towards the edge. The drop off the last boulder put me cleanly away and I was gradually picking up airspeed and praying for some response from the bar. A happy sigh, and then a whistle, came from the glider as I watched out to my right for the fated outcrop. I was flying away from the mountain!

Relief is a poor word for what I felt, as I eased the glider round to the right, came out of prone and waved back to the others. Back into prone, I watched the crater rim slowly move by — now about half a mile away to my right. Below me lay a beautiful fluffy white carpet of cloud, which gathered height and enshrouded Mawenzi. I looked ahead towards where Moshi must be lying somewhere below. A long dark gap is what I set my heart on. I tried to estimate my chances of making it. It was a worry, but I was so happy to be flying, and so exhilarated with the general view that I just concentrated on getting my thoughts together. It was at this point that I remembered the tape recorder, so I apologised to it that I had not been saying anything for the last five minutes and started explaining what was happening.

The following is a shortened version:

"In front of me the cumulus is towering up nearly level with my present height. I am worried about making the gap in the clouds, but the view is amazing. In a minute I shall have to make a decision as to whether I fly right in order to avoid a large build up of huge cloud to my left — or go the other way where there is more of a chance of reaching the gap before I sink into the top of the cloud."

Occasionally there were quite sudden increases in airspeed, without doing anything to the bar. I surmised that this was turbulence from Mawenzi, working on a large scale. My heart at this stage was continually in my mouth because the changes



in airspeed were tending to become more pronounced.

I had read accounts of the sort of problems that have been encountered downwind of the large mountains and was praying that the wind was light enough not to cause too serious sheers.

The path I decided on through the clouds worked out fine. There was no sign of the helicopter, when I got down(!) to cloudbase — it was another novel experience to approach cloudbase from above — I had some fun flying amongst the gentle wisps of cloud, then I saw Moshi in the distance and started looking for some good bases to thermal. Obviously it was

highly overdeveloped, and although I maintained height during a few 360's I felt it was wiser to try a straight glide towards the town. I looked back and up. Kilimanjaro had completely disappeared.

I had to rely now on Moshi, rather than the Ma wenzi-Kibo set up for my orientation. As I lost height, I concentrated on clear areas for a landing. I had noticed a large green patch next to a housing estate. I positioned myself for an approach, turned back into wind and landed without incident. . .

The heat was overwhelming, as people started appearing from everywhere. As I unclipped and looked up, I found myself

totally surrounded by inquisitive and unbelieving faces. Coming through the crowd was a police officer in khaki shorts, who eventually managed to get to me and asked me quietly for my papers. I explained that I had none and he asked me where I came from.

"From the top of Kilimanjaro," I replied. I watched him to see his reaction. He was looking down at the huge pile of my clothes, which had been heaping up as I had been stripping off. He gave the faintest hint of a smile. "In that case," he said. "Perhaps you may be excused."

---

## NEW INSURANCE RATES

by Reggie Spooner

It might have been quite fair to have entitled this note "Swingeing increase in Personal Accident Premiums". It is a fact that there is a very heavy increase in some of the premiums — and certainly much greater than I had hoped for. They are dealt with fully in this note, and I also take opportunity to up-date us on certain aspects of our liability and other insurances.

### PERSONAL ACCIDENT INSURANCE

The stark facts are that in this country — and I confine my remarks to UK based BHGA members and members of our predecessors, the NHGA and BKSA, have cost Insurance Underwriters, over this past five years, a sum well in excess of £100,000. Over £52,000 of that is being paid directly by Lloyd's who have underwritten the British Hang Gliding Association scheme — and that in return for payments to them by BHGA members of a little over £27,500.

No Underwriter can stand that sort of loss ratio and adjustments had to be made — especially in the area of greatest losses — and the result of those adjustments you will see in the Notice on Insurance Premiums. It may be that our premiums are now more in line with what they should have been in the first place — and what was more generally available on the market. It was an act of faith on the part of that Lloyd's Underwriter that gave us a scheme at all and it was only because we were able to show Training Policies, Registered Schools, Airworthiness Criteria, Pilot Rating Systems and many other credit factors, all of which demonstrated the very high sense of responsibility of the Hang Gliding world, that we obtained the cover and rates we did. Sadly, our record was shattered by the ten deaths which occurred last year, and now Underwriters seek to reverse the position where they have paid out £2 for every £1 received.

I should also mention, the over £50,000, that has been paid by Insurance Companies, generally in respect of insurances taken out long before the person concerned took up Hang Gliding — and in respect of which — only very small additional premiums had been paid in respect of the Hang Gliding risk.

That loss is well known in the Underwriting market and obviously has an influence in what is called the "Capital Risk", i.e. the risk principally of death or Permanent Total Disablement.

At this point it might be as well to define what insurance, and particularly Personal Accident insurance, is all about. I believe it can most simply be stated as:

"The pooling of small sums of money, by a number of participants — with equal risks — so that in the event that one is unfortunate, that person, or his dependants, can be compensated from the pool."

Of course, where risks are considered unequal by the nature of the type of flying, or by the aircraft flown, then assessments have to be made of the increased risk and generally an increased premium is sought. To grossly over-simplify, if the risk is judged to be twice as great, then a premium twice as great might be sought.

In the long run we can only get out of the insurance pool what we put in. Underwriters have augmented our contribution for the first five years, to cope with random and unforeseen early losses — but to continue, they, or any others who take over from them, will want an assurance that there will be a fair return.

\* If you refer to the tables, you will see that the Capital Sum rates have been doubled — and that for the Capital Sums insured in excess of £6,000, a much heavier loading is applied. To give some idea of Underwriters' thinking behind the very high increase for the higher sums assured, the 120 Certificates in current issue for £20,000 Capital Sum have collected premiums of £2,880.

Bearing in mind two previous claims of £20,000, the Underwriter is simply not prepared to risk £20,000 on a single flight. At the new rates he has asked for he would receive £9,600 in return for holding 120 people each covered for £20,000. That is the sort of risk he is prepared to accept.

For Temporary Total Disablement — where the vast majority of our claims occur, somewhere between twenty and thirty each year, Underwriters paid out only fractionally more than was received in premiums. I had hoped for no change there, but every Total Disablement Cover has a Capital Sum Cover with it — and it is for consideration that those of us with TTD Benefits should support those — or rather their dependants unfortunate enough to have to claim on Capital Sums.

To conclude, there are substantial increases, but increases which, if our accident experience is good, will no more than bring Underwriters back on to an even keel over a number of years. Our Hang Gliding risk is clearly identifiable and quite separate from all other risks — and thus we shall be called upon to balance the books in the end. Obviously other sources of insurance are being sought — and once we can assuredly say that we have implemented fully the pilot rating system, the airworthiness scheme and the Club coaching scheme — and we can show an improved safety record for 1979 — then the sooner we shall be able to go back to the rates we have enjoyed for the last five years.

### PUBLIC LIABILITY INSURANCE

As a result of the decision at the Annual General Meeting, the BHGA Master Policy wording has been revised so that, once their existing insurances expire, all Clubs will automatically be covered by the BHGA Master Policy, together with their Officers, the Landowners about whom they are concerned, wives, girl-friends and visitors. The present cover is in the sum of £500,000 and where a Club Secretary has not got a copy of the Master Policy he should apply to Chris Corston for one.

A word of explanation, the BHGA Master and Club Public Liability Policy is rather like your own Third Party Insurance on your car. In general terms, your car Policy undertakes to indemnify you for your legal liability at law. That is obviously in connection with your car driving activities. The BHGA Policy covers you, the Club, its Officers, etc. for their legal liability at law in connection with their Hang Gliding activities. In short, if a judgement were to be hung on one in a court, then the Policy would indemnify you for any damages and costs awarded. Of course, these cases seldom go to court and as soon as Underwriters see that there is case to answer, then they will invariably take up and pay for any defence.

It is a condition of the Policy that we never admit liability. We must remember that the Policy only undertakes to indemnify us if the Policy conditions are met and that requires the reporting of the incident — including the filling of the BHGA Accident Report form — immediately, and no more than a careful acknowledgement of the other party's claim — no admission of liability.

The BHGA Public Liability Policy does not cover Towing and does not cover Motorised Hang Gliding. Both are, at the moment of dictating, specifically excluded. Underwriters will include Towing, the moment that the BHGA have defined its operating and safety procedures, so that from those documents, Underwriters can assess the risk and any additional premium they might require.

Both Towing and Motorised Hang Gliding have been covered in a very small number of specific cases, where individuals have put forward their detailed requirements. I must underline though that only where specific clearance has been given for Motorised Hang Gliding and Towing, does the Third Party Liability operate. In all other cases it does not.

\*The Tables referred to are on page 25.

# LASER



## LASER

A full bodied intermediate/advance glider for the pilot with ambitions, whether it be competition, cross country, thermaling or just plain ridge soaring "Laser" fits the bill.

Laser has taken us a full year to develop and this extensive work has produced at last an intermediate glider with good sink rate glide angle and *penetration* so that when the winds freshen you won't automatically be grounded. "Laser" slices through turbulence with its cambered fully floating battened sail (no wing wires) and its strong easy to rig airframe allows you the maximum time possible in the air. Beam on to a Laser and light up the sky. Laser is available in two versions, a full length glider and a breakdown version folding to around 3 mtrs, that's just 10 ft. for storage and transportation. As with all Wasp gliders Laser comes as standard with a fully anodised airframe.

Dimensions	190
Leading Edge	20 ft.
Keel	8' Effective
Area	190 sq. ft. 17.65 sq. mtrs
Nose Angle	120°
Aspect Ratio	6.2
Span	34'6"
Sail Billow	0°

## Waspair Limited

Restmor Way, Hackbridge Road,  
Wallington, Surrey SM6 7AH. England.

Telephone: 01 - 647 4343  
Telex: 943763 Crocom.G.Waspair

LASER, THE DIRECT PATH TO PERFORMANCE

# IMPRESSIONS OF FLYING IN SOUTH AFRICA

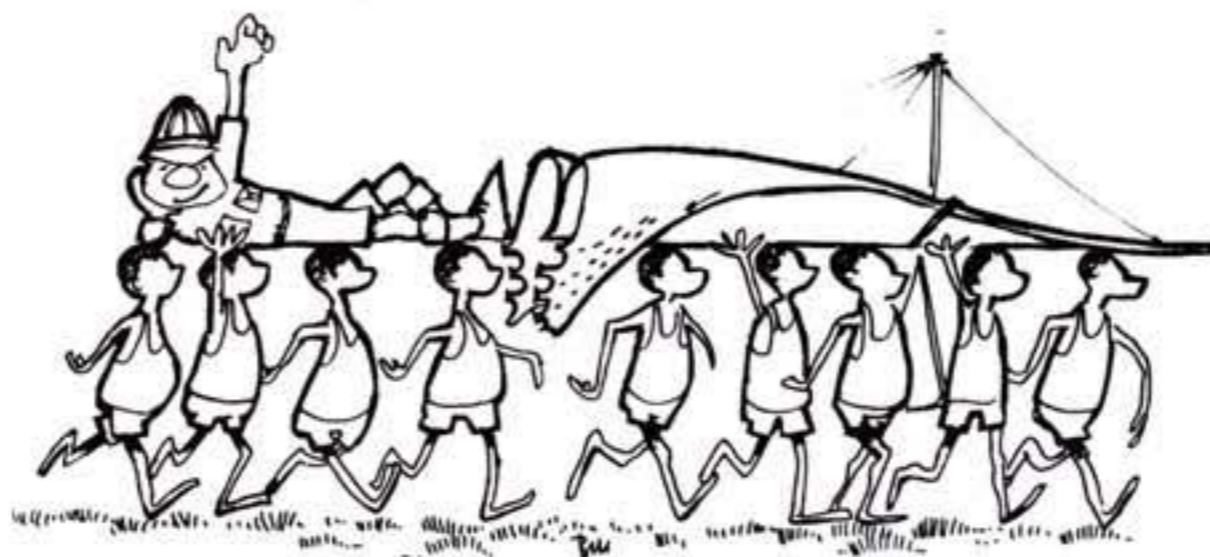
BY KEN MESSENGER

Sitting in the 747 with my wife Barbara during the 15 hour flight to Durban via Zurich and Nairobi I couldn't help thinking about the last trip abroad we had taken to the America's Cup. Having listened to the glowing reports about the flying in Tennessee I was frankly very disappointed, there being only a few days soarable — and even then you were forced to end the flight at the bottom to be followed by a long recovery. So I mentally prepared to approach the flying in South Africa with a certain amount of reserve to avoid being disappointed again. I need not have worried. Richard's glowing account turned out to be one hundred per cent accurate. I know it is not fair to compare two huge continents after having visited only one area in each, but from what I have seen, give me South Africa every time.

The contrast between snow-bound, strike bound Britain and the warmth and lush green vegetation of Durban was very marked to put it mildly. We spent the first three days in a state of semi consciousness mostly because of the heat but partly because of Michele and Richard's enthusiastic welcome aided by considerable quantities of the excellent local wines. After several days we were able to persuade customs to part with the crate of gliders we had sent out and I prepared to meet some of the Durban Hang Gliding Club members.

To put you in the picture as to the general scene there are about 500 members in the hang gliding section of the Aero Club of South Africa. This number is fairly stable. Basically there are three clubs, one

Ken Messenger discovered for himself what flying conditions are really like in South Africa. Following numerous invitations from Richard Bickel, (now living in South Africa — but well known here for his crossing of the English channel by hang glider towed behind a ski boat) he and his wife Barbara left London bound for Durban.



each in Durban, Pretoria and Capetown. If you are familiar with local geography you will realise that it is like your next nearest club to your local one being in the south of France somewhere. The gliders flown are a mixture of American, British and local built machines. Only one local built glider I saw was impressive and that was the Ibis built to a good standard of finish and design by Aiden de Gersigny. Other local gliders were cheap copies of American designs and not good American designs at that! Our victory in the America's cup will probably change all that.

Pilot skills amongst the better pilots are very good indeed and I think if they are able to sort out the team selection procedure, so that the best pilots resident there come to Grenoble, they will have a good competitive team.

Unfortunately many of the best pilots, although resident, hold English passports and may not be allowed Springbok colours. I discussed the problems we have had in the past in the U.K. about team selection and explained our current methods. I was just about to recommend they contact Brian Milton when I remembered his feeling about S.A. and dropped it. Specific pilots I happened to see, and was impressed with, included John Powell "Fledgling" who never seemed happy unless his Fledge was either standing on a wingtip or spinning wildly down. I let him fly my Moonraker 78 and he immediately did the same with that except that it refused to spin after about 1½ turns and kept pulling out. George Long (current class 1 Champion) and Aiden De Gersigny on Ibis were very good thinking

pilots. Eric Cornhill and Richard Bickel on Moonraker 78's currently Class 2 Champion and runner up also have what it takes. Martin and Mike McKenzie are flying very competently on Cherokees. Thanks to all these guys and many more who made our visit so enjoyable. The distance record there stands at approximately 42 miles (a genuine cross country) and duration at 9½ hours.

It was proposed that for a start we fly the sites near Durban and then travel about 650 kilometres to Barberton (site of the cancelled world Championships) taking in the Kruger game park on the way. Incidentally, if you have read the Wilbur Smith books this is the area many of them are based on. His vivid descriptions of the veldt and bush country, the gold mines and the violent thunder storms were all coming to life as we travelled. The hyena laughing like a girl in the night, an elephant standing by the roadside under a tree quietly flapping its huge ears to move the flies. Somewhat different to our native Wiltshire downs.

Durban sites include the "Bluff," a 200ft. high semi-cliff about 14 miles long overlooking the Indian Ocean. The local pilots have a ball here when the wind is right. Not that it is a challenging place to fly, but it is so smooth and easy and the view is terrific. Take-off is from a vacant building plot on the cliff edge and the cliff is lined with luxurious houses with beautiful gardens and swimming pools. This was the place Richard nearly had a big problem when an irate husband let fly with his shotgun because he thought he was

spying on his wife sunbathing in the nude. At times like these you are thankful for a glider with a good sink rate to put you out of range!

"One Gum" is about 15 minutes drive from the centre of Durban, 1,100ft. vertical. After a rounded grassy top, a sheer cliff leads to a large fast-flowing river in the valley. It is not normally as thermic as might be expected because everything seems to be hot. Favourite top landing place is on the golf course about a mile downwind — handy to get an iced drink whilst you wait for the recovery vehicle. A bottom landing is an experience not to be missed and almost worth deliberately going down for. As soon as you land, herds of Zulu children will appear like magic from the bush and fight for the honour and privilege of carrying your folded glider back across the river to the road. It looks like an overgrown centipede with about 15 pairs of legs. You only need a pith helmet to complete the "White Hunter" image.

"Inanda" is almost 2,000ft. high again with a rounded grassy top and an almost vertical cliff below. It is in a Zulu reserve and as you fly you can see the native "Renovels"

(round hovels) in groups of three and four surrounded by a protective wooden fence. The lift is obviously good and it is difficult to remain below cloudbase which is often no higher than 1,000 over T.O. One day conditions were particularly good and it was possible to fly over a wide area up to about 3 miles in front of the ridge. Unfortunately cross country flights are not on from here because there is nothing but miles of wild country behind the hill. During one afternoon at Inanda we saw in the distance beyond the river the McKenzie brothers approaching rapidly in their cars. They had seen the flying and were naturally anxious to join in. Imagine their frustration when they discovered the river ford to be too deep to cross safely and had to sit watching for three hours whilst the river went down. We could see them through the field glasses jumping up and down on the bank. That's probably why Martin shoved a chameleon down the front of my shirt when they did arrive.

Barberton is in the Eastern Transvaal near the Mozambique border, it is famous for its gold mines and in the hang gliding world for the world championship that never took

place because of the interference in sport of politics. Hang gliding outside South Africa is the poorer because, from what I saw there, it is an absolutely first class competition site with potential conditions far better than any I have seen in America or Kossen. It is part of a huge natural bowl about 15 miles across. There is rarely wind as such but as the sun warms the air in the bowl it flows up and over the 2,500ft. mountains around the edge in a beautiful stream of thermals. As the day wears on so the thermals merge to give some amazing late afternoon rides on buoyant air that makes the glider feel like it has no sink rate. The cross country potential is there but not usable in the normal downwind way because of barren mountains and the possibility of terrorists from Mozambique. Flights forward, into what little wind there is, are a tremendous challenge and would give the best thermal pilots something to get their teeth into. There are two T.O. Points, Lone Tree (1,500ft.) which has the niceties like toilets and an iced drink facility and White Rock (2,500ft.) on the top. Lone Tree is the most sensible T.O. as it is normally possible to climb out above White Rock

anyway. The landing area is on the golf course where the pilots are made most welcome and all the facilities, i.e. food, drink, showers, etc., are available. Favourite sources for thermals are over the prison and the railway yard. Richard was able recently to circle quietly for 20 minutes at only 200ft. up in the late afternoon.

During the whole of our stay only one day was not flyable, because it was raining. There are many things I will remember about this trip. The slightly obscene look of pilots in prone harnesses wearing only shorts. Finding that one of the hazards for us "Red Necks" soaring in the strong sunshine was the burning of the backs of your legs — (you can always tell a pilot because he has two white rings just below the knee where the knee hangers go). Having bikini-clad girls around the launch area even though there is a 20 mph wind blowing. This really enjoyable visit was made even better by the superb hospitality of Richard, Michele, Mike and Martin McKenzie and the members of the Durban Hang Gliding Club. Thanks.

***there is  
one real  
superior  
alround  
glider :***

***the 'Cherokee'  
by Birdman***



# FATAL ACCIDENTS 1978 by John Hunter and Tony Fuell

We show in this article, summaries and graphs relating to the fatal accidents that occurred during 1978. We would like to point to certain areas within hang gliding to which these accidents relate.

## Manufacturers

We are pleased to record that no accident was caused by an original design or a manufacturing fault, but some of the hang gliders had been modified without the permission of the manufacturer/designer, and in one case the modification was an important factor in the accident. (The following recommendations were therefore made to BHGA's Council during 1978):—

1. All modifications must be made with the written approval of the manufacturer/designer or an authorised agent.

2. There should be a defined distance between the bottom of the hang point and the bottom bar, thus eliminating makeshift hang points and the unnecessary complication in harness' to make them adjustable over the wide differences between different models of gliders.

3. There should be a system of licenced/authorised repairers put into operation by the Manufacturers Federation. A list should be prepared and published by the BHGA.

## Training

No accident could be attributed to the method of training at BHGA Registered Schools, but the series of accidents certainly highlight the lack of continuity in training and it is in this area that we feel some improvements could be made. The BHGA is instituting a more formalised training, e.g. club coaches, training weekends run by the Flying and Training Officer, and details will appear in future *Wings!*.

The Pilot Handbook has in fact covered the written side but we must all be aware from our past experience that what has been written in *Wings!* concerning various aspects of accidents does not prevent similar accidents occurring.

## Clubs

The BHGA clubs must be more concerned about the wel-

fare of their members in order to try and improve the control of their sites, especially during the mid-week and to try and form a system whereby pilots who appear to have problems can be helped by the more experienced pilots initially, and club coaches eventually.

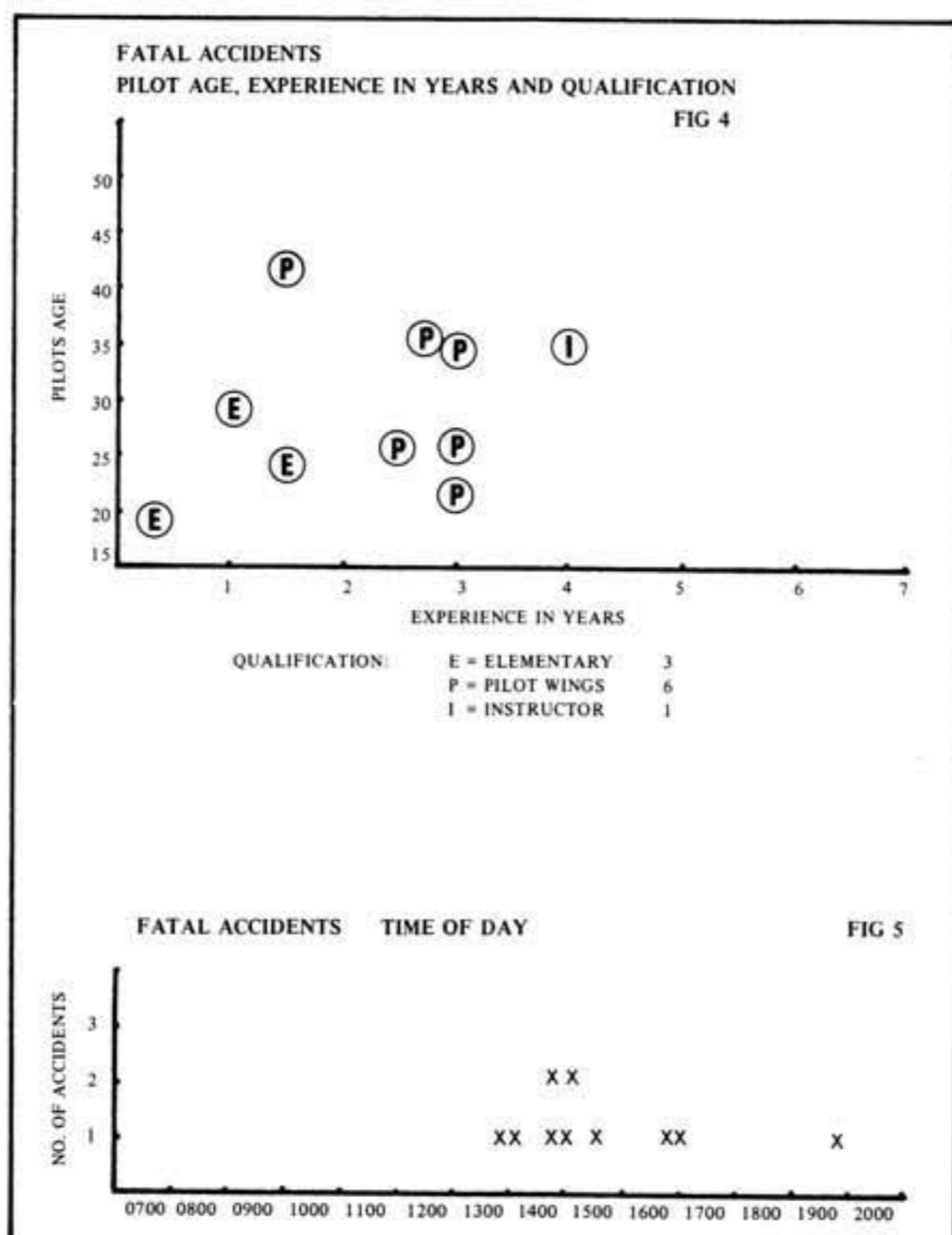
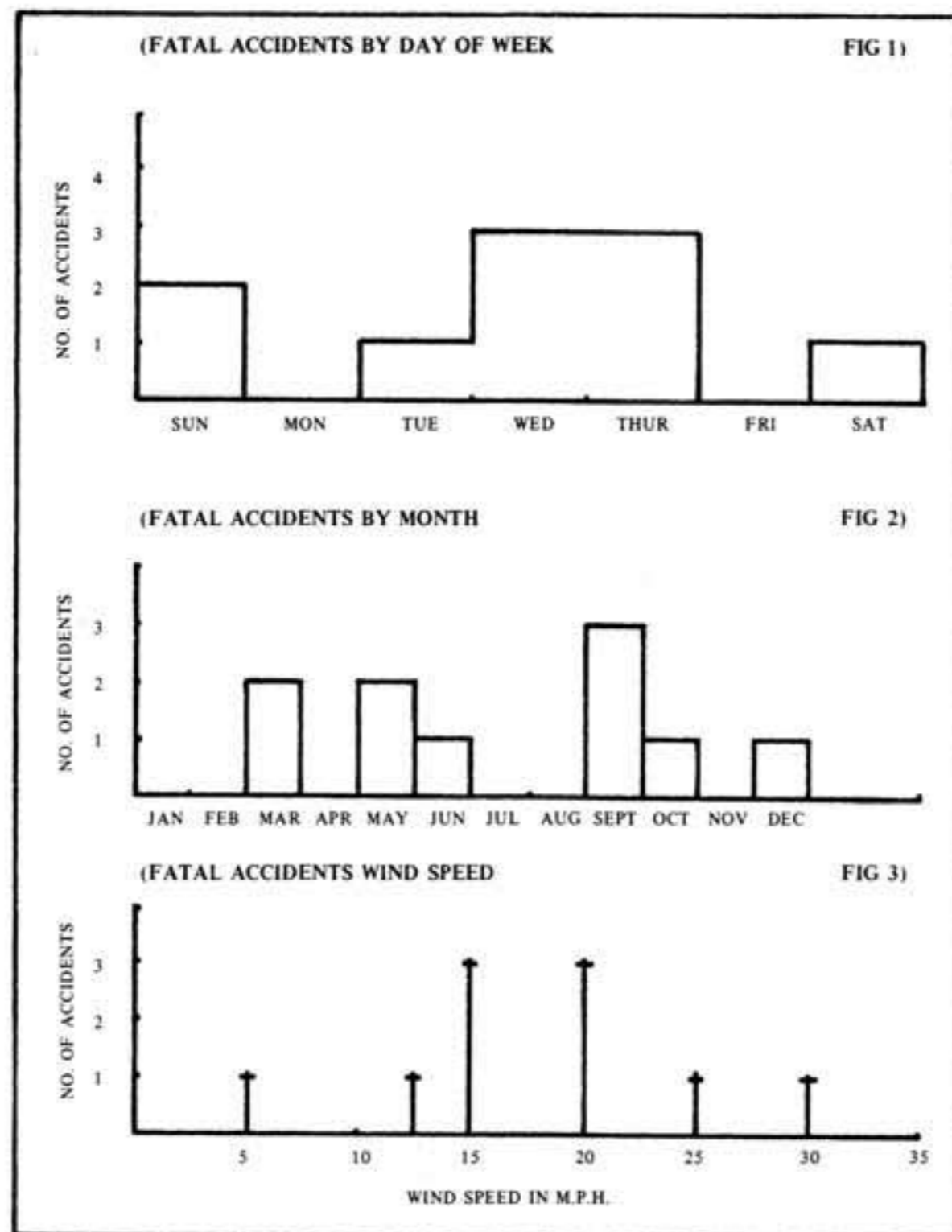
## BHGA Council

It is proper that John, as the investigator, only makes recommendations and that these recommendations are passed to Council for them to act upon. It was quite obvious early on in the year that there was a potentially high accident rate for hang gliding, the introduction of high performance machines, the previous year's bad weather indicating that pilots had not had the opportunity for the continuity of their flying experience, the introduction of powered hang gliding and the majority of the BHGA members coming towards the 3 year flying point (200 hours syndrome).

The reporting system that we have used via *Wings!* has sometimes been vague due to legal problems, but for those reading the articles preceding or accompanying the report the picture should be clear.

Common to the fatal accidents during 1978 is an inference made that the pilot had either made an error, or at least an indiscretion at some time prior to the flight or during it. It is a phrase commonly used in aviation accident reports and without doubt seems to cover most of the contributing factors. It has, however, been proven that the error made, at the time, has been the best of several bad alternatives. The fatal outcome of these errors make them particularly grave, but this is certainly not so. These errors have, at some time, been made by other pilots who have survived, and in many cases the pilots have not known that they have been in a situation that could have caused their death or serious injury.

We hope this year that a more vigorous approach will be made towards prevention, and that 1978 will be considered the peak for fatalities and that we will be able to reduce them considerably.



**C. Bissett,**  
Cairngorms, Nr. Aviemore.  
8.3.78

**Summary**

The pilot launched in the seated position with skis. The hang glider rapidly ascended to approximately 350ft. above the launch point, drifted left and the pilot was seen to separate from the hang glider and fall to the ground.

**Conclusions**

The pilot had extended his hang point to allow for the shorter seated harness. The material used was a length of sash cord. It was established during the investigation that this extension of the hang point failed in flight.

**Suggested Recommendations**

On hang gliders there is nearly always a difference between the hang point position and the bottom of the A frame. This then entails complex systems of lengthening or shortening harnesses or adding on extension pieces to the hang point. It is too easy to use materials that are not suitable and that the Manufacturers Association should be asked to ensure that there be a constant distance between hang point and the bottom bar on future designs of hang gliders, and that a system also be set up in order to retrofit suitable hang points to make this distance constant on gliders already in use.

Age 34

Experience — Pilot/Instructor.  
4 years plus.

Hang Glider — Wills Wings SST.

Wind speed — 20 mph plus.

pilot had time to recover, he made very little or no effort to do so.

After inspection the hang glider was found to be serviceable and all the equipment intact.

**Recommendations**

1. The British Hang Gliding Association Competition Committee should review all competition tasks in the light of the conclusions of this accident.

2. A Safety Officer/Director should be appointed at all competitions held by the BHGA or its member clubs, with the authority to modify, postpone or cancel any task where changes (e.g. wind speed, direction, visibility) have occurred making the task

potentially dangerous to the competitors.

It would also be advisable that a minimum height for a particular task be determined in order that any errors made by a pilot would be at a sufficient height to facilitate recovery.

**Action Taken**

The Competition Committee accepted and implemented the recommendations.

Age 42.

Pilot weight 70 kilogrammes

Experience: 1½ years. Had Pilot Wings.

Wind speed 12-14 mph, slightly off hill.

Hang Glider — Scorpion B, flown prone.

**P. Renouf**  
Penveour Point, Cornwall.  
18.5.78.

**Summary**

The pilot took off from Penveour Point, flew out over clear water. Failed to gain height, did a 180 degree turn and attempted to make Vault Beach. He failed to make the landing area and ditched at the bottom of the cliffs.

The hang glider and pilot were recovered from the sea some 6 hours later.

**Probable Cause**

The pilot made his decision to bottom land too late in the prevailing conditions and was forced to ditch. It was also noted that it was virtually impossible for him to unclip due to the disorientation under water and the slight swelling of the soft leather reinforcement on the hang point.

**Recommendations**

Although it would be wise to make far-reaching and comprehensive recommendations for all coastal flying of hang gliders, the important factor of this particular accident was the inability of the pilot to release himself from the hang glider, or failing to do so, being able to put his head above the surface of the water. It is therefore recommended that all hang glider hang points and harness clips should be of the type to allow free movement of the carabiner, and should be able to be operated by one hand whilst in the flying position. It is also recommended that all pilots flying over deep water should have some form of flotation and should carry a small well-sheathed knife on their shoulder or somewhere that it is easily accessible.

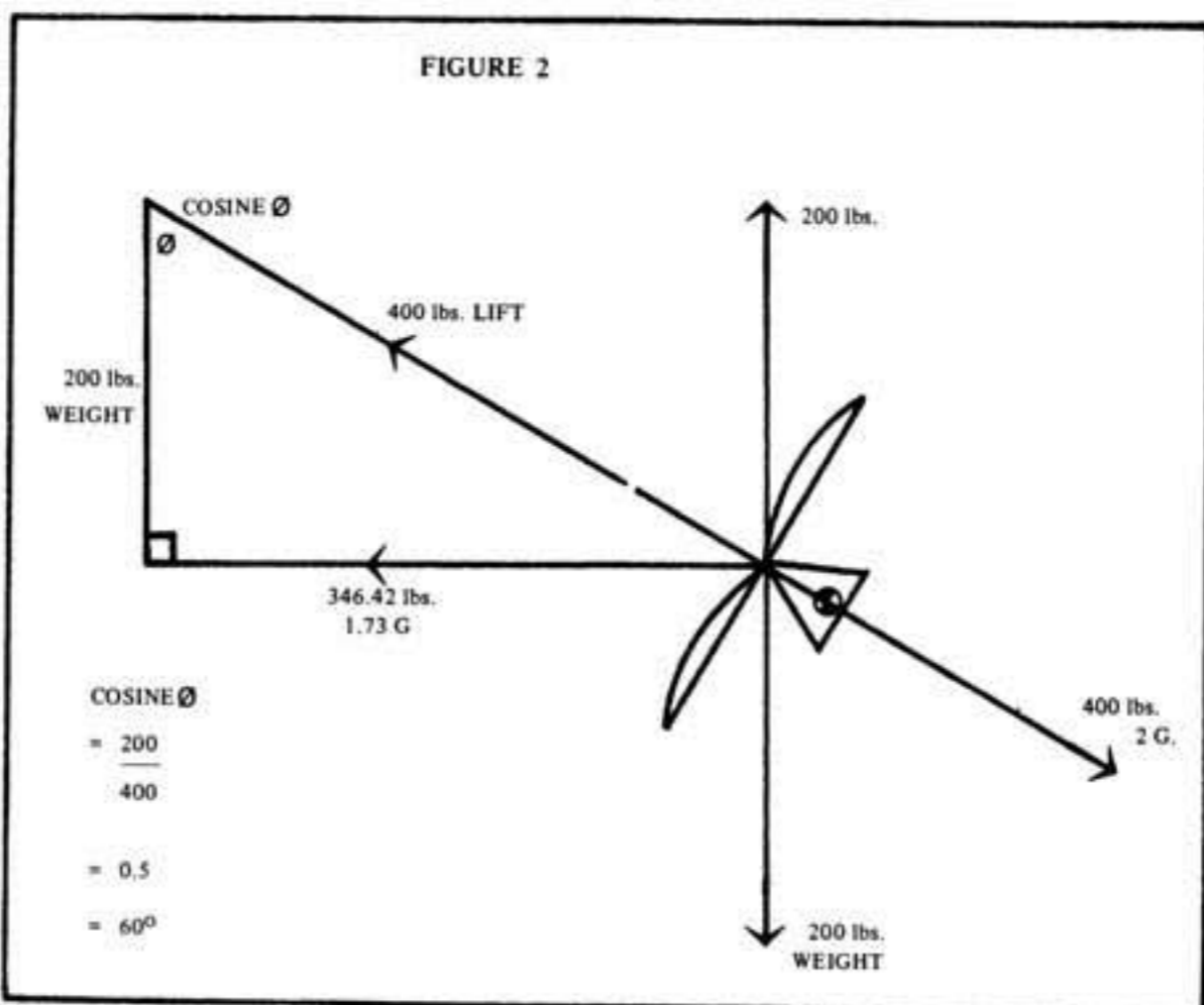
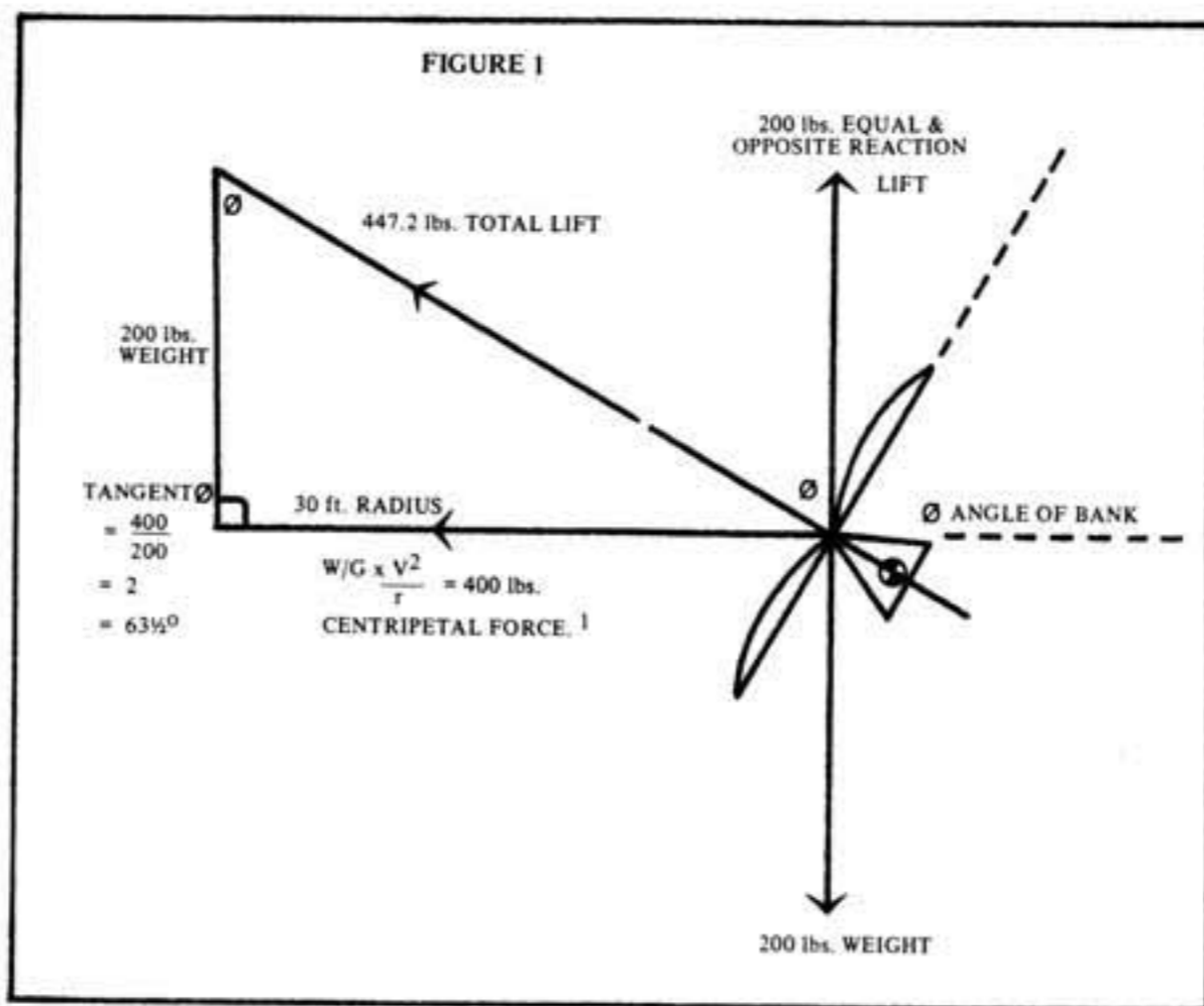
BHGA have been asked, with some urgency, to compile and publish a code of practice for all their members that are likely to fly coastal sites.

Age 34. Pilot weight 60 kilogrammes.

Experience: 3 years flying.

Pilot Wings.

Hang Glider — Scorpion B.  
Hiway Prone harness.



**A.D. Bennett,**  
Brown Wardle Moor, Nr. Rochdale  
12.3.78.

**Summary**

Whilst performing in a roll rate task the pilot was seen to stall, turn left and impact into the side of the hill.

**Conclusions**

It was my opinion that:

1. The pilot was under pressure to perform a task whilst taking part in a roll rate competition.

2. After the stall, although the

Continued on next page

**N. Lawler**  
Wittenham Clumps, Nr.  
Didcot  
21.5.78. 12.50 G.M.T.

#### Summary

Pilot took off for the second flight of the day, climbed to a height of approximately 100ft., executed a 360 degree turn to the right. During the flight the pilot was observed to be making use of both mouth and hand throttles. The pilot then turned right to approach the Clumps on a westerly heading, flying towards the hill top at right angles to the wind. As the aircraft approached a spectator who was operating a cine camera, it was observed that the hang glider pitched down and the engine power increased. The hang glider struck the ground a short distance from the summit with the engine still running.

The Chief Inspector of Accidents, Department of Trade, has ordered an Inspectors Investigation into this accident which is still being carried out.

#### Recommendations

*None as yet.*

Experience — 3 years flying.  
Pilot Wings.  
Hang Glider — Powered Falcon IV.

**G. Taylor**  
Merthyr Common  
7.6.78. 18.15 hrs.

#### Summary

Mr. Taylor launched from the West face of Merthyr Common into a wind of 26 mph and after soaring for about 20 minutes entered cloud. The hang glider then reappeared in a steep dive. It immediately pitched up with a loud crack and was seen to go into a right hand spiral dive impacting approximately 200 metres below the point of take-off.

#### Conclusions

It was found that the hang glider had been modified by the pilot and in particular the out-rigger wire had been closed by a swage that had been hammered. It is possible that this failed at the same time as the pilot made a rapid recovery, allowing the centre of

pressure to shift pitching the nose of the hang glider up, stalling the aircraft and collapsing the right cross tube, after which the pilot lost control and went into an almost vertical rotating dive.

#### Recommendations

1. *Modifications to hang gliders should not be done without the written authority of the manufacturer or his agent.*
2. *Local weather conditions must be considered before take-off and maintained throughout the flight.*
3. *Hang glider pilots who are using swages must use the correct tools for the job.*

Age 26.

Experience: 2½ years flying,  
Pilot Wings.  
Hang Glider — Cirrus II

**J.B. Humphreys**  
Merthyr Common  
12.9.78. 16.00 hrs.

#### Summary

The pilot took off from the westerly face of Merthyr Common flying prone on a Falcon IVB hang glider. He soared for a while in both dynamic and thermal lift and was seen to approach down wind towards the landing area. At about 7 metres above the ground with the right wing down the hang glider stalled and impacted 100 metres north of the take-off point and 20 metres behind the ridge.

This was the pilot's second prone flight and he appeared to be attempting a 360 degree approach to land.

It is probable therefore that the causes of this accident were:

1. The pilot's inexperience in prone flying.
2. Misjudgement by the pilot of his air speed by reference to the ground speed.
3. That the pilot made an error in judgement by attempting to approach a landing area by a 360 degree turn.

#### Recommendation

*The British Hang Gliding Association must encourage clubs and schools in instituting some formalised method of continuity in training.*

29 years old.

Experience: Elementary Certificate, 12 months flying.

**R. Philips.**  
Milk Hill, Nr. Devizes.  
13.9.78. 15.55 hrs.

The pilot took off into a south westerly 12 mph wind and was seen to fly slightly away from the take off point. He initiated a slight turn to the left and when he was approximately 17 metres above the edge of the cut-away of the hill, the hang glider turned right and turned back towards the hill and impacted at an angle of 20 degrees to the slope.

#### Probable Causes of the Accident

1. The pilot failed to maintain adequate airspeed and was too concerned in gaining height.

This particular hang glider when approaching the stall losses roll control before pitch. When the hang glider was turned back towards the hill it was in a stall position and the pilot had insufficient height to affect recovery.

#### Recommendations

*None*

Age 24

Experience: 18 months intermittent flying  
Conversant with site.  
Prone.

**T. Gilbert**  
Stanage Edge, Derbyshire  
23.9.78.

#### Summary

The pilot took off into a 14 mph wind and climbed cleanly away from the take off area. It was noticed that he was having difficulty in locating the stirrup of his harness and the hang glider turned to the right and started to fly parallel to the ridge for about 50ft. losing height all the time. The pilot was still concentrating on locating his stirrup but by this time the hang glider was turning towards the hill. The pilot realised this and attempted a recovery by moving his weight but failed and impacted into the side of the hill about 100 yards from the take off point and below the level of the ridge.

#### Conclusions

The pilot was not concentrating on his air speed or even the direction in which he was

flying and did not realise until too late that he was flying towards the hill. There was some doubt about the airworthiness of this hang glider and its response to the pilot's movements. It had been noted that the pilot had previously had several accidents whilst attempting to take off.

#### Recommendations

1. *A pilot at all times must have the control of the hang glider uppermost in his mind.*
2. *If a pilot finds a certain type of harness difficult to use he must find one that is easier.*
3. *No modifications should be made without the written approval of the manufacturer/designer.*
4. *Any repairs to a hang glider should be carried out with full attention to detail.*
5. *That the BHGA and associated clubs should be more aware of the flying capabilities of pilots and give assistance where necessary.*

Age 36.

Hang Glider — Manta Fledgling  
Experience: 2 yrs. 10 months.  
Pilot Wings.  
Wind speed: Approx. 14 mph.

**J. Randall**  
Tredegar  
5.10.78. 14.00 hours.

#### Summary

The pilot took off and soared the ridge for approximately 5 minutes. An eye witness stated that he did some stalls to gain height. Approximately 60 metres above the take off point, and on the third stall, the hang glider continued to the vertical position and the hang glider fell backwards with the pilot hanging on to the A frame. Both leading edges failed and the hang glider impacted 100 metres NNE of the take off point.

#### Conclusions

The pilot, against all advice, flew in wind conditions that were not suitable for that site. The eye witness' account of the third stall indicates that the pilot was not pushing out but was hanging on to the A frame. No hang glider can recover from a tail-slide of this magnitude and the failure of the leading edges allowed the pilot to



impact before the hang glider at approximately 50ft. per second.

### Recommendations

Clubs should be encouraged to control sites within their area so that when visitors arrive they should be provided with a fact sheet defining the parameters of flying and conditions in which the site is safe or not. This also could include take off and landing areas, parking and the nearest telephone box.

Age 19 years.

Hang Glider — Midas Super E.

Experience: 4 months, Elementary Certificate.

Wind Speed: 36 mph plus.

**C. Reid**  
**Mill Hill, Nr. Shoreham**  
**28.12.78. 13.40 hours.**

### Summary

The pilot took off from Mill Hill on a Wasp Falcon IV hang glider and flew for approximately 5 minutes. He was seen to be flying slowly south towards Shoreham Airport when the hang glider turned towards the hill and, after passing through approximately 180 degrees of the turn which brought the hang glider over the top of the hill, the hang glider dived into the side of the covered reservoir.

### Conclusions

The pilot failed to maintain

adequate air speed for the conditions that he was flying in and although he would have been aware that he was flying slowly he failed to increase his air speed in order to prevent the stall which occurred.

### Recommendations

Pilots must be aware that hang gliders can appear to be flying normally in a near stalled condition and any change in conditions can put the hang glider out of control.

Although this was not a factor within the accident, the hang point caused considerable concern due to its damaged state. It must be stressed that all prime structures must be maintained in a first class condition. Any

wear or tear, or doubt at any time, as to the strength of any prime structure, must result in the replacement of the part.

Age 23.

Pilot Wings — flying three years.

Hang Glider — Wasp Falcon IV.

Wind speed: 10 knots gusting 20.



# INSURANCE

## NEW INSURANCE RATES

THE FOLLOWING INSURANCES ARE THE NEW RATES, EFFECTIVE 1st MAY 1979, ALL PLACED AT LLOYD'S AND APPLICABLE TO UNITED KINGDOM BASED BHGA MEMBERS — AND ARE EFFECTIVE THROUGHOUT EUROPE

### PERSONAL ACCIDENT BENEFITS IN THE EVENT OF A HANG GLIDING ACCIDENT

#### CAPITAL SUM

IN EVENT OF DEATH, LOSS OF EYE/LIMB (OR USE THEREOF) OR PERMANENT TOTAL DISABLEMENT

Code	Capital Sum Benefit	Premium
A2	£ 2,000	£ 4.00
A3	£ 3,000	£ 6.00
A4	£ 4,000	£ 8.00
A5	£ 5,000	£10.00
A6	£ 6,000	£12.00
A10	£10,000	£30.00
A15	£15,000	£60.00
A20	£20,000	£80.00

#### WEEKLY BENEFIT

PAID UP TO 104 WEEKS (EXCLUDING FIRST 14 DAYS) FOR SO LONG AS DOCTOR CERTIFIES YOU TOTALLY UNABLE TO FOLLOW NORMAL OCCUPATION

Code	Weekly Benefit	Premium
D20	£20 per week	£12.00
D30	£30 per week	£18.00
D40	£40 per week	£24.00
D50	£50 per week	£30.00
D60	£60 per week	£36.00

FOR COMPETITION PILOTS *i.e.* THOSE WHO TAKE PART IN NATIONAL OR INTERNATIONAL COMPETITIONS OR IN THE LEAGUE —, OR IN ANY COMPETITIONS ABOVE CLUB LEVEL, UNDERWRITERS HAVE INSISTED ON THE ABOVE RATES PLUS 25%

### FOR MANUFACTURERS, THEIR EMPLOYEES AND INSTRUCTORS PLEASE ADD 50% TO THE ABOVE PREMIUMS

No Proposal Form required, provided you are between 16 and 65, warrant you are fit and declare any serious accidents or illnesses during past five years, we can normally give cover immediately we receive your NAME, ADDRESS, AGE, OCCUPATION, GLIDER DETAILS, BHGA OR CLUB MEMBERSHIP NUMBER AND CHEQUE.

### GLIDER ALL RISKS (GROUND) COVER

Policy excludes Flight Accidents but covers every accidental ground risk that we have yet thought of, e.g. Theft, Damage resulting from Car Accident, etc. (Excluding first £5.00 each claim). Includes 30 days in Europe each year.

GLIDER VALUE	£300	PREMIUM	£8.00	GLIDER VALUE	£400	PREMIUM	£10.00
GLIDER VALUE	£350	PREMIUM	£9.00	GLIDER VALUE	£450	PREMIUM	£11.00

EACH ADDITIONAL £50 VALUE — ADD £1.00 PREMIUM

RATES FOR CLUBS, MANUFACTURERS, SYNDICATES AND WORLDWIDE COVER ON APPLICATION

### LIFE & ENDOWMENT & HOUSE PURCHASE ASSURANCE

There need be no Premium loading to cover the Hang Gliding Risk. We have arranged Special terms for BHGA Members. Please outline your requirements.

### CLUB LIABILITY POLICY

The BHGA Master Policy provides (£500,000) Public Liability Cover for all Clubs, their Officers, Committee Members, Members, Wives, Girl-friends, Associate Members — and does meet all notified National Trust, Landowner and Local Authority requirements. That cover is valid throughout Europe.

**NOTE NONE OF THE ABOVE COVERS THE TOWING OR MOTORISED HANG GLIDER RISK. QUOTATIONS FOR THOSE RISKS WILL HOWEVER BE GIVEN IF YOU WILL SEND DETAILS.**

HOLIDAY COVER — INCLUDING THE HANG GLIDING RISK — DETAILS ON APPLICATION.

REGGIE SPOONER INSURANCE BROKER FOR THE BHGA, CLIFTON HOUSE, BATH RD., COWES, I.O.W. PO31 7RH.  
 TELEPHONE: COWES 2305

# Hiway territory.



The sky becomes your playground when you fly one of the new range of Hiway hang gliders.

No longer need you sacrifice handling to gain high performance. Super scorpion and Spectrum become your obedient servants as you fly from thermal to thermal.

And you get all this without the cumbersome and drag creating deflexor arms and wing wires. The simplicity of the new machines mean that you'll be first to rig and first to fly.

Whether you're a cross-country pilot, competition flyer or just gliding for fun, Hiway have the machine for you.



**Hiway Hang Gliders**, Sirhowy Hill, Tredegar, Gwent NP2 4XP.  
Telephone: Tredegar (049 525) 4521.

# INFORMATION



"LEAVING IT RIGGED BETWEEN SITES IS LESS TROUBLE" IS WHAT YOU SAID WASN'T IT NOW?

## REMINDER

The Steyning Open Hang Gliding Championship will be held on June 2nd and 3rd at Steyning Bowl, Sussex. A Johnny Carr Disco will be held on the Saturday night as an additional attraction.

A further event will be held over the August Bank Holiday weekend at the same site.

## NORTH DEVON SAILWING CLUB

Cyril Kevern is the new chairman and Dave Beard is the new secretary. Dave's address is 2 Richmond Avenue, Ilfracombe, North Devon. Tel: Ilfracombe 62071. Other contacts are Ken Sheaf, Woolacombe 320 and Mike Stainer, Braunton 813482.

The club has said farewell to Pat Turner and Ted Grey and thanks them for all the hard work they have put into the club since its early days.

## MERE FEES

As from April 30th, fees at Spencer's Bowl, Mere will be increased to £1.00 per glider per day. Please make sure you pay for your glider.

## NO FLYING AT LOBB

Lobb Hill, a site previously used by the North Devon Sailwing Club, has come under new ownership and as a result is no longer flyable. It cannot be renegotiated and under no circumstances can it be flown.

## EGER CUP '79

The "Eger Cup '79" International Hang Gliding Meet will be organised by the Technical University of Budapest this year, from 1st to 7th July 1979.

Eger is situated 130kms. east of Budapest. Aims of this meet are to achieve height, distance and duration flight records. Height results will be certified by the competitors' barographs.

Entry fee: 25\$

Entry closing day: 5th June 1979. Accommodation: in Student Hostel in two or three-bedded rooms.

Entries should be sent to: Muegyetemi Sarkanyrepulo Klub, 1502. Budapest, P.O. Box 91, Hungary.

Accommodation desired for pilots, family members or friends should be indicated.

## ANNUAL SUBSCRIPTIONS

At the Annual General Meeting, it was decided that in future, the premium for the BHGA's insurance cover should be paid from central funds. Until now, clubs have provided the bulk of the annual premium of around £5,600. In view of this step, it was also resolved that members' subscription rates should be increased by £1.00 in order to provide the funding of this extra commitment.

Will you all, therefore, note that as from June 1st 1979, the annual subscription will be increased by £1.00 to **£8.50 for Individual members** and to **£11.50 for Family membership**. Following this switch of responsibility, it is hoped most clubs will feel able to reduce their subscription rates accordingly in order to keep our flying costs to the minimum.

Derek Evans  
Treasurer

## WINGS! ADVERTISING

As from the next issue, advertisements for gliders will not be accepted from manufacturers who are not members of BHGMF and whose gliders have not had papers submitted for an airworthiness certificate.

## MEMBERSHIP RENEWALS

Memberships numbered 10,726 to 10,995 are due for renewal on 1st June 1979.

## SUFFOLK COASTAL FLOATERS

A new club has recently been formed called the Suffolk Coastal Floaters. Secretary is Terry Aspinall, 9 Hillcrest, Knodishall, Saxmundham, Suffolk. Tel: Leiston 831027.

## DEVON & SOMERSET CONDORS

Will Mills is the new Secretary. His address: Palm Springs, Nomansland, Tiverton, Devon. Day time phone number only — Oakford 350.

## PAUL MARATOS

The Northampton Hang Gliding club wish to express the deep feeling of shock and loss caused by the unfortunate death of Paul Maratos. Paul was regarded as not only a good designer and pilot among club members, but as a friend who had given many hours of pleasure to members.

## MERCIAN HANG GLIDING CLUB

Please note that the Club has reorganised its committee structure and that Paul Winteringham has retired as Secretary to take on the position of Treasurer. The new Secretary is: Tony Ramsden, 45 Cedarhurst, Harborne, Birmingham 32. Tel: 021 427 5159.

Chris Freeman has been reappointed Chairman. Tel: Coventry 41684 and Site matters are being dealt with by Jeremy Byrne. Tel: Knowle (021) 5678140.

## SHEFFIELD HANG GLIDING CLUB LTD.

The Sheffield and District Hang Gliding club has been wound up and its assets transferred to the Sheffield Hang Gliding Club Ltd. The secretary of the new club is Richard Kulig, 317 Brincliffe Edge Road, Sheffield. Tel: 0742 53204.

## STOP PRESS!

A return match between Trier (Germany) club v. Briforge/Dover-Folkestone is to be held at Folkestone from June 1st to 4th 1979.

## RECENT COUNCIL DECISIONS

Main points from the Council meeting held at Newbury on 11th March were as follows:

An estimated £15,000 was needed for travel costs for the major competitions programme and Council agreed to Derek Evan's request to run two raffles for the purpose of supplementing any grants.

Roy Hill reported that a new Training Committee had been formed consisting of himself, Keith Cockcroft, Ann Welch, Jeannie Knight and Tony Tate of Avon Club.

A disciplinary hearing had taken place prior to the Council meeting, hearing complaints from Dunstable Hang Gliding club against John Sharp for breach of club rules. John Sharp signed an undertaking to abide by club rules in future.

Alan Barnard's resignation as Technical Officer was received.

The first meeting of the new council was held in London on 29th April. Garth Thomas's resignation from Council was received and Council co-opted Rob Stokes as a full council member with specific reference to his skill in airworthiness. Diane Hanlon and Percy Moss were asked to work with council on sites and clubs.

Jeff Marvin subsequently resigned from Council because of lack of time and his replacement will be considered at a future meeting.

The BHGA Airworthiness scheme for hang gliders currently in production will be fully implemented by 1st August. All manufacturers are required to submit necessary documents by 25th May.

A members' event will be held at Mere during the early part of September.

Keith Cockcroft was given special responsibility for towing and Council emphasised BHGA's intention of promoting and controlling the safe development of towing.

## PRELIMINARY ACCIDENT REPORT

Pilot: Mark Hammond of Oxford University Hang Gliding Club.

Experience: Recent pilot badge status.

Glider: Vortex, prone.

Date: April 28th, 6pm.

Site: Coombe Gibbet.

Injuries: Very severe internal injuries involving eight hours' surgery.

The pilot was advised by Roy Hill of the flying conditions, which were then good with 20-

22 mph wind. The accident occurred later in the day when the wind dropped off and good sink rate gliders were 20-30ft. above the hill.

The pilot was half-way down the hill when he appeared to tip stall and rotate into the hill hard.

Preliminary conclusions were that this could be another case of an intermediate pilot confusing airspeed and groundspeed in marginal conditions.

### POWERED HANG GLIDING CLUB ACCIDENT REPORT WAS NOT OFFICIAL

BHGA, its Council and Accident Investigation Officer do not necessarily subscribe to the views expressed in the British Powered Hang Gliding Club accident report published in *Wings!* No. 3, that the glider was structurally weak.

The Department of Trade is still investigating the accident and an official report will be issued when their enquiries have been completed.

## TRAINING COLUMN

### 360 degree Turns

This month's column deals with 360 degree turns — a manoeuvre that should not be attempted unless huge reserves of height are available, and unless the glider is well out and away from the hill.

Once in position, pull on some speed, move well over to the side, push out as the nose begins to drop while centralising yourself on the bar. Very often the centrifugal force of the turn will centralise you without you realising it.

It is essential to avoid a stall in the first half of the turn, so pay a lot of attention to your airspeed. The correct procedure is as follows:

1. Look around to check the airspace is clear.
2. Pull on speed.
3. Apply roll.
4. Push away proportionate to the speed increase.
5. Trim speed by adjusting roll. Trim bank angle by adjusting push.
6. Roll out.
7. Return to straight and level flight.

The manoeuvre should be a continuous movement. A perfectly made 360 degree turn can lose as little as 30ft. — but a bad one can cost you up to 400ft.

So remember — plenty of height (around 500ft.) and a position well out and away from the hill are essential when you attempt this manoeuvre.

## THE SECRET OF LIFE

BY KEITH COCKCROFT

If you use your head before your feet on take off—

The chances are you will use your feet before your head on landing.

Please assess conditions and your experience.

Plan your flight.

Know and stay within your own limitations.

Always leave yourself an alternative.

## SUPER EAGLE '79



Brian Wright taking off at Bossington. Photo Eclipse Hanggliders

### ARE YOU HEADING FOR A STALL?

Seventy-five per cent of all accidents are caused by pilots failing to maintain sufficient airspeed. At the time of going to press, Mark Hammond was fighting for his life after stalling at 30ft.

**DON'T THINK IT CAN NEVER HAPPEN TO YOU. IT CAN.**

*Free Flying at Beachy Head (League event)  
Photo Mark Junak*



*Bob Bailey on the Slalom at Beachy  
Photo Mark Junak*



*Top landing on spot at Beachy Head  
Photo Mark Junak*



*Brian Woods waiting to launch.  
Photo Mark Junak*



**NYLON RIPSTOP and TERYLENE**  
(P.U. coated) for sails. All weights and colours. For Hang Gliders. Hot Air Balloons. Stunt Kites. Largest retail stocks in England.

Please state your particular interest.

Immediate delivery. Safety webbings. Sewing threads, etc.

First send S.A.E. for full range of samples, before calling.

Free sewing instructions.

## Edward Barnes (wgs)

Hawksfold House,  
Fernhurst · Haslemere · Surrey · (Established 1928)

**22ft Flexiform Spirit** pulley system, attractive sail colours. 8 months old with seated harness. £315. Tel. Blackpool 886183.

**Breen 19ft Hi-Fli.** Little used, ideal for beginner or intermediate, seated harness, can be rigged for prone. £175 for quick sale. Stew Laidler, 7 Haydn Street, Gateshead (0632) 784094.

**SST 100B.** American dacron. White. Dynasoar style helmet. Seated harness. Hiway prone harness. Cross boom fairings, wind meter. Spares for A frame, cross boom and leading edges. Storage box. £400. Tom, North Shields 73067.

**Gryphon III**, this glider won the Northern Area League, and came second in the Scottish Open. Flown for only 9 months. £395. Tel. John Bridge on 077 473 3186.

**Midas E**, good condition. Blue and white sail. £290 ono. Tel. Gloucester 421366 after 6pm.

**Midas E**, all white sail, very good condition. £335. Delivery possible. For full details write to Steve Cuttle, 11 Temple Park Crescent, Edinburgh EH11 1JF.

**Scorpion A**, good condition. Light blue sail, dark blue leading edges and keel pocket. Offers to Chris on 061-796-8385.

**Wasp Falcon III.** Excellent kite for E.P.C. to intermediate standard. Soaring comes easily whether you're seated or prone. Includes seated harness and waterproof zip up bag. Only £225 ono. Phone Nick, Brighton 721682.

**Skyhook Sunspot.** Multi coloured sail, well cared for, low flying hours. With bag and prone harness. £370 ono. John Westcott, 32 Tommy Taylor's Lane, Cheltenham, Glos. Phone Cheltenham 56914 evenings.

**Moonraker 77** — 180 sq. ft. Special, to suit 10½ stone pilot, beautiful colours and excellent condition. £375. Kevin Emery, Totton 3757.

**Gryphon III** Ignore the rest. Buy the best. Really excellent condition. Best offer secures Mike Hibbit Reading 864543

**Local flyer** offers bed and breakfast in Swansea, conveniently placed for all SW Wales sites. £3.50p. Book in advance if possible. Tel: Swansea (0792) 813913. Also for sale set of fairings for Scorpion, used once.

**Electra flyer** demo gliders for sale. Crazy prices! Olympus 160, choice of two; Olympus 180, choice of two; Cirrus 3, choice of three; Cirrus 2, new, for larger pilot; Cirrus 5b, almost new. Phone and haggle. Scot-Kites, 041-649 5136 or 031-551 1075.

**There have now been** over 12 issues of *A4 Wings!* You will appreciate them even more if they are bound in a dark walnut simulated leather *Wings!* binder with gold blocking on spine and motif of hang glider on front. £2.95 for A4 (Hang Glider also fits). £2.50 for A5 (original *Wings!* and Club Magazines). Livingstone Promotions: 2 Timberyard Cottage, Herstmonceaux, Sussex.

**For Sale Hang Gliding Manufacturing Business** With existing home and export orders and designs. Tel: 061-747 4268

**Galaxy Flier Helmet** now with the new British Standard 5361. £16 plus £1 p&p. Frank Acton, 53 Royston Park Road, Pinner, Middx. HA5 4AB. Telephone: 01-428 2686.

**Learn to Hang Glide** in England's most beautiful county at Roger Middleton's Cumbrian Hang Gliding Centre. Open 7 days per week for 2 and 4 day courses to Pilot One standard. Books and second-hand gliders for sale. Hiway and Flexiform Agencies. Want a Skyline? Come and fly before you buy! Pony Trekking also available. Contact:- The Cumbrian Hang Gliding Centre, Rookin House Farm, Troutbeck, Penrith. Tel: Lazonby (076883) 610.

**Glider Rider** the world's finest hang gliding publication. Up to 75 pages monthly of news, views, tec' tips, power and rigid info'. One year's subscription £14.00. All back issues available incl. Nov. American Cup and Jan. Milton Profile £1.20 each. Scot-Kites, 19 Camphill Ave., Glasgow. G41 3AU.

**Robert Ed. Bailey's** Yorkshire Hang Gliding Centre. Booking now for '79 season beginners' courses. Agent for Hiway, Wasp, Skyhook, Flexiform. Test fly the latest models. Part-exchange your old glider. Used gliders for sale. Parachutes, varios, altimeters, compasses, helmets, etc. in stock. 2, Denton Ave, Leeds 8. Tel: 662518.

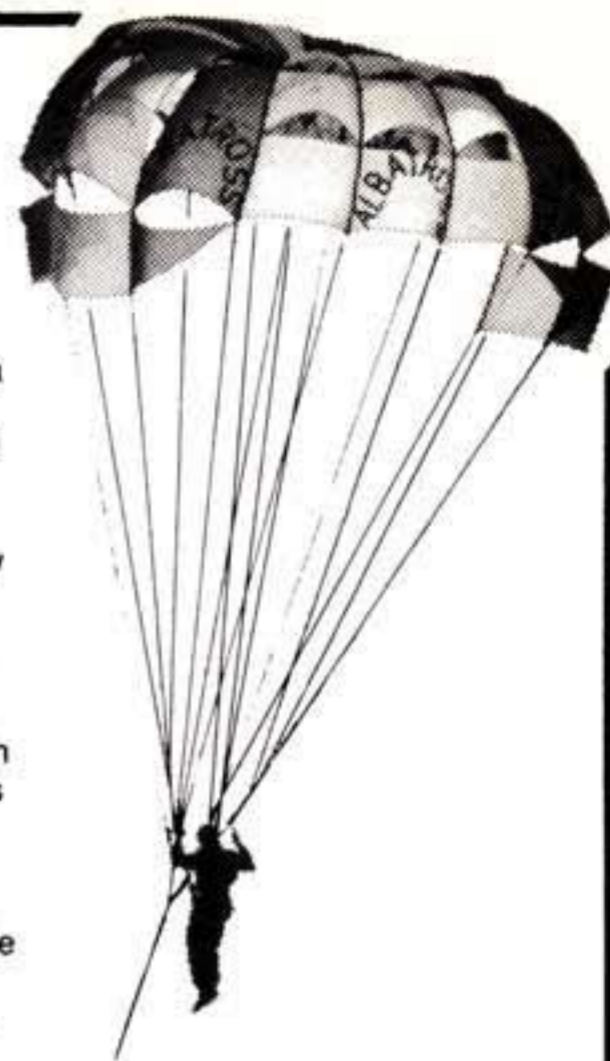
## AIRBORNE WITH EASE

The Paraglider Mark 8 is a purpose built ascending, slow descent parachute glider. It will fly with stability in winds from 0-30mph, altitude range 50-2,000ft. Airborne after a few paces forward. Particularly suitable for prolonged flights, with tow driver keeping pilot airborne by tacking or circuit towing. Equally suitable for high released flights, the Mark 8 has a slightly slower performance than a deployed sport jump parachute.

It is gentle enough to fly the family and has enough lift for dual kited flights. Each Mark 8 has a revolutionary quick releasing fully adjustable bucket seat harness, with dual flight attachment points. The Mark 8's low drag makes towing behind motor boat equally as easy as land vehicle. The equipment weighs 20lbs and packs into a small kit bag.



Trowley Bottom Farm,  
Trowley Bottom,  
Flamstead,  
Herts.  
Tel: Luton 840196



## PARAGLIDING SCHOOL

Open to the general public for one and two day flying courses, single or group bookings, mixed classes, small groups, each pupil spends plenty of time in the sky! Bring the family for a flying visit to the countryside!

Send for our free illustrated booklet on Albatross Paragliding and other Albatross aviation services and products.

**Instrumount** — Vario mounting stalk — fully anodised "Kick up" feature — secure and instant fixing — £9.95 inc. VAT & postage — Mainair Sports. Before you buy a vario from anyone ask about repairs and back-up service and don't be fooled — buy with confidence — contact Mainair Sports.

**Wills Wing** — Colver Soaring variometer and Chad AVT flight deck — Price Prone Harness and a great deal more — Mainair Sports — Rochdale (0706) 55131.

**Pellet Variometer** — We are the UK Agents for Makiki Electronics — self-contained variometer model 2 is only 4in. x 5½in. and weighs 15ozs. — just as sensitive as electronic variometers — £36 inc. p&p/VAT — money back guarantee — Mainair Sports.

**Windhaven** — Mainair Sports are the UK Agents. Send a 9p stamp for a copy of their catalogue.

**Interested in Towing?** Now available, compact, lightweight, powered tow winches with limited line tension. Safari Tow Gliders using unique retractable three point towing system. Details from: Skyhook Sailwings Ltd., Vale Mill, Chamber Road, Hollinwood, Oldham, Lancs. 061-624 8351.

**New Parachutes.** Strong, compact, low sink rate, single handed "Throw Away" deployment. Competitively priced. Phone or write for details, Skyhook Sailwings Ltd., Vale Mill, Chamber Road, Hollinwood, Oldham, Lancs. OL8 4PG. Telex 667849. Tel: 061-624 8351, 681-5045 or 5369.

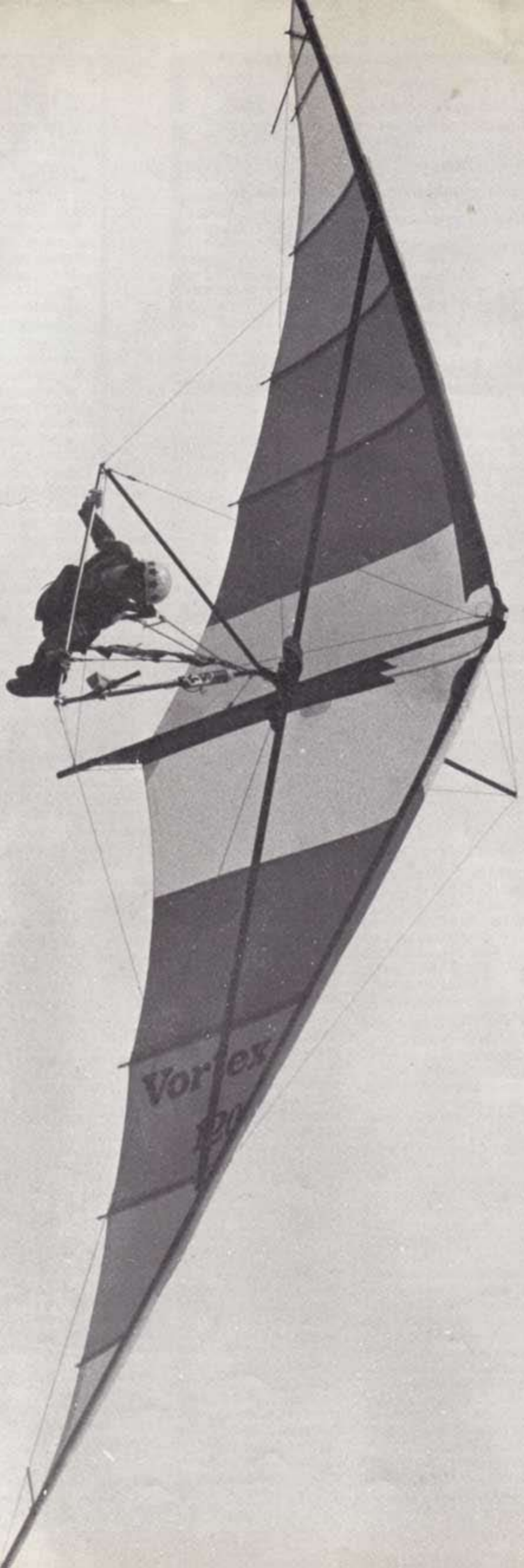
**Hang Gliding Magazine** and **Glider Rider Magazine** — keep up-to-date with a Mainair annual subscription — £13. For your Mainair Accessory Catalogue — send large s.a.e. — Mainair Sports, Shawclough, Rochdale, Lancs.

£12 surface mail — approx 8 weeks;  
£16 Air Mail — approx 2 weeks"

**Bell Helmets.** Just arrived from the U.S.A. these world famous helmets afford the greatest protection, although allowing excellent hearing and vision. Sizes 7½, 7¼, 7¾ white. £30 inc. p&p. Speedwell, 75 Church Street, Radcliffe, Manchester. 061 723 4774.

**Small ads must be limited to 35 words. Personal ads are free to BHGA members. Non-BHGA members or commercial small ads will be accepted at a cost of 7p per word. Send to the Commercial Editor, Lesley Bridges, with a crossed cheque or postal order for the correct amount (minimum charge £1) made payable to the British Hang Gliding Association. Copy date is 1st of the month PRECEDING publication.**

# The advanced Vortex 120



The choice of both **Champions** and **Newcomers** to the sport.

**The versatile, forgiving, top performer**  
for £465 inclusive of VAT and bag

**Chargus Gliding Company**

Gawcott, Buckingham

Telephone Buckingham 4321