

# Wings!

THE OFFICIAL MAGAZINE OF THE BHGA

JANUARY 1981

JAN 81  
Whitcraft  
geographics



A British  
World Champion in Japan?

Who's going  
to migrate this Autumn?



League-  
on target for performance?

Double surface -canard next?



Trikes-boom or bust?

Bob Calvert-  
will he make it a hat-trick?



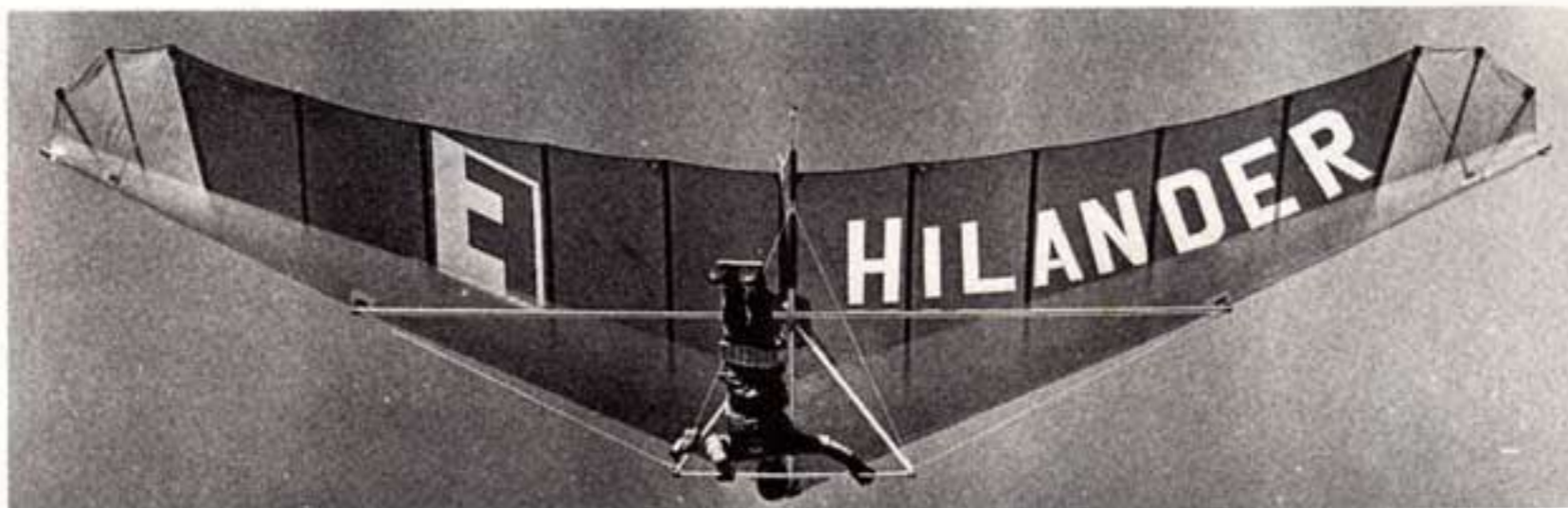
The In-laws, reconciliation-  
or more Dunstables?

Good Flying in '81!



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WINGS! may be obtained regularly by joining the BHGA, or on a subscription of £10pa in the UK. Those outside the UK are requested to send Sterling International Money Orders - £12 (surface mail) or £22 (airmail) for an annual subscription. Details of membership will be sent on request. IN ALL CASES WRITE TO TAUNTON. Wings! is published by the British Hang Gliding Association. The views expressed in it are not necessarily those of the BHGA Council, its Officers, Members or the Editor.

Contributions are welcome. Articles should be typewritten if possible. Photographs and cartoons should be accompanied by the appropriate captions, and any material which is to be returned should be accompanied by a stamped and addressed envelope.

The Editor reserves the right to edit contributions where necessary.

If members or subscribers change address, or copies of Wings! do not arrive, please contact the Membership Secretary at the Taunton Office. In all correspondence give your full name, address and MEMBERSHIP NUMBER (if applicable). Please give five weeks notice for changes of address if possible. If you, your club, or any local hang gliding activity gets written up in a local paper, national paper, or magazine, please send a copy to the Taunton Office for the BHGA Press Cuttings collection. This applies to the UK only.

## MILTON'S MIGRATION RULES

The idea that one day hang glider pilots could migrate south with the great birds has grown since getting an airing in March, 1980 Wings! In France, the editor of Vol Libre, Hubert Aupetit, has run an article in the January, 1981 issue, on migration habits of the big birds. And in the USA, the Cross-Channel ace Bryan Allen, hero of Gossamer Condor and Albatross, is keen on making it work in North America, and spent one evening at the American Cup plotting the rules. So, what about openers?



1. **Length of Flight** - Should follow migration pattern, from latitude 51°N to 10°N. The northern limit, 51°N, in Europe is just south of London, north of Cologne, about level with Dresden, and south of the Central European summer nesting-place for most birds. In North America, 51°N is north of Vancouver, which is a bit of a tall order. The southern limit, 10°N, is north of Addis Ababa, south of Kano in Nigeria, and about level with the Horn of Africa. In North America, 10°N is just a little above the Panama Canal, and about level with Caracas in Venezuela....another tall order. In Europe, that's the distance covered by a big migrating bird in the Autumn, on one of the two used routes, via Gibraltar and the Western Sahara, or via Israel, Egypt and the Sudan. A crude measure of distance between latitudes is just over 2,600 miles.
2. **Duration of flight** - Should not exceed 120 days, which is just 4 months, and an average Southerly drift of 22 miles a day.
3. If you come down on a flat plain, or wherever, you **must launch from where you land**, or go back over your previous route to find a launch point. All launches must be by foot, and no launch may be by winch, or with the use of any kind of engine.
4. You may only use **one glider**, though it can be extensively repaired.
5. Fliers are expected to take all sensible steps to certify their flight, and are also expected to conform to the **sporting spirit** of the challenge.

Brian Milton





Dave Jones - photo Mark Junak

## DAVE JONES DEATH SECOND BRITISH POWER FATALITY

On Sunday, December 21st, Dave Jones, one of the best trike pilots in Britain, was killed after a series of wingovers on his combination Hiway Trike/Solar Storm at Bovingdon Airfield, headquarters of the London Ultralight Flight Centre, of which Dave was a director. This was the second death in Britain on a powered hang glider - now known as microlights - nearly 2½ years after Nick Lawler's death in May, 1978, the subject of last month's Wings editorial.

There's to be a full investigation involving the AIB, and the BHGA's Accident Investigation Officer - John Hunter - went immediately to the scene of the accident. There will be a full report in time, and what follows is journalistically correct, but must not be taken as the findings of an official investigation.

Dave Jones, who was 30 years old, was a 1980 League pilot, but he dropped out halfway through the year to concentrate on his microlight interests, setting up in partnership with Clive Smith (BHGA Technical Officer), and Dave and Kay Simpson, whom regular readers of Wings will remember were married early last year after Dave proposed to Kay on a dual flight 500 feet over the Long Mynd.

Dave Jones was an agent for the Solar Storm, and on the day he was killed, he was flying a big new Storm with a Hiway trike, a combination he'd flown often enough before. He was noted as a cautious hang glider pilot, but was much more adventurous with the trike. His aerobatics at Clubman's Mere in September

with a similar combination, in which he appeared to do 140° wingovers with great panache, were the attraction of the event.

According to John Fack, who was a witness to the fatal accident, the combination had already been flown at least three times that day, twice by Clive Smith and once by Dave Simpson. Dave Jones then flew, and just after 3 o'clock in the afternoon, he did a number of wingovers. Two were about 70° at around 400 feet, and then there was a very radical one of about 120° which left Dave facing downwind at about 200 feet. He looked to be preparing to turn in to land when he made another wingover, apparently to come into wind. Halfway through ("He may have stalled in his own prop-wash, which could have caused the side-slip" according to John Fack), he stalled, side-slipped, started to luff, rotated the nose, and then the right wing distorted. It's thought the cross-boom broke on the right wing, and the left leading edge between nose-bolt and cross-boom. The aircraft went nose down, about 60° or 70°, and with power still on and Dave continuing to push out all the way down, it spiralled in from 200 feet. Dave was killed instantly.

Initial comment about the accident from those who were there, was that Dave took the combination well outside the flight envelope it was designed for. The Storm, a BHGA-approved hang glider, had 2-inch leading edges and cross-boom, and was noted for its strength. The Hiway Trike, with a 250cc Robin engine, is probably the most widely-used and reliable such unit in the country, and has been fitted to a number of hang gliders with great success. The results of the investigations will be noted with great interest.

## NEW MEMBERSHIP CARDS

From this month BHGA members will be receiving a new type of membership card, as and when members join the BHGA or renew membership.

Benefits of this card are:-

- It is practical
- It is water resistant
- It is durable
- It gives far more information about the owners flying ability
- It is attractive
- It gives credibility to the owner and the sport

Less obvious, but possibly more important, is the intrinsic value of the image we display to people outside our sport. The card will show that we are becoming more professional in our approach and really trying to encourage our members to become rated pilots, instructors and observers, carrying the responsibilities that those awards place on us. Members wishing to fly in Germany/Switzerland etc may find that access to sites are easier to obtain on production of this new card

for the simple reason that it looks impressive.

All good things have disadvantages and one problem that the new card raises is that it can only state the owners flying capabilities as they stand at the time that the card is issued. Obviously, some members during the year will become instructors, observers or upgraded flyers, those members can return their original card to our H.Q. and have a new one issued. One member has already asked if he can be issued with two cards because he has two sets of flying overalls. The answer is YES. It should be noted that the issue of an extra card, or replacement will cost the recipient 70p, this includes VAT, postage, card cost and handling charge.

I wonder how many of our members know that the AGM is on 7/8 March 1981, at Warwick University. We may be organizing a disco and basket meal on the 7th. More info in next WINGS!

Barry Blore

BRITISH HANG GLIDING ASSOCIATION	
PILOT RATING	
INSTRUCTOR RATING	
OBSERVER	

## FRENCH CERTIFICATION

F.F.V.L.'s technical committee has set up a certification system for France. While French test vehicle is not ready (scheduled for beginning of '82), it has been decided to use Moto Delta designer Jean-Marc Geiser's test vehicle to gather necessary data.

Stability criterions will be pro-

posed by Claudius La Burthe, who has conducted a wind-tunnel study of Rogallos for the French Government in 77-78; they will be based on his results, and measurements on this very vehicle. Mr. La Burthe thinks that this will avoid gauging problems between his wind-tunnel and the test vehicle, and more generally that this should be systematically done as two different test vehicles do not give identical results for the same measurements.



## PAUL VAN HOF

Sad news from Australia from Ian Jarman, who writes that Paul Van Hof, one of the 1979 Australian team at the American Cup, was killed in the first round of the XC League which he himself had set up. Ian doesn't go into details, except that the competition was in Southern New South Wales. Ian himself is coming to Britain in 1981, and with an instructor rating from the USHGA and the Australian Association, he's hoping for a job in one of our schools, or manufacturers, and asks if we can help. Ian was highly placed in the 1980 Bishop XC, leading for a number of rounds until one bad flight slipped him down the order, and he expects to guest-fly the National League. If anyone has any jobs leave news with B. Milton. He should arrive in March, and would probably welcome bed space around the country.

## NEWS FROM SOUTH EAST WALES

### MERTHYR COMMON

Will fliers please park their cars on the tarmac access road behind the take-off point, and not on the gravel or grass between the road and the front of the hill? The area has been sown during the summer and the graziers want to give the grass a chance to grow. This means that you park your car and carry your kite all of 200 yards to the take-off point! It has the added advantage of making landing very much easier — you don't have to dodge the vans and cars and the rotor they generate.

### CWMPARC — REPEAT FROM "WINGS!" NOVEMBER 1979

The grazier Mr Pugh has taken the unprecedented step of purchasing the entire mountain-top in order to secure his privacy against, amongst others, hang gliders. Very delicate negotiations have secured a limited agreement with Mr Pugh for the site to be flown on certain occasions by a small group of local fliers known to him. He is adamant that no-one else shall fly here — **please keep away**. It is possible that if we are able to show ourselves responsible, permission might be extended. If not the site will be entirely lost.

During the last two months some people have abused this agreement and upset Mr Pugh. We hope that three year of negotiations haven't been spoilt by these inconsiderate people.

### BLORENGE

You are strongly encouraged to leave your car on the road and walk to the 'front' of the hill. The Beacons Park wardens are very anti about cars on the hills. It is also against the law. This notice applies to *everyone, including Colin Lark!!*

## FLYING DUCKS

by Diane Hanlon

Unless your name is JC, don't fly over water without having a definite landing area, a costly lesson learned on the East Coast recently.

I fly coastal sites, so I'm well aware of the fact that even on the most perfect day conditions can change very quickly. Although it's easily recognizable on the hill, you can become so absorbed with the flying that it's only when you have difficulty penetrating, or considerable height has been lost, that you accept the fact that you're not going to make a top landing.

I wouldn't fly a coastal site without a bottom landing area somewhere nearby, and only experienced pilots should use these sites when the tide is in and the landing limited.

Having said all this there are pilots who will continue to fly and accept unfavourable circumstances. Consequently, I feel I must remind you of a few tips:—

1. Don't use a screw-gate carabiner (if you do, leave the screw-gate unscrewed).
2. Fix a sharp knife to the X-boom where you can easily reach it.
3. A fiver spent on filling the tubing with polystyrene foam is well worth the money spent if you fly coastal sites regularly. (contact Strand Glassfibre, Brentway Trading Estate, Brentford, Middx, 01-568-7181 to get the foam).
4. Wear a life-jacket, but delay inflating it until you are clear of the hang glider.
5. In rough conditions it may be wiser to land in deeper water away from the currents that can buffet you so violently close to the shore.
6. Land well away from the bottom of cliffs and rocks.
7. As far as possible (without ignoring flying speed), prepare yourself before you hit the water. Discard scarves and gloves and loosen bootlaces — it's very difficult to loosen them once you hit the water. Don't take your boots off until you are in the water, because you may land on rocks or the water may not be as deep as you thought it was. Don't take off your helmet, as it helps your body retain heat.
8. Be aware of your own ability (or disability, as the case may be).

Last, but not least, regardless of where you fly, don't accept more than one risk at a time. If you don't know the site make sure you know your glider, and that the conditions are perfect. If you're not used to the glider, or the flying position — seated or prone — then only fly if you know the site and conditions are right.



**CALLED YOU CONTEMPTIBLE DID THEY?  
THEY'RE CALLING US FOOLS...**

## HORCUM HORRORS

A bitter wrangle over flying rights at the North's major training site has been settled.

But it will take a long time to make good the damage to hang gliding's public image caused by ill-informed comment by councillors, journalists and even Defence Ministry spokesmen during the dispute.

"Flying fools", was the title lent to hang glider pilots by one local hack on the basis of bar room chatter with RAF flying pupils.

And comments from the Ministry of Defence about flying from the Hole of Horcum seem to have been deliberately worded so as to imply — falsely — that gliders are using restricted air space.

But the real row was between the George Cayley Sailing Club — main club users of Horcum — and the North York Moors National Park, its owners.

The Hole of Horcum is at the head of a faulted valley north of Pickering which offers faces for most winds in a series of 35ft. bowls separated by spurs and a longer 150ft. north-facing ridge at its reverse side.

Although once the site of the British National Championships some years ago, Horcum is relatively little used as a soaring site because it becomes extremely turbulent in anything over 18mph winds, but it is used regularly by three hang gliding schools — Rick Ware's Northern Hang Gliding Centre, Bob Bailey's Yorkshire Hang Gliding Centre and Windlord School of Hang Gliding.

Its usefulness lies as much as anything in the fact that novices and experienced pilots are not usually fighting for the same ridge space.

Agreement for the continued flying of Horcum was reached after a National Park Committee ultimatum giving George Cayley two weeks to concede its terms or the site would be put out to tender to anyone willing to police flying there.

The club eventually agreed to pay the £175 annual rental fixed by the district valuer and backed down on its insistence that members be allowed to continue to fly the hole's west face, the home — claims the committee — of rare vegetation.

But it does not concede the committee's claim that planning permission is necessary for flying. This year's row began with the expiry of previous planning terms fixed by the committee itself.

The club can now expect to recoup a good part of its costs by sub-letting site use to the three schools.

The horrific Press coverage of the row prompted officials of both the Cayley Club and the neighbouring North Yorkshire Sailing Club to issue statements correcting false statements.

Horcum lies within the North Yorkshire area of intense aerial activity marked on low flying maps in which civilian activity — including hang gliding — is not restricted. This fact is at odds with the published defence ministry view that hang gliding activity over 250ft. above ground is "disturbing", and in restricted airspace.

The site is now marked as a hang gliding ATZ on air maps. **Stan Abbot**



## LIBERTY, EQUALITY AND FRATERNITY

Dear Sir,

I refer to the article by Lionel Alexander of the British Gliding Association in the November edition of Wings! I cannot agree entirely with some of the points, nor the way in which they are made. For example, in his second point the phrasing might have been better had it read "glider pilots in general, and now the BGA, are committed to the principle that the air is free for all to enjoy". I have no doubt that the vast majority of glider pilots have always taken this view but judging by the advice given by the BGA to all Clubs prior to the amendment of Rule 34 that it could and should be used to ban hang gliding, the same does not seem to have held true for some of its officials.

Nit-picking notwithstanding, however, in general I felt that the article in tone and content amply summed up the situation. In fact, with only minor amendments it could well have been an article of the BHGA and I can only suggest that Mr. Alexander has submitted it to the wrong magazine and that it was, originally, meant for inclusion in "Sail-plane and Gliding" as an indication of the BGA's attitude to the conflict. If this were the case, I would suggest that, prior to publication, certain of the lines in the article be underlined in order to more readily draw them to the attention of the Gliding Clubs with whom we are, presently, having problems. For example, "an understanding of Rule 34, amongst other things, is essential to any organised aeronautical activity"; "if I cheerfully blunder into the ATZ of an aerodrome used for general aviation with my glider and ignored the local rules I shall deservedly get into serious trouble" – a hang gliding site also has an ATZ. "Make your watchwords; be well informed; safety conscious; courteous and moderate in your demands."

G. S. Stapleton  
North Yorks Sailwing Club

## VOICE OF THE PERSON

Dear Sir,

Reading the October edition of Wings!, I am moved to make several criticisms. Apart from too much dwelling on competitions and people's personalities, I believe there is a more important deficiency in the quality of Wings! under the editorship of Brian Milton.

Firstly, to highlight the example which decided me to write in, the first section of "Icarus Allsorts" hypothesis that it must be "galling" for Steve Hunt to see preformed

battens on Hiway gliders. So what if it is? It is not our business and it reads like pure speculation, anyway.

One is inclined to think that Brian Milton is taking advantage of his position as editor to score a point in a duel of oneupmanship with Steve Hunt. This may not be the case at all (the article may not even have been written by Mr. Milton, it is unsigned) but the fact that it can easily be interpreted this way is a bad thing. We all know that people tend to join in with what they think will be the winning side in any conflict or argument (usually the established system or the majority view) and attack the person who puts forward a criticism. For example, John Davies writes (in a style of "telling off" Richard Gibbs, following Mr. Milton's own style) "I hardly think you are in any position to criticise the League..." The fact is that if a bug-eyed monster from Mars, or even a non-flyer, criticises the League, his criticisms are either valid or not depending entirely on the facts and logic of what he is saying.

My point is this: it is the editor's responsibility to ensure that Wings! is a worthwhile collection of articles and news, with the solutions to controversial issues being arrived at by the discovering of the relevant facts and arrival at the solution by reasoned argument. After all, that is how human beings achieve things that other animals don't. The editor has to be responsible in what he writes himself and edit articles and letters to ensure a similar standard throughout the magazine. You don't learn anything by yelling at people (or the written equivalent). If Wings! continues in its present style, flyers will in the end give up any idea of contributing to Wings! in any way that is critical of the BHGA establishment, for fear of getting on the wrong side of Mr. Milton and being the target of these personal attacks that appear in the magazine these days. Take a look at the USHGA's magazing "Hang Gliding", its quality does not just stem from colour pictures. This is a problem of society as a whole, maybe we can't do much about that but we can do something about it within the BHGA. Brian Milton must change his editorial policy or we need another editor.

Everard Cunion  
Christchurch, Dorset

## WE SHALL FIGHT THEM ON THE BEACHES

Dear Sir,

Why are distances covered by hang gliders or height of hills given in Km? It cannot have escaped your notice that distances in this country and the USA are measured in MILES and

height of hills etc. in FEET. I am sure that the majority of the readers of Wings! – even the elite, about whom most of the articles seem to be – can visualise a hill of 1,000 ft much easier than 330 metres. Also varios seem to be in ft/min.

If we are to Back Britain, why not write in English (England being part of Britain).

H. Crosswood  
Congleton, Cheshire

## RECORDS GEORGE COMMENTS



George Worthington – photo Bettina Gray

In the Oct. 1980 issue of Wings, in the section entitled "Icarus ALL SORTS", there is the following statement. "Strong feeling against the strictness of the FAI in judging record flights.....there's not a shred of doubt Peter flew over 68 miles .....sophistication of the sailplane world.....are we really going to be left choosing record holders on the quality of their paperwork?"

First let me say that I sympathize with the comments above. These are the things which are said in America also. However, let me make some observations.

The procedure in the case of a straight distance flight, like Calvert's stunning flight, is very simple. Get your barograph signed and sealed before the flight. Get witnesses for your landing to verify where and when you landed. That's all. That is not really too much of a requirement is it?

If a barograph isn't carried, the FAI won't certify. Carry a barograph on all flights. It's fun. The traces make a great record of your flights which can be studied and compared years later. You will learn new extra details about cross-country flying. You'll become a better pilot.

If any record of any kind for any sport is going to be meaningful and believable, it must pass a certification process conducted by a distinguished organization. If you don't

do that, you have meaningless chaos. Example: the world's longest flight in 1979 was probably Joe Greblo's 80 mile flight in the Owens Valley Classic instead of Peter Brown's 81 mile flight near Chattanooga. Peter made an honest mistake in measuring the distance. When it was measured again, later, it was found to be 79 miles. But the word was already out that it was 81. Nobody wanted to hurt Peter's feelings, so no one, including Peter, said anything, and besides, how do we know Greblo's flight was 80. Maybe it was really 78. Larry Tudor's flight on July 21, 1980, was reported in writing to be 108½, 111, and 113. Which do you believe? The point is this: Do we want 3rd party official verification or do we want chaotic rumor? I could go on and on, and explain about a dozen other long distance hang gliding flights, which were supposedly of a certain distance, but which in fact were not. And in every case, that I know about, the pilot who flew the flight was not trying to cheat. His over-enthusiastic friends were the ones who unwittingly exaggerated the real distances.

Finally, we really must ask ourselves if we want our image to improve so that we will be more readily accepted by the sailplane people and the public at large. Records are an intrinsic part of the hang gliding scene. They are here to stay. If we can think and act more professionally concerning records, maybe such professionalism will carry over to some of our other thinking and actions, with the end result that we'll have an image that we can be more and more proud of.

George Worthington  
San Diego, Calif.

## CAMPISIE

This excellent thermal site lies precisely under the centre-line of Glasgow Airport runway 24. Since the site takes 200°, conflict with airliners on ILS approach is not merely possible, it's probable. I know of no other site in the UK where a similar danger exists.

XC flight is not recommended or encouraged: nor however is it banned. With the approval of the CAA, hang glider pilots may go XC, subject to prior application to the Safety Officer of the Scottish Sailwing Association. The conditions which will be required are stringent, and include a check flight, considerable expertise, 100 km of XC, air-band radio, an immaculate safety record and a known reputation for responsible flying. Full details will be published in the SSA Newsletter.

The danger at Campsie comes with altitude. Any pilot not checked out for XC should stay below the TMA base.

Please act accordingly.

Ian Trotter,  
Scottish Sailwing Association



# ICARUS ALL SORTS

.....by the time you read this the manufacturers competition will be over and we'll all be considering the results, but a week beforehand there's unbelievable interest in the contest. It looks like teams are coming from **Hiway** (Demon), **Southdown** (Lightning), **Solar** (Typhoon), **Skyhook** (Sabre), **Airwave** (Comet) and possibly **Flexiform** (ESP). Rumour has it that **Graham Hobson** will field a La Mouette teams, but nothing has been heard from **Chargus**, which is said to be concentrating on powered trikes.....

.....favourites to win the manufacturers competition, if we had a bookie, should be Southdown, with a really strong team in **Bob Calvert**, **Keith Reynolds** and **Mick Maher**. No matter how much the competition emphasises performance, having the present and past National Champions in your team has got to give you an edge, on top of a good performance hang glider. Solar have plumped for **Johnny Carr**, **Trevor Birkbeck** and **Keith Cockcroft**; Hiway for **Graham Slater**, **Jo Binns** and **Alan James**; Airwave for **Robert Bailey**, **Jim Brown** and **Andrew Wilson**. Skyhook will certainly have **Mark Silvester**, and Flexiform, if they're in, will plump for **Geoff Ball** and possibly **Sandy Fairgrieve**. **Bob England**, the Demon designer, misses the competition because of an operation to his shoulder.....

.....as for the new kites, the **Demon**, **Comet**, **Typhoon** and **Lightning** are well enough known for fans to back them with money. What's new is the Skyhook **Sabre**, which **Len Gabriels** says has as many battens on its bottom surface as it has on the top; he may remove them two-by-two as the year progresses. Flexiform's **ESP**, one more double-surface hidden-X-bar machine, is said to have as much as 18 inches between its top and bottom sail surface, surely an exaggeration? Still no news from abroad, though **Vol Libre** trailed the competition.....

.....sour comment, OK?.....some events have a revolutionary effect on hang gliding design. The World Championships in Kossen, 1975, totally changed the way the rest of the world, outside the USA, built hang gliders, after we all had a look at the UP Dragonfly and the Wills Wing Swallowtail. The British Nationals at Pickering in early 1976 introduced the **SST** and **Phoenix 6B**, which spawned so many British gliders, and later that year, **Bill Moyes's** visit to the Open at Mere with his full-battened keel-pocket "Stingers" introduced the **fourth generation** of gliders, of which the greatest is probably the **Atlas**. The World Championships at Grenoble established the **Atlas** and sent it around the world.....the point of all this is that some events are seminal, they really matter, and one such event was the 1980 American Cup, which fertilised the designs of Australian, French and British gliders with the **fifth generation** thinking of the UP Comet. Reading **Vol Libre**, and **Wings!**, you'd know something important has happened. Reading **Glider Rider** and **Hang Gliding**, with what can only be described as a shallow account of events in Tennessee last October, it's easy to understand why the Americans are periodically shocked when foreigners beat them. There's more excitement now about hang glider design than there's been for years, since 1976 in fact, but you'd never guess that from reading the American magazines. I wonder, genuinely wonder, why?.....

.....congratulations to **Dave Harrison** for the integrity and consistency with which he's monitored the XC League in the last year. Watching the battle between **Robert Bailey** and **Peter Hargreaves** for the top place - Robert just pipped Peter, who

couldn't improve on a "poor" 3rd flight of "only" 18 miles - it's been a revelation. It's sad that **Bob Calvert** didn't enter his results. But **Dave Harrison** has been scrupulous about keeping records, always met his deadlines, and as a result, as **Derek Evans** suggests, we should all call the League he founded and nurtured the **Harrison XC League**.....

.....**George Worthington**, who must be 60 years old, and who holds almost all the hang gliding world records, has been getting a proper slugging in the pages of **Glider Rider**, which started with a Wingnutz column from **Mike Jones**. Jones compared George to an old rooster, who gets up and crows before he does anything. George replied by challenging Jones to a flying competition, the loser to eat a certain amount of chicken by-product. There can't be many sports where the world record-holder set all the marks at George's age, and if he crows about it, well, he's got a hell of a lot to crow about. What pilot wouldn't give his eye-teeth to fly as well as George does at 60? For many people, that's the age they're well into grumbling about the younger generation. George doesn't grumble about the younger generation....he beats 'em, and then writes how he did it, and then he goes out and beats 'em again. Hang gliding would be a poorer place without him, and I'll be fascinated to see what happens if Mike Jones takes up George's challenge.....



.....in case you don't know him, Icarus introduces you to **Roy Haggard**, designer and inventor of the UP Comet, who has all the reason in the world to be smiling. Roy Haggard has been one of the 12 designers in the world who have radically changed hang glider design - others include **Bill Moyes**, **Dick Boone** and our own **Miles Handley** - and Roy has now done it twice, which must put him close to Moyes. Back in 1975 Roy's **Dragonfly** just blew away everyone at the first World Meet at Kossen in Austria, with its clean sail and truncated tips...one was still being seriously flown in Tennessee in 1980, by a good pilot. Roy's second big jump, the introduction to **fifth generation** machines, came with bottom battens in the big double-surface of the Comet, along with tip-tensioners...the technical guys know why...all the rest of us know is that it's happened...no hard feelings for the American Cup, Roy, 'cos you've set off the most exciting development in British design there's been for years. Keep going or we'll be biting your ankles.....

..... glad to see the **British Microlights** have finally settled on a sensible name as the new and independent organisation starts to grow on its own. But at least one Icarus correspondent has pointed out that a flying organisation with a **Hunt** as chairman, and **Nicky Regan** as magazine editor, bears a resemblance to an organisation not a million miles from Taunton in Somerset. It'll be interesting to see if the BMAA follows the classical growth pattern of the BHGA, though the first requirement, of course, is for two opposing directions to be espoused by two strong characters.....

..... pity the plight of **B Milton**, offered a juicy chance next August to fly to the USA, settle into a plush hotel on Lake Tahoe, commentate for two weeks on a big American competition, and even get a chance to fly himself, all expenses paid... and, even, the possibility that he might himself earn a piece of the green stuff... pity, you said? ... well, the American meet, organised by **Keith Nichols**, clashes with the British Open event at the same time, in which Milton is expected to run himself into the ground and not go gallivanting off to the USA... but please, don't ask him just yet to hand on the commission.....

..... our Brothers in Law must have been puzzled to find in the latest issue of **Sailplane & Gliding** the article by **Lional Alexander** that appeared in November **Wings!** The explanation for S&G readers was remarkably brief... "In April this year, **Wings!** carried an editorial foreshadowing a series of articles on conflicts between gliding and hang gliding... I have read four such articles to date. This is my reply, which, I hope, will appear in **Wings!**... I thought that readers of S&G ought to know what I am saying on the BGA's behalf... the responsibility for the drafting is my own." I'm sure other **Wings!** readers weren't aware that Mr Alexander was actually **replying on behalf of the BGA** to the many points raised by **Wings!** correspondents, but our hearts go out to S&G readers for the one-sided picture of the whole issue they're receiving.....

..... some of us must be rich, or at least, that's what the advertisers think. A couple of instructors in Switzerland, **Walter Schoenauer** and American **Ron Hurst** are trying to entice normally penniless hang glider pilots to a 14-day so-called Safari in the Swiss Alps, for the whopping sum of £1,000, advance payment of \$1,000 forty-five days in advance. The problem is, looked at closely, what you get for that money is transportation from the airport to hotel and flying sites, lifts to the top, your hotel (including breakfast, - but not dinner?), and an "introduction to mountain weather and flying". You supply, your own glider, harness and equipment, pocket money and insurance... and of course, you pay your own air fare to get there and back... Icarus would be interested to hear if anyone takes up this offer... meanwhile, much more reasonably priced is a month's holiday called **Bachelors Abroad** which offers a month in the Phillipines for tow-launches, where "thermal and orographic lift abound... a really superb beach with all facilities, not to mention the hundreds of gorgeous Philipina girls" **Graham Nock**, who runs such holidays, says that for less than £1 you can get four beers, 20 Marlborough cigarettes and half a pint of light Tanduay rum, and still have change... and the cost, **from London**, from £499 to £698, depending on the season... Icarus might let you have the telephone number in Birmingham for a small consideration, or else an advertisement from Mr Nock.....





## DUNSTABLE BANNED

Following years of hassles between the **Dunstable Hang Gliding Club**, and the **London Gliding Club**, Dunstable Downs is now banned to hang gliders, under a bye-law brought in by Bedfordshire County Council, in which effective control of flying was given to the sailplanes. Regular Wings readers will remember the Dunstable case in the **Brothers in Law** series (August, 1980); a number of officials at what is considered the premier sailplane club in Britain have been insisting on hang gliders conforming to rules agreed between them and a DHGC Secretary years ago, one **David Yule**, restricting hang gliders to under 100 feet above the top of the ridge, and 50 yards out....Bill Lehan depicted it as a cage. There was an uneasy peace between sailplane and hang glider until an incident last year, in which an experienced hang glider pilot, **Chris Ellison**, alleged six consecutive near misses by a sailplane. As any pilot might do, Chris lodged an official complaint, and regular observers of the relations between hang gliders and sailplanes say that this complaint led to the ban. There are rumours that, if the official complaint is withdrawn, ways might be found to "allow" hang gliders to fly Dunstable Downs again. Meanwhile, Dunstable HGC takes no responsibility for any hang glider pilot who flies Dunstable, while the present dispute is unresolved.

### WANT A GRYPHON?

Towards the end of 1979, there was a serious accident at Steyning Bowl. **John Korotki** suffered severe spinal injuries and is now confined to a wheelchair. His glider, a Gryphon 180, made by Waspair suffered only minor damage in the accident.

At the request of the police, John's family asked **Tony Fuell** to remove the glider from the police station after the official investigation had taken place, and to try and sell it for him, since it was clear that John would have no further use for it. Despite several advertisements in WINGS! and the SHGC magazine WINDSOCK, no buyers have been found.

Tony urgently needs the garage space, and John is willing to sell the glider for a fairly nominal sum. The Gryphon is a high performance machine, not really suitable for novices. This particular one was flown in the League in 1979, and performed very well. It might suit a University Club, or someone who wants to move on to a more advanced machine at a very low cost. The damage is mainly to the control frame, which could easily be replaced.

Please, if anyone is interested in taking this glider, would you give Tony a ring (0273-502952)? Even someone who'd be prepared to restore it to flying condition, or cannibalise it for spares would be welcome, and it would help a fellow pilot who's fallen on hard times.

### NOVEMBER MEMBERSHIP

No brilliant news about membership figures towards the end of the year, always a bad time. There are more who didn't renew this year than in the previous 3 years (see elsewhere for why some didn't). The renewed figure is the best ever for November, but only just so, while new members have dropped badly. We have more members than last year, but the growth, which looks higher than usual, is boosted by affiliate and family members.

November	1977	1978	1979	1980
New	141	142	119	78
Renewed	120	159	182	184
Not Renew	114	102	119	147
Total Members	3,482	3,652	3,703	3,950

### INSURANCE COMMENT

— **Bill Cowell**, in last November's WINGS!, writing about the effects of badly injuring his arm, made some bitter comments about trying to get insurance payments. **Reggie Spooner**, who has handled BHGA insurance since the Association began, wrote in to reply to Bill's comments.....

....I write personally, and I know you will understand when I say that my writing is entirely without prejudice to any legal rights that I, or others, may have.

All that a claimant under the BHGA Hang Gliding Personal Accident Scheme needs to do, if he is claiming for the loss of the use of a hand, limb or eye (at least in the first instance) is to have his own Medical Adviser certify that in his opinion he has permanently lost the use of that hand. I would then feel bound to prosecute that claim vigorously and have no doubt that it would be paid.

However, no claimant whatsoever has yet furnished a certificate from his own Medical Adviser certifying that he had lost permanently the use of a hand, or indeed any other limb or eye.

Notice has, however, been given that there may be such a claim and a reserve of £20,000 has been established in the event that that claimant's Medical Advisers consider that the use of that hand has been permanently lost.

With the permission of the claimant concerned, I would gladly make that correspondence available to you.

On the wider subject of Hang Gliding Personal Accident claims, I know it will interest you to learn that at 30th November 1980, members of the BHGA, (and their predecessors) had paid £68,748 to Lloyd's underwriters in the last seven years and that claims totalling £110,459.02 have been made.

A reserve of £20,650 is also held, (£20,000 in the event that confirmatory evidence is forthcoming in the case of the loss of use of hand, £500 in the case of a badly broken arm

and £150 in the case of a broken thumb).

It will also interest you to know that, as accurately as we have been able to establish, just over £100,000 has been paid outside of the Lloyd's Personal Accident Scheme by the traditional insurance companies in respect of Hang Gliding deaths.

You have had your own direct experience and will have formed your own opinion. (I had a claim for 5 weeks off work after my power accident. It was promptly paid—Ed). My experience in acting for over 100 of our members, when preferring their claims, is that underwriters, and the appointed Loss Adjusters have been scrupulously fair and wherever there has been doubt, have exercised that doubt in favour of the claimants. Some support of that might be gained from the fact that underwriters are so seriously out of pocket. However, that is something I will leave others to judge.

I must underline that this letter is without prejudice to any legal remedies, but I believe it vitally important that you be informed of such facts as I have readily available. As you have also always known, I shall be pleased to provide any other information that you may require.

**Reggie Spooner**

.....incidentally, Reggie would also like to hear again from a BHGA member who wrote critically about the increase in insurance rates, but whose letter went astray between Reggie's letter box and his study, where it was to be taken for reply.





## MICROLIGHTS (AT LAST) OK?

The second annual general meeting of the British Minimum Aircraft Association, the BMAA, was held at the Matrix Hall in Coventry on Sunday, November 30th, and was attended by approximately 200 people.

The Chairman, Steve Hunt, told the AGM that the two principal objects of the Association – producing a magazine (Flight Line) and establishing BMAA as the official body for minimum aircraft – had been achieved. There had been a big work-load for the committee, particularly Dave Thomas, who had not only edited the magazine, but had taken over secretarial and membership work. Steve paid tribute to Dave and Katey Thomas, and his own wife Joan Hunt. He said it'll be necessary in future to establish an office, and pay a full-time or part-time officer to handle routine correspondence.

The annual membership fee, set at £5 at the first AGM, was raised to £12 by a large vote. The Association's membership stood at 400, and a lot of growth was expected. There had been a number of noteworthy flights: four fly-ins had been held, more were planned.



Nick Regan, New Editor Flight Line – photo

A new committee was elected. Steve Hunt remains as chairman, while Flight Line will now be edited by Nick Regan, the first editor of Wings! (It's delightful to read in the BMAA's minutes that the Association will pay Nick's membership subscription as a sort of Editor's fee.... Shahs come and go, boxing idols fade away, empires rise and fall but Nick Regan remains Nick Regan.) Jonny Secombe becomes BMAA Treasurer, Ron Bott is BMAA Secretary, Dave Thomas is Membership Secretary, Paul Baker Training Officer, Adrian Jones Chairman of the Technical Sub-Committee, and Brian K. Harrison is Accident Prevention Officer. Ann Welch becomes President of the BMAA.

Following a discussion of the criticism of the British Minimum Aircraft Association as a name, the AGM voted to re-dub themselves fliers of Microlights.

# COMPETITION NEWS

## COMPETITIONS ACCOUNT 1980

	Expenditure	Income	Balance	
	£	£	DR.	CR.
Bank Balance 8.12.79				2,535.59
less 1979 creditors				1,016.17
Balance forward ...		1,519.42		1,519.42
National League	1,805.35	1,295.00	510.35	
American Cup	5,790.33	1,277.83	4,512.50	
Bishop XC	2,618.68	740.00	1,878.68	
Bleriot Cup	1,978.27	450.00	1,528.27	
European Championships	3,200.75		3,200.75	
Grouse Mountain	2,080.95	110.00	1,970.95	
Italian XC	400.00	300.00	100.00	
Japan	2,431.76	2,385.89	45.87	
Lachens XC	774.49		774.49	
Masters	250.00		250.00	
Travel & Health Insurance	816.50		816.50	
T-shirts	570.40		570.40	
Raffle	1,274.86	2,685.50		1,410.64
Sports Council		12,794.00		12,794.00
Deposit Account Interest		350.40		350.40
Sundries	280.10	297.25		17.15
VAT Refund		245.54		245.54
	24,272.44	24,450.83	BALANCE	£178.39

Derek Evans

## LEAGUE ENTRY 1981

There are at least 12 places available in the 1981 League. Aside from the 11 who dropped out – the Competitions Committee confirmed Milton in his honorary place – John Bridge won't be flying the 1981 Competition round, partially because of a broken leg, partially because of the amount of time he lost after breaking it. Other pilots in the 1980 League may not meet the January 31st deadline for payment of their £35 entry fee, a signal that they don't want a place.

Competing for the places available, after the dust has settled it looks like 16 pilots want to get into the 1981 League. These are: Michel Carnet, Len Hull, D.L. Carson, Mike MacMillan, Andrew Wilson, Chris Ellison, C. Ashman, Jim Brown, Peter Hargreaves, John Stirk, Keith Cockcroft, Richard Iddon, Ian Curren, Peter Robinson, John Duncker, and Steve Goad.

These pilots are invited to the first League competition in Brighton, February 28 – March 2nd where they will compete for a place as part of the general League competition. Because there are changes in the way the seeding is done, for the first task they will all fly against each

other. If, however, we do get 16 places available, they will all go in.

Commiserations to Carl Tonks and D.P. Freestone-Barks who didn't have quite enough XCs to qualify, just two instead of three.

## GIRLS IN THE AIR

There's been an enthusiastic reaction to the suggestion that there should be an all-girl competition at one of the 1981 League competitions, to give girls the sort of experience that male pilots could get years ago. The following suggestion hasn't yet been ratified by BHGA Competitions Committee, but there will be a **Womans Competition** over courses used at the 2nd League Competition in North Yorkshire over the Sat-Mon period, April 4/6, which will be organised by Jim Brown. I know of three possible contenders, but any woman who's interested in entering such a competition should contact Brian Milton, 31 Westbury Road, Bristol, and send £6 entry fee payable to BHGA. The women's event will be held at the end of each League task, over the same course, and 1-on-5, in the same way the National League works, except it'll be all-female. If a

cross-country is called, then women will be subject to the same rules as National League pilots. If the event is a success, then others will be run. This will not preclude women entering the National League on pure merit, by competing in Dave Harrison's XC-League and placing high enough for automatic entry, but there's no doubt that women have a tougher time of it in hang gliding than men, and an all-woman's event will encourage women much more than a purely open event.

## COMPETITION TROPHIES

There will be two new trophies awarded in the 1981 National League. One will go to the League-entry pilot who's highest placed at the end of his first year....in 1980, that would have been won by Geoff Ball, who placed 7th. There's a second trophy for the existing League pilot who shows the greatest improvement over his previous year's standing....last year Tony Beresford would have won, jumping 17 places from a (nearly relegated) 40th place to a much healthier 23rd spot, Mark Southall looks next best with a 12 place jump, while Trevor Birkbeck jumped 9 places, and John Hudson 8 places. Mainair Sports is donating one of the trophies, and Flight Promotions the other.



Tony Beresford – photo Mark Junak

## FUTURE LEAGUE ENTRY

BHGA Competitions Committee has decided that entry into the National League from 1982 onwards shall be solely on a pilot's position in the Harrison XC-League. Anyone wanting to enter the National League should endeavour to make it into the top 12 (excepting those existing League pilots who have no fear of being dropped), so that at the end of the year they're eligible for League entry. This supersedes last year's requirement of three 10km flights, anywhere in the world. Dave Harrison only counts flights in Britain. It could mean making into the League with less than three 10km flights, or that the requirements are much stiffer. Competitions Committee has donated £50 towards some of the costs incurred by Dave Harrison in running his League.



# STALLS STALLS STALLS STALLS

by Bob Calvert

Stalls are responsible for more accidents in aviation than any other single factor. In hang gliding there is no more than a basic training programme. Add the two together and the result is that there are a lot of accidents in hang gliding due to inadvertent stalls. The solution is slow, careful self-tuition.

The first step is to understand the theory behind the stalls and stall recovery. Books, and "qualified" pilots are in ample supply.

## **Straight and Level Stalls**

Get high, very high, and well clear of obstacles, and have a good lookout everywhere. Head directly into wind and very gently ease the bar out. Roll control will be reduced, so lots of body movement may be required to keep level. As the nose drops, or an uncontrollable turn develops, pull the bar in gently and hold on opposite turn. This will make the glider recover. Lots of practice at this will help gain confidence.

## **Stalls in the Turn**

These should be tried only when the pilot has progressed from P1 and is competent at various banked turns. *Your stall speed increases sharply with bank angle.*

## **Low Bank (ie 30°) Stalls**

Once the turn is initiated, constant pushing the bar out will either increase the bank without stalling, or more likely cause the bank to decrease and the nose to drop. Any turn will tend to be in the direction of the original turn. Opposite roll and pulling in will initiate a recovery.

## **High Bank (30°-90°) Stalls** – which are much more fun!

Once the bank is constant, apply opposite roll and increase "push" until... something happens! The tendency will be for the bank to increase and the nose to drop. Recovery will probably be as soon as the nose drops, but pulling in slightly will help. Holding opposite roll will prevent the turn getting too steep.

## **Downwind Stalls** – Certainly Exciting!

Practice these regularly and no one will ever fly near you. It is a good idea to be very competent at 360s before trying these as the time available to return into wind is obviously very short.

## **Conclusion**

The more you practice stalling, the slower it is safe to fly. The expertise gained practising may one day save your life. We all can make mistakes.

I don't know anyone who hasn't stalled accidentally, yet I know MANY PILOTS who fly too close to the stall near the ground. Some of those pilots will get HURT.

Will it be you?

– narrated by the "British Needlework Champion"



Micky Maher from yet another angle dangling from a power line – photo Mark Junak

## POWER CONSCIOUS

*In the middle of 1980 there was a spate of accidents involving hang glider pilots and power lines. Wings asked if there was any good advice on what to do if it happened to you, and how could one avoid them? The answer came – R. D. Green, of the Peak Hang Gliding Association, who tackled the Midlands Electricity Board and received the following advice . . . .*

There is probably no undue problem caused by hang gliding in known defined areas away from overhead lines or at least where the locations of lines are well known by all participants. Major problems are likely to arise in areas not normally used for hang gliding purposes, an example of this being the incident at Congleton Cloud.

### MARKING PROBLEMS

We are reluctant to comment more than very generally on the issue of marking lines or the dangers of making contact with lines since situations can and will vary considerably from one location to another. Overhead lines are generally fairly obvious when viewed from ground level and, indeed, we are often criticised by environmentalists for the visual impact caused. However, as you will well know, when viewed from above with an earth background the conductors can be almost invisible. There are occasions when cork markers have been attached to lines in the proximity of pigeon lofts, etc. In theory this practice could be adopted for hang gliding, but there are a number of problems which would probably render such a proposal impractical. Some of these are:-

1. The full extent of any danger zone would have to be known.
2. The extent would probably be considerable and thus the marking of the lines prove expensive.
3. Hang gliding tends to take place in areas of outstanding natural beauty thus any steps to increase the visibility of overhead lines would be hardly likely to meet with the approval of planning authorities, environmentalists, etc.
4. The use of markers would be likely to increase our own problems in respect of icing and breaking of conductors in winter weather.

We are thus unable to offer any real solution to the problem other than the use of closely defined areas for hang gliding.

### WHAT TO DO IF . . .

On the subject of the dangers of landing on power lines and the associated risks of attempted rescue,

it is again difficult to apply hard and fast rules. The energy dissipation caused by a short circuit on one of our 11,000 volt power lines is very great indeed. It would not be unusual for a power arc to dissipate energy equivalent to 100,000 kilowatts for the period of the short circuit. Thus the risk of serious burns is considerable, not to mention the inherent danger of electric shock. In general, such a short circuit will result in the automatic disconnection of all supplies. However, in many cases, we use automatic reclosers which restore supplies. The operation of this type of device is much the same as replacing a blown domestic fuse with a new one. If the short circuit condition no longer applies there is every likelihood that the supply will have been automatically restored. It would therefore, under these conditions, be very dangerous to attempt to touch anything or anybody hanging from the line. Clearly, in the case quoted, **Paul Quin** decided that the danger of serious injury or death to **Kenneth Dodd** while hanging suspended from the line justified him taking the risk of attempting rescue and events subsequently proved him right. However, it is possible in this case that the power could have been restored either automatically, by remote control from the Electricity Board Control Centre, or by Electricity Board staff operating switchgear remote from the accident. It is imperative that before any attempt is made at rescue the local Electricity Board Control is informed. This should prevent manual restoration of supply during the period of rescue, but will not protect against the automatic restoration of supplies.

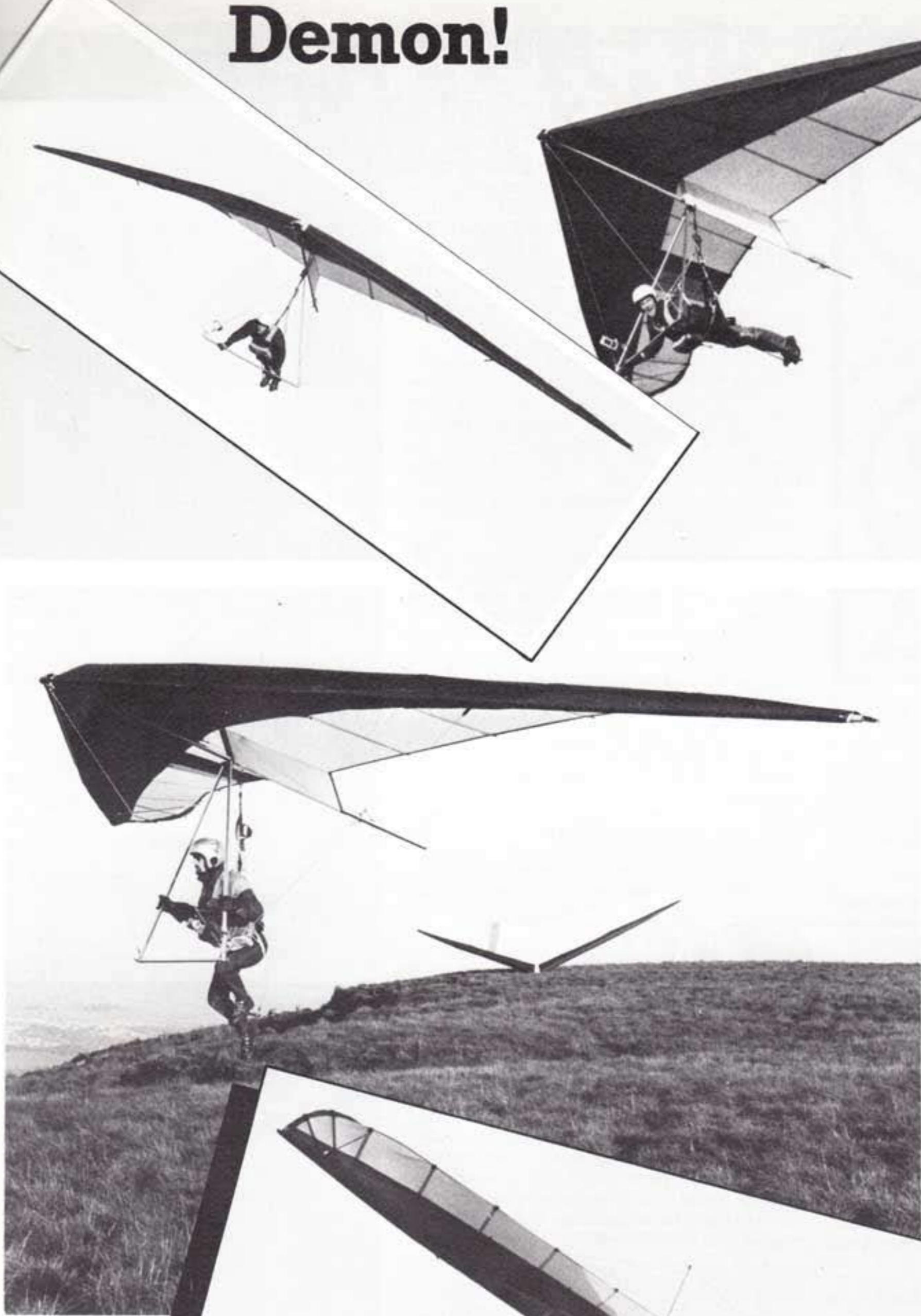
### NO FIXED RULE

We can appreciate the editor's desire for advice on the circumstances under which it is, or is not safe to attempt rescue. Unfortunately, the simple answer is that it is not technically possible so to do. Our own method of working on overhead conductors lays down specific rules, and all lines are treated as live until isolated, earthed and a permit to work issued. Clearly, in cases of life or death, our staff would have to adopt a swifter method of operation but this could only be undertaken using their technical and geographical knowledge of the electrical installation concerned. It would be irresponsible of any electrical engineer to issue advice other than "assume all overhead lines are alive and dangerous".

**W. J. Parkinson,**  
District Engineer



# Demon!



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**THIS GLIDER HAS  
NO BRITISH C. OF A.**





The **American Cup** isn't just a team flying competition. It's normally a great social occasion, and in the three years of its existence there have been some fantastic parties. Competition goes on all the time. Aside from the Cup itself, and the Rogallo Trophy, there was also a contest to win the **Bob Wills Trophy** and prize money for being the best aerobatic pilot at the meet. And thereby hangs a tale.....

The aerobatic competition was judged by all the competing pilots in the American Cup, by vote at the end of the meet. Two West Coast pilots with high reputations came to Tennessee for the competition, **Dan Racanelli** and **Rob Kells**, both of whom fly the Wills Wing Harrier, a fifth-generation double-surface machine. Dan Racanelli was the subject of a big feature in **Hang Gliding** about a year back, with some great photographs of his past-90° wingovers. He turned out to be burly, bearded, wearing a crash helmet that looked like a Nazi World War 2 leftover, and was thoroughly modest. Rob Kells, winner of the 1980 Grouse Mountain Meet, is president of Wills Wing, and looks like the typical California surfin' boy. Both, needless to say, are great pilots.

A third entrant for the Bob Wills Trophy was **Dave Ledford**, one of the final squad of 9 pilots competing for a place in the American team, who failed to make it. Dave became a Treetopper at Crystal, though the story goes he made a new record getting out of the trees again. He flew a Moyes Mega 2, and along with Dan and Rob, each competition day they filled in the gaps with aerobatic flying, watched with great interest by the rest of us.

Going off Lookout, 1,350 feet high, there's a mile to fly before you get over the landing area, with perhaps a thousand feet in hand when you're there to put on your display. Obviously pilots wanted smooth air before they start their hoolies, which tend to begin with a steep dive, whack the bar out, and away they go.....

I didn't actually see the beginning of Dave Led-

ford's famous flight, illustrated in part on this page with photographs from Vincene Muller, wife of the Canadian top pilot Willi. I was, in fact, behind the take-off ramp when a deep groan came from the assembly on the ramp, who'd been watching Dave's routine. Like everyone else, I joined them to see the parachute deploy. Dave had been trying for a true loop, which is apparently possible these days, and though he'd come close with more than 160° wingovers, he hadn't actually made it. On this particular flight he parked upside down, then tail-slid and started tumbling. After three tumbles he got his chute out, and the rest Vincene got on camera (Terry Silvester got quite a lot of it on video too).

In all the tumbling, the Mega remained intact, breaking **nothing**, and it was only when Dave landed - off the spot, as the more competitive pilots noted - that a small piece on top of the kingpost broke, being the actual point of impact with the ground. Dave walked away, and flew the same kite cautiously next day, before settling down again to his routine aerobatics to try and win the Bob Wills Trophy.....

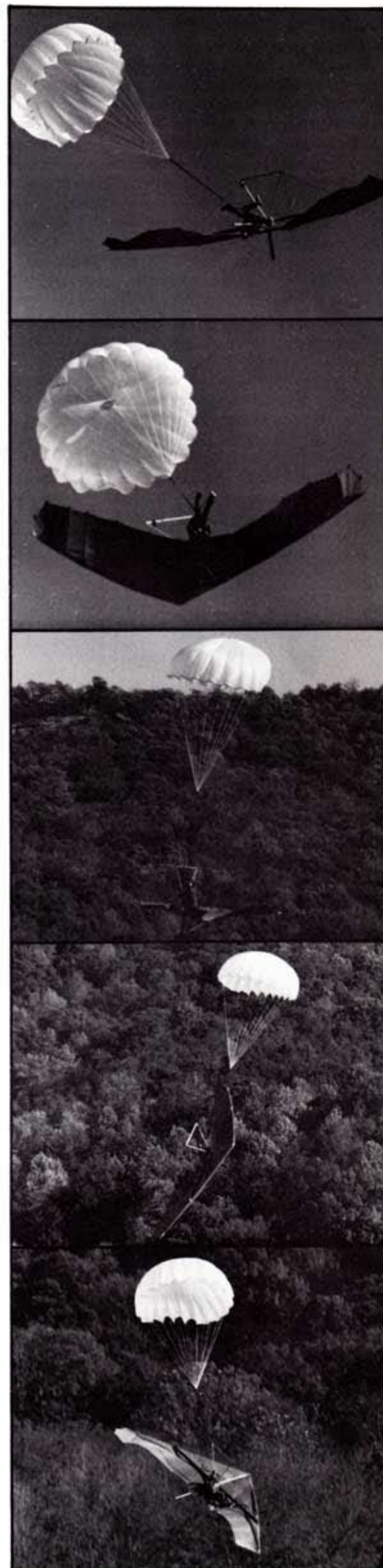
There's no doubt Dave's was a tough act to follow. There were three schools of thought on the subject. One was that Dave had won outright, and everyone should now stop. The second was that Rob Kells, who'd been doing more and more outrageous aerobatics, and was obviously trying hardest, should get the vote. The third was that Dan Racanelli was keeping his flying beautifully controlled, was not taking needless risks, and in the interests of safety he should get the vote. But Rob Kells obviously had a good think about Dave's "tough act", and came to his own startling conclusions.....

We were all lined up for the presentation of the American Cup. The Americans were modest, laid-back and joking. We were shattered. The French were thinking of a last caricature. The Canadians had their little mascot holding the flag, and in general, the whole game was over and we were thinking of the party that evening.... when out from the hill flew a lone black Harrier. I think the Canadians were being feted by the commentator as Rob Kells flew over the landing area and then over us, but most of us were looking up, wondering what was going to happen. Right above us, Rob dropped his 'chute, and his glider slowly and gracefully went into the vertical. He said later that he wanted to hang there for a second or two, then pull a quick release (he had a second parachute), fly free of the open 'chute in a vertical dive, and then execute a genuine loop. The problem was, when he pulled his quick release, nothing happened. (*You can see a photograph of Rob's predicament on page 16 of December's Wings!*)

We all watched, appalled yet fascinated, as Rob pulled and pulled at his chute, and nothing happened. He let go of the control bar, put his feet on it and began pulling with two hands, all the time descending vertically at us. It looked like a few more seconds and he would land, nose down, on the road behind us, and he was close enough it felt you could reach out and touch him. Then, the kite wagging from side to side, suddenly, the release worked. Rob dived for the control-bar and pushed out, and the Harrier went into an enormous wingover right over the tents and the crowd. He had no height left to do anything afterwards but land. The parachute drifted down a few yards away, and then, absurdly, so did the deployment bag.....

One wonders how Dave Ledford would have followed that if there had been a few more days left. Rob Kells clinched the vote and won the Trophy.

**Brian Milton**







# IT MUST BE TRUE

## I READ IT IN THE NEWSPAPER



*National Geographic, February 1972*

Unlike sailplanes, hang gliders must shun strong updrafts that might carry them too high. Number one rule of the sport is "Never go higher than you are willing to fall".

*Observer Magazine, 7th April 1974*

Hang gliding is a development of gliding itself, on a much more basic level. You strap yourself to any of the patent wings (designed on the kite principle) wait for a steady breeze, and then jump off somewhere... The sport attracts a daredevil element, men who have nerves of steel, obsessed by their new-found airborne state... The pilot flies by hanging horizontal after jump-off, or sitting on a flexible bar. By moving this bar with the weight of your body, you steer the glider into the wind... Experienced hang gliders start running before they hit the ground... Badges (for feats like 45° turns) have followed...

*Unknown publication, 1974*

... design innovations are taking place almost daily. Members are already talking of flying cliffs like Beachy Head... I was shown the first prototype of a new generation of glider. This had something called a 12:1 glide angle which I was told means you can get it up easier...

*Sunday Times, December 15th 1974*

One of the most dangerous aspects is the use of one glider by syndicates of people whose bodyweight – a critical factor in hang glider control – varies. At one university one hang glider is the property of 87 people...

*B.P. Shield, April 1975*

... Control of the kite is exercised by moving an 'A' frame secured beneath the kite by body weight... (Eh?)

*The Guardian, Saturday December 27th, 1975*

It is a sport so new that its bounds are being pushed forward every week. We returned from Devil's Dyke to a telephone call from a pilot in California to say that he was now going "wing-over" on steep turns. This means that it may now be possible to do barrel rolls in a hang glider...

*Unknown publication, 1976 (magazine)*

A supporting triangle of aluminium, set perpendicular to the wing, enables the pilot to control his flight by pressing down with his hands or chest on the horizontal bar of the triangle... The span of a Rogallo is usually about 16 to 20 ft, but the load bearing surface can be up to 90ft... Naturally, modern apparatus is very light and its total weight depends on how much the user weighs – it varies from 10 to 15 lbs... When you begin, you'll only be about 30 to 60 ft above the ground, so a spill needn't be serious, as you would probably glide gently to the ground...

*Unknown publication, 1976*

But there will always be accidents... death was accidental: he was flying down wind at the wrong time... Brian Milton says "When something goes wrong, it's on our neck. And without the joy of being able to fly at 1,000 feet like a bird... without that I don't know what I'd do. It would be a dull old world if we weren't allowed to do it".

*Daily Mirror, 1976*

I am sitting in the largest, freshest cowpat on the Sussex Downs. And I am ecstatic with joy! It happened after a slight mishap during my first, exhilarating solo flight by hang glider – flying from a hilltop to a pasture 300 ft below. Believe me when I say there is NOTHING so rewarding as launching yourself into the void under a 20ft Terylene kite...

*Daily Mail, August 27th, 1977*

... It is the sport of the future, for it is the fulfilment of man's dream. The dream he has when he looks up into the sky and sees the gulls or the rooks playing in the wind, and says to himself, 'If only I could fly like that!' Now he can...

*Unknown newspaper, 1978*

Birdman David Cook yesterday crossed the Channel by powered hang glider. He soared into aviation history by touching down near Calais after a one hour flight from Deal, Kent.

*Daily Mirror, August 27th, 1979*

Welshman Gerry Breen, 26, yesterday became the first man to pilot a powered hang glider across the English Channel.

*Sun, July 11th, 1978*

Hang gliding is a man jumping off a cliff, a hill, or a mountain with nothing to keep him up but a theory in aerodynamics, an aluminium frame and a Dacron sailcloth...

*Women's Weekly, 4th August, 1979*

... Gliders take off from high places with the correct following wind...

# BROTHERS IN LAW (7) PARLICK FELL

Bob Calvert

Parlick Fell on Fire Hill is a smooth grassy 500' hill which is suitable for most wind directions. It is ideal for model gliders, sailplanes and hang gliders (it is not soarable in a Cessna 152!). The Blackpool and Fyle Gliding Club has its base 1 mile South West of the hill, and uses a winch to launch the sailplanes.

## Problems

Parlick Fell has many of the problems as other sites shared by modellers, sailplane pilots and hang gliders.

1. The lift can only be used in very short beats. In perhaps half the wind directions the hill is soarable.
2. The hill is used for the early training of sailplane pilots.
3. Parlick is overcrowded with any of the three types of fliers at some time during the year.
4. It's a problem to ensure that when the traffic is "mixed" all pilots are adequately experienced (the sailplane pilots are, of course, controlled).
5. The sailplane pilots obviously have a lot of money invested, and have a limit to the number of gliders at Parlick, so it's only natural that they are bound to be very apprehensive about hang glider pilots.

## Realities

1. No one can prevent the others from flying.
2. We are all aware of the dangers.
3. We are all flying for fun.

Because we're all aware of the realities, we've established an excellent relationship with each other. Some people actually participate in all three types of flying on Parlick. It is not uncommon to see sailplane pilots walking up Parlick, or hang glider pilots launching sailplanes.

## Solutions

The following rules have been successfully implemented:-

1. On windy days, the modellers fly from the side of the hill and generally stay below the top. Hence the models are segregated from the sailplanes and hang gliders.
2. When the wind is strong and the hang gliders are stationary, then all of them stay close to the ridge, or all of them stay forward, hence leaving a route open to the sailplanes.
3. Below 200' above the hill, the sailplanes have priority, as they must stay above this altitude or return to their site. (If a sailplane cannot maintain this altitude, all the hang glider pilots stand on the edge of the hill and wave bye-bye).
4. When the ridge gets overcrowded then both hang gliders and sailplanes land until conditions improve.

5. Adequate control of the inexperienced hang glider pilots is accomplished by the regular fliers, and their own reluctance to fly when sailplanes are airborne.
6. The sailplanes containing the most inexperienced glider pilots have become well known to hang glider pilots. Two are affectionately known as "The Barge" and the "KeilKraft Soarer Baby".

## Conclusions

It is a pity that at so many other sites the sailplane pilots are hostile towards hang glider pilots. This has never been the case at Parlick, and the relationship between all the fliers has always been excellent. Generally speaking, the sailplane pilots have met us at least halfway to enable us to get safe enjoyable flying.

It is the knowledge and skill of the sailplane pilots and modellers that has taught many of the Northern hang glider pilots about light wind thermalling, sea breeze fronts and local wave.

Mixed traffic with all its problems has worked well in Parlick for years. Let's hope the relationship at other sites follows this example.

Please don't all rush up to Parlick; it still has its own problems, the main one being overcrowding, which encourages many local pilots to drive the extra distance to the Dales and Lake District. Anyone wishing to fly hang gliders at Parlick should contact myself (Blackburn 21615) or one of the other local pilots.



# THE TYPHOON

THIS GLIDER HAS  
NO BRITISH C. OF A.

## OUT OF THIS WORLD



A FLYING  
EXPERIENCE  
BEYOND  
YOUR DREAMS



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Rose Joint/Anti Yaw Device

Negating Localised Stress & Wear

Quick Break Down System

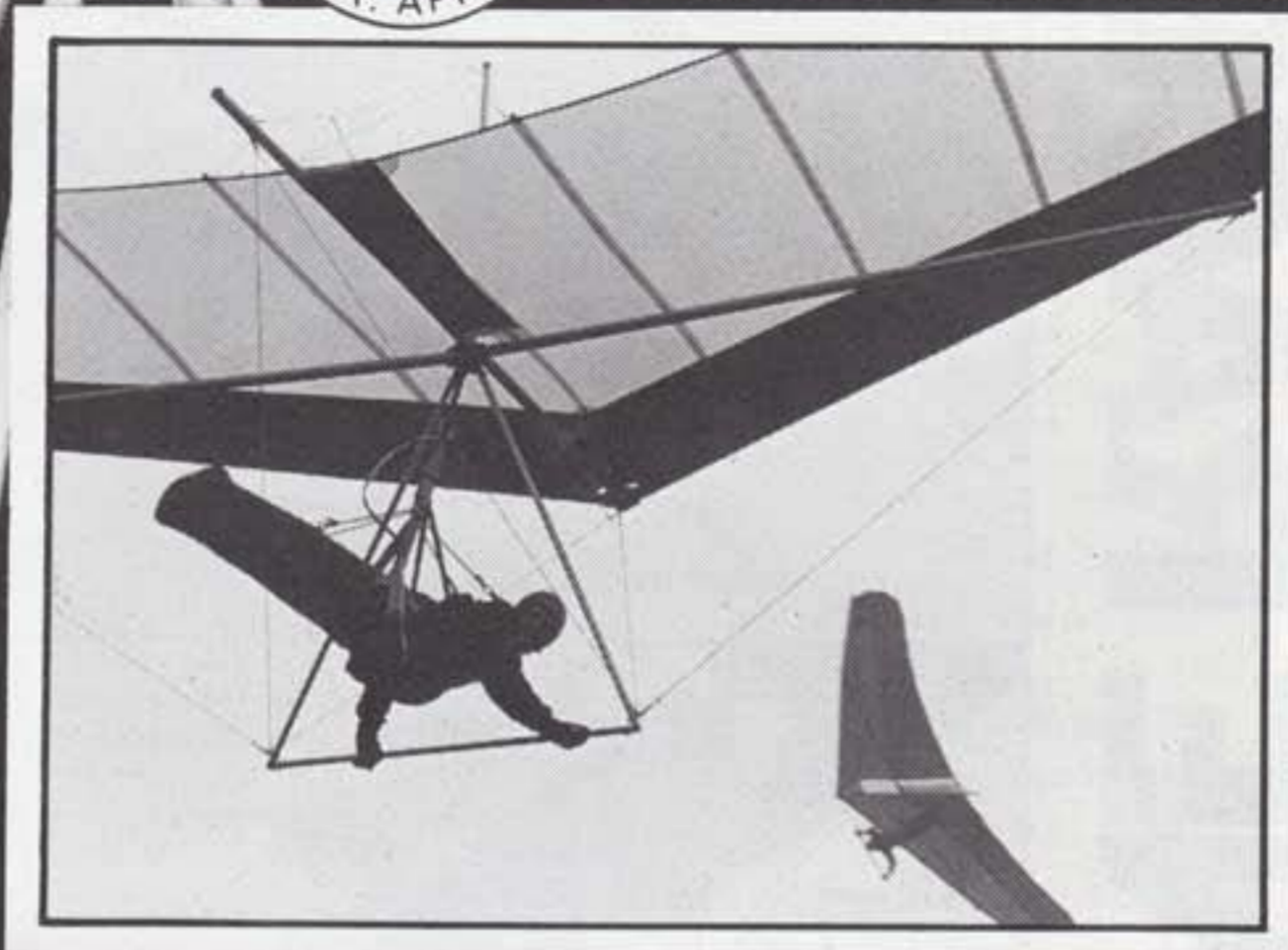
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# STORM



## THE SOLAR STORM

is a continuing success story and still very much in demand. It has found favour with P.1's through to league pilots and represents excellent value for money.

The Storm is also being chosen by discerning pilots interested in power conversion.

So, whether you're into motorised flying or a staunch free flight purist —

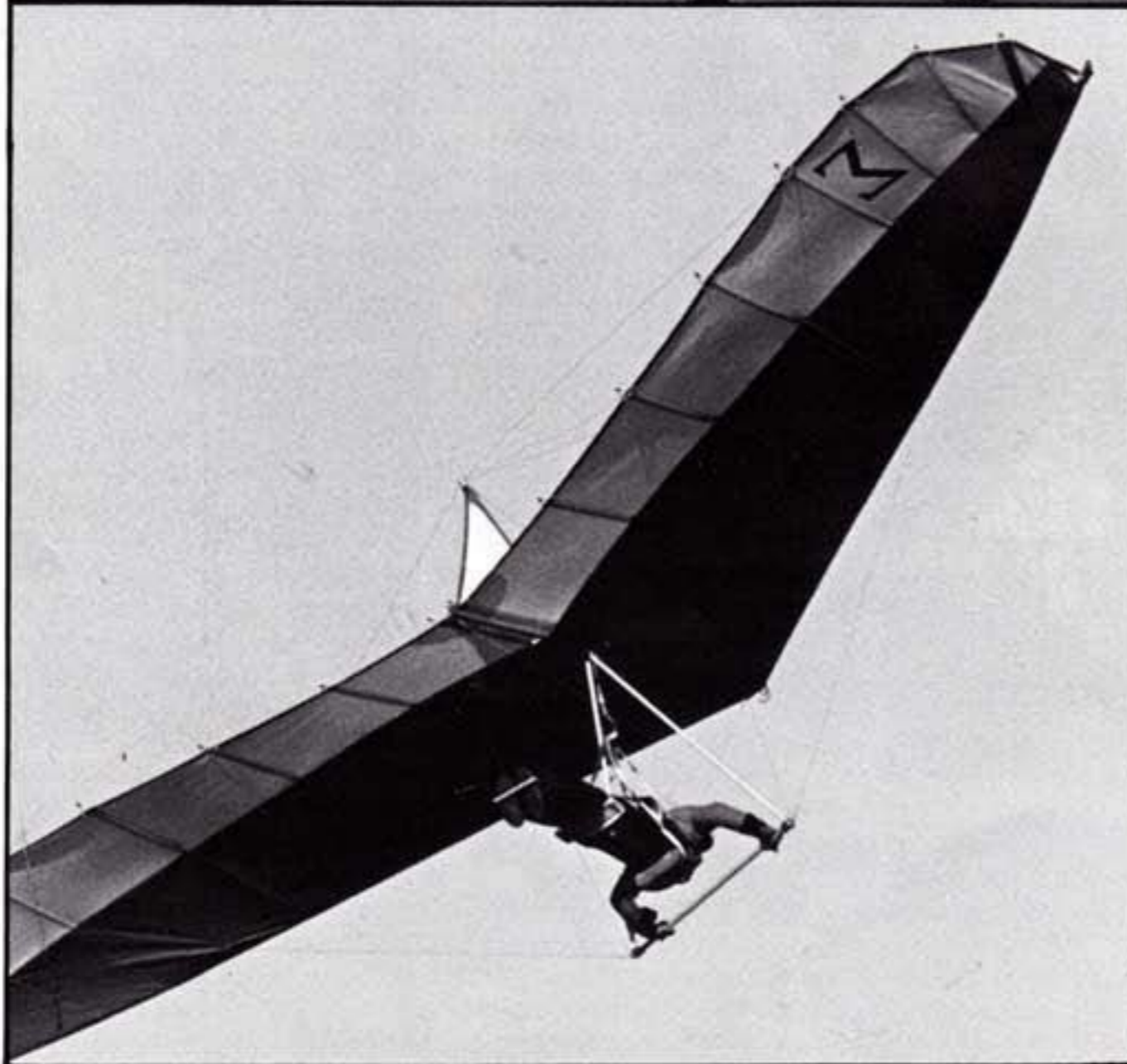
THE STORM is the Glider for you

photography: John Wadsworth



# THE GREAT CLONE RACE

TONY FUELL



*"In the beginning, there was the STANDARD. And the STANDARD begat the SWALLOW-TAIL which begat the CLOUDBASE and the FALCON IV. And the STINGER begat the SCORPION which begat the SUPER SCORPION, which begat the ATLAS which begat the VULCAN and the MEGA II.*

*And the GULP begat the GRYPHON which begat the EMU which begat the SIGMA. And the PHOENIX 8 begat the CYCLONE and the MARIAH. And they all begat the COMET. And the TYPHOON, and the DEMON. And the LIGHTNING.*

*And the Children of the Wind gathered in one place, yea even upon an hill and cried aloud with one voice, saying; LORD, which glider shall we buy? And who on earth is going to buy our old gliders?*

*And there came not any reply . . . . ."*

There has rarely been a more exciting time to be involved in hang gliding. Up until now, seekers after cross-country truth had a performance choice to make. You either traded speed off against sink rate, and ended up with a "floater" (which went up magnificently, handled well, but went down like a brick when you pulled speed), or you went for high aspect ratio speed machines and either suffered complex rigging (eg Fledge) or handling that was at best mediocre and on some gliders was positively lethal. Also, you put up with indifferent sink rates.

But now for the first time, there seems to be a real possibility that the 1981 ships will have the handling and sink rates equal to the best currently on offer, coupled with really useable high speed. Some people are calling the "concealed floating cross-spar" (CFX) concept at least as important in hang glider development as were the fully-battened, keel-pocket gliders when THEY first appeared.

What follows is, I have to say, an entirely personal view of the new developments. I haven't, at the time of writing (December 10) flown any of the new ships. But I have, from my perch on the South Downs seen most of the new entries flying against each other. I've talked at some length to both manufacturers and pilots who've flown the ships. And I helped to organise the Great Clone Race which took place on December 7, which was, I believe, the first attempt to assess the new wings against one another in an impartial way. But if I've overlooked anything, or omitted to mention any important new wing . . . . TOO BAD! (Write your OWN article about it!)

## THE COMET

I first saw one of these at Mill Hill on November 23. This particular model belonged to Airwave, the UK licensee of UP Ltd who designed it. The COMET was, of course, the first really successful CFX glider, and was largely responsible for the US team's victory in the American Cup.

Mill Hill was being its usual horrible self that day, and it was made more unpleasant at times by low cloud, rain, and low-flying aircraft - not the best circumstances in which to assess a new glider. In fact, I passed up the chance of flying it, entirely due to the conditions, and stayed on the ground while braver souls took it up. It seemed to handle the turbulence well, and got up just as high as the prototype LIGHTNING which was being flown at the same time.

That glider had a British-made sail on the US airframe. In common with other US-made gliders, there were features on it which wouldn't be acceptable in the UK. Not safety-wise, I hasten to add, but things like it not having a nose-catch, so laying it flat was difficult. The manufacturers said that



things like this would be sorted out on gliders sold here.

Two very prominent League pilots flew it. Both liked the handling and felt that it would be an easy glider to thermal successfully. However, both also commented that it had a distinct tendency to "weave" as the glider got into the higher end of its speed range, and while not making the glider unsafe, they felt that this could unsettle an inexperienced pilot, until sufficient experience of the effect could be gained.

One very noticeable characteristic of this glider, and other CFXS ships I've seen is the slackness of the lower rigging when the glider is on the ground. This obviously doesn't matter once the sail is loaded up, but the takeoff technique obviously needs to be right, to make sure that the sail is loaded before the run is started. Talking to people who've flown it indicates that it looks worse than it feels in practice, and in America they've been flown off ramps and the like in downwind conditions.

All in all, the COMET is a nice looking glider. If the one I saw is any example, the sails will be made well, and if the manufacturers can keep the price competitive, it should sell quite a few. It is, of course, being "Xeroxed" all around Europe at the moment, but being first in the market does have some advantages.

### THE DEMON

HIWAY had Bob England's design on the ground at Mere in early September, well before the Comets arrived in the UK, so it may be a little bit unfair to call it a "clone". Nevertheless, the similarities are there... a deep(ish) keel pocket, rigid battens, CFX airframe, a very clean sail. Said to have excellent handling, the DEMON has a very high standard of fittings. It also has a fairly steep price-tag as well.

As to performance, it is quite definitely a 1981 ship, which means it has plenty of speed. I've only seen one of these gliders on the South Downs so far, and that didn't seem to have the edge in sink-rate terms on things like the Atlas and the Mega, although it certainly was able to star in the higher-wind conditions. It didn't do particularly well in the race we had, but its pilot hadn't had much chance to get acquainted with it beforehand. I would say that this is one to watch in the manufacturer's competition.

### THE TYPHOON

Christened "the teabag" by Steve Goad before Graham Slater had it out of the bag (Typhoo... gedit?), Solar Wings' new entry could with some truth be described as a Comet clone. In flight, it would be very difficult to tell the two gliders apart. Solar had done a good job on the sail and fittings of the one I saw, and for sheer aesthetics, this glider is probably the best of the bunch.

It also managed to get "top-of-the-stack" at the Devil's Dyke on December 7, for quite a while, despite the best efforts of some of the competition, who were trying very hard indeed. Admittedly, Johnny Carr was flying it at the time - other mere mortals who flew it had more difficulty in getting it to go up, probably through the effect of the light pitch pressure. It seemed easy to fly it too fast.

### THE LIGHTNING

Southdown (Grizzlywings) Sailwings are one company who cannot be accused of cloning at all. Their new glider is very technically interesting and owes nothing at all to any other glider in the world.

Ian Grayland has always tended to go his own way, designwise, with varying degrees of success. It is probably only his due that at last he has been able to put together the various elements of the current technology in such a way as to make a

glider that a lot of people will want to buy.

Take, for example, his philosophy on keel pockets. Now the keel pocket on a conventional rigid airframe glider is there to aid the transfer of tension across the sail in response to the movements of the pilot's weight. The introduction of the "floating" cross-spar is another way of achieving exactly the same thing. So, Ian argues, if you've got one perfectly effective means of making the billow shift, why on earth do you need two? The introduction of two sources of sail movement introduces an interaction potential which might not be advantageous. So on the Lightning he has done away with the keel pocket altogether. Billow shift is achieved solely by means of the floating cross spar, and the sail is attached in a very tight pocket to the keel, which itself pivots about halfway along.

The end product is a glider which, they claim, maintains the lightness in roll demanded by today's pilots, but has a distinct "crispness" to its handling, by comparison with the softer feel of the keel-pocket gliders such as the Comet. Abolishing the keel pocket enables the designer to achieve a very smooth profile at the trailing edge, too.

But the keel pocket serves another important function on a glider, in that it provides a vertical surface. Without a vertical surface behind the "centre of pressure", a glider would be impossible to control, it would tend to yaw and sideslip all over the sky. Doing away with the keel pocket could have presented problems.

But with characteristic flair, Ian has solved this problem in such a way as to pick up an additional benefit as well. Stuck up on top of all hang gliders is an unsightly pole - the kingpost. Usually about two feet of drag-inducing round-section tube, the kingpost is just right for fairing-in with a triangular piece of sailcloth. "At a stroke", this reduces its drag considerably, and provides a large vertical fin which confers truly excellent directional stability. An elegant solution to two problems at the same time.

What a pity the British team didn't have Lightnings available to them in the American Cup. Judging by what I've seen in the last month, the glider is fully competitive with the Comet on sink-rate and top speed, and rumour has it that it's a tad better on handling as well.

The acid test is that all the SHGC stalwarts who've been sitting on the fence for the last year have put all their old Superscorpions, Gryphons and Cyclones on the market simultaneously, and are now busy selling their children and taking out second mortgages on their houses to put down orders for Lightnings....

### THE GREAT CLONE RACE

Sunday December 7 was something special at the Devil's Dyke. A clear day, high pressure, freezing cold, a stiffish NNW wind, some thermal activity, excellent soaring conditions. And nearly all the new ships were there for test flying! (The only one missing was the Comet).

The conditions were so good in fact that the only thing to do was to organise a "ridge race" to Truleigh Hill and back... The results are given below.

What IS interesting is that the Fledge for the first time has serious competition in out-and-out speed tasks. Both the Typhoon and the Lightning were within 2 mph of the Fledge, over a 4.8 mile course, and it has to be remembered that Johnny Carr, who was flying it to provide a basis for comparison is not only an outstandingly competitive pilot, he has also been flying that glider for nearly a year now. All the 1981 gliders were brand new, and straight from the bag, (almost).

Earlier in the week, Johnny had been amazed to see a Lightning pull up alongside his Fledge and

then get away from him UPWIND, in an impromptu "speed-vs-glide" trial. It seems as if the days of the rigids and semi rigid gliders may be nearly over...

If the "average speed" times look low, remember that we were measuring the distance in a straight line, whereas the competitors were flying in and out of the bowls along the way. Also, they had to get over a large and imposing set of powerlines. The best comparison of all is the Gryphon, for four years regarded as THE glider to beat for sheer speed, which was left for dead by all the 1981 ships, even those whose pilots had had little previous experience on them.

A Manufacturer's competition is scheduled for early January. It will be very interesting to see who comes out on top. My tip, I think, would be the Lightning, but there are certainly other manufacturers waiting to show us what they can do (a French team, from La Mouette is supposed to be coming). Commercial success looks like being just as hard to achieve in 1981 as it was this year.

### THE GREAT CLONE RACE

Speed run: Devil's Dyke to Truleigh Hill (4.8 miles return)

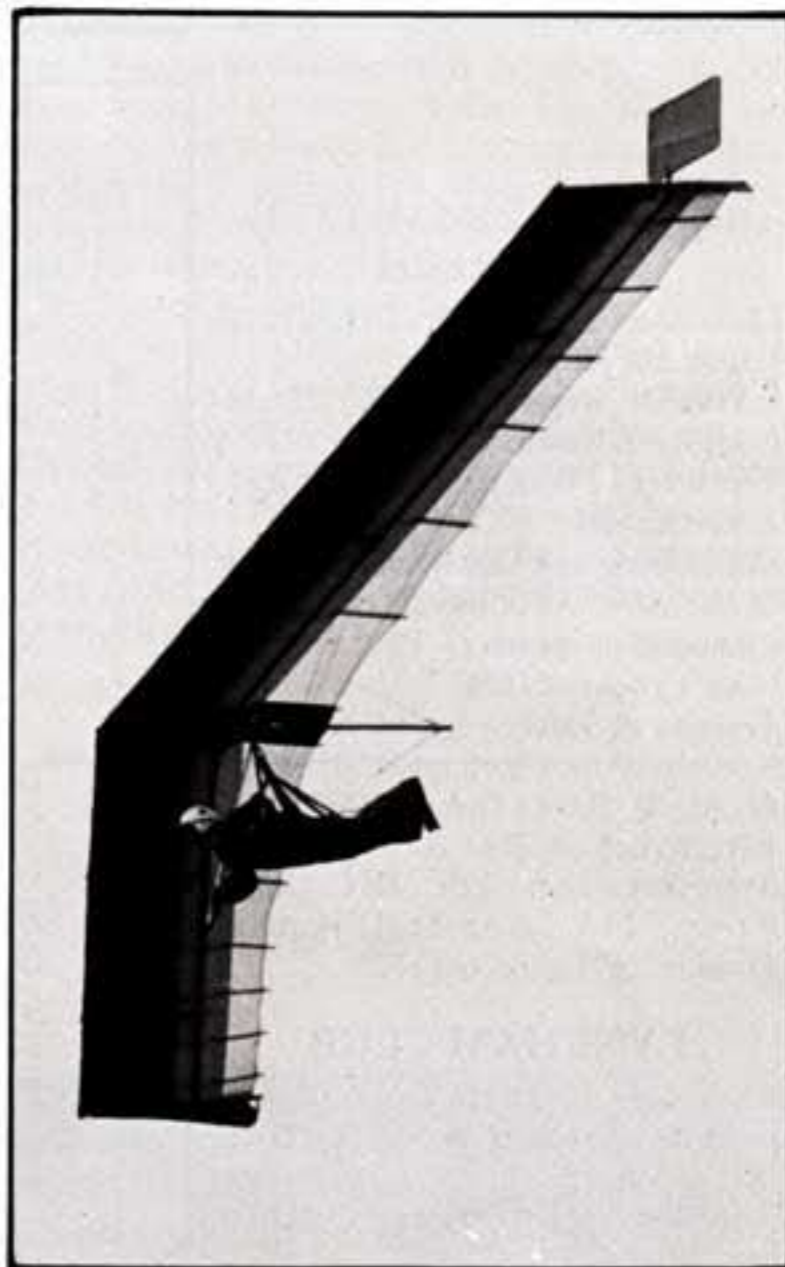
Sunday 7 December '80

Wind: NNW, 20-25 mph. Clear sky, some thermal activity.

PILOT	GLIDER	TIME (minutes)	AVERAGE SPEED (mph)
J. Carr	Fledge II	9.21	30.8
M. Maher	Large	10.00	28.8
G. Slater	Typhoon	10.12	28.2
K. Reynolds	Small	10.15	28.0
D. Clothier	Lightning	10.55	26.3
M. Carnet	Demon	11.05*	25.9*
J. Pedroza	Mega II	11.19	25.4
	Gryphon		

\*The time for M. Carnet was incorrectly recorded. This is an estimate, but is probably not too far out.

Scorers: Derek Evans and Mark Woodhams  
Organised by: Tony Fuell and Graham Slater.





## RAF RECOGNIZE HANG GLIDING

After many years of discussions and recommendations, the ROYAL AIR FORCE have now officially recognised the sport of Hang Gliding. On the 4th November a committee was formed to arrange the constitution (a list of committee members is enclosed). The significance of the constitution was that it was raised in conjunction with the Gliding and Soaring Association, and as the meeting proved, Sailplanes and Flexiwings can work together, not as opposition to each other. From now on the new organisation will be called the ROYAL AIR FORCE HANG GLIDING GROUP. The aim of the Group is to bring hang gliding within the reach of all members of the RAF and to introduce them to the BHGA Training Scheme. A further aim is to help develop member clubs within the Group.

Two new clubs have been formed, one in Scotland at RAF Lossiemouth, the other in Wiltshire at RAF Lyneham. The Lyneham club started in October with a membership of eighteen. Three months later it has forty members, the majority of whom are completely new to the sport. We have sent ten members off to Birdman School for training; another ten will go this month, and the club (in conjunction with Solar Wings) has just bought four brand new Solar Storms plus equipment for the members use.

As a club we do not have any sites of our own at the moment. Come the Spring we will have a nucleus of P1s, and only one P2. We would appreciate any help from other clubs in the future to enable us to fly with them on occasions to gain more experience.

Dave Blinkhorn

## RAFHGG COMMITTEE MEMBERS

**Chairman** - Gp Capt P.G. Hearn, tel Lacon ext 7063  
**RAFGSA Rep** - Gp Capt J. Delafield, RAF Newton ext 201  
**Treasurer** - Flt Lt Colley, Dept IOT, RAF Cranwell  
**Engineering and supply member** - Flt Lt French, RAF Upwood ext 242  
**Competition member** - Flt Lt Hurst, RAF Lyneham 7198  
**Training & Safety** - Sgt M. Appleby, RAF Henlow, Hitchin 815003  
**Flying & Sites** - Cpl D. Blinkhorn, RAF Lyneham 7342  
**Secretary** - Sqn Ldr D.C. Cobb, Room 114, Adastral House, London, tel Lacon ext 7125

## LYNEHAM CLUB

**Chairman** - Flt Lt Hurst  
**Secretary Training & Safety** - Dave Blinkhorn  
**Treasurer** - Mick Wilde, Lyneham ext 459



## DIARY 1981

Date	Event	Organiser/British Manager
January 10/11	Manufacturers Competition South Wales	Brian Milton
Feb 28-Mar 2	First League, SHGC	Johnny Carr/G Slater
March 7/9	AGM	Chris Corston
Mar 21/22	Return of Summer Comp. Hawes, Wensleydale	Pete Anstey
April 4/6	Second League, N Yorks	Jim Brown/R Bailey
May 2/9	Shanklin Event, IoW	
May 2/4	Third League, Lake District	Trevor Birkbeck
May 9/10	Roses XC Competition	Robert Bailey
May 18/24	Bleriot Cup, Dales, Open XC	Bob Harrison (teams of 8)
May 23	Tenth anniversary, Lilienthal Meet in Calif, 133rd birthday	?
May 23/25	Celtic Cup Ireland	Maxi McManus
June 5/7	Fourth League, Dales	Bob Harrison
June 8/14???	Lariano Triangle, Italy	Tony Masters
June 22/28??	Lachens Open, France	Mike de Glanville (team 8)
July 4/12	Owens Valley XC Classic, Bishop, California.	John Hudson (team of 5)
July 17/21?	Grouse Mountain World Invite Vancouver BC	Robert Bailey (team 5)
August 14/16	Fifth League, poss Bristol area	?
August 28/31	A British Public event	Brian Milton
Sept 5/7	League Final, poss mid-Wales	?
Sept 15/20	US Masters, North Carolina	(Hugh Morton) R Bailey
October 1/13	World Championships, Bieppu, Japan (Date changed)	C.I.V.L.

Missing from the above is the 1981 AMERICAN CUP, traditionally held in October in Tennessee. The Japanese only recently, the end of November 1980, changed the date of the World Championships, and I haven't heard from Tracy Knauss yet about his reaction.

## XC LEAGUE — 16th November 1980

Pos.	Name	Club	1st	2nd	3rd	Average
1	Rob Bailey	Dales	59.3	35.8	36.0	43.7
2	Pete Hargreaves	N. Yorks	18.0	43.2	68.4	43.2
3	Sandy Fairgrieve	Northampton	24.9	20.4	25.6	23.6
4	Colin Lark	Avon Club	25.7	19.6	20.1	21.6
5	Bob Harrison	Dales	8.0	16.0	40.3	21.4
6	Dave Harrison	Dales	8.0	50.8	—	19.6
7	John North	Pennine	15.9	10.5	29.5	18.6
8	Ian Ferguson	Lancaster	17.0	9.3	26.4	17.6
9	Jim Brown	Dales	11.0	26.0	15.4	17.5
10	John Stirk	Dales	20.9	14.2	15.3	16.8
11	Andrew Wilson	Sky Surfing Club Hampshire	10.0	17.5	19.7	15.7
12	David Bluett	South Downs	18.6	12.4	13.7	14.9
13	Geoff Snape	Pennine	9.5	19.7	13.6	14.3
14	Len Hull	Sheffield & Dist.	8.6	7.1	22.5	12.7
15	Rod Lees	Mid-Wales	14.6	18.5	—	11.0
16	Gordon Holmes	George Cayley	14.0	6.2	9.0	9.7
17	Carl Tonks	Western Counties	8.8	13.5	—	7.4
18	Paul Kavanagh	Pennine	12.0	9.5	—	7.2
19	Pete Anstey	Dales	7.6	11.7	—	6.4
20	John Hudson	Pennine	15.9	—	—	5.3
21	Dick Brown	Pennine	9.8	—	—	3.3

All distances in miles.

By Dave Harrison

## DELAYS

I've been responsible for most of the delays in **Wings!**, which should now stop. They stem from being an amateur editor, that is, having to do the work in my spare time. Working in London and living in Bristol, 118 miles away, has meant I've done a lot of the editing in snatched half-hours at BBC Radio London, where I work as a freelance....and they were beginning to notice. The situation wasn't improved by knowing there are more than 2 million people on the dole, including thousands of journalists. As it happens, instead of the sack, I've been promoted, and I should now work regular hours and have more time, not less, for **Wings!** It should be back on time by the March issue. Sorry about the delays.

Brian Milton

## CALVERT CUTIES OR METEOROLOGICAL DEFINITIONS

**Y front** - a unique weather pattern sometimes seen over England when a warm front has been partially caught up by the cold front, and is in a Y-shape.

**Deluded front** - a rather disillusioned warm front.

**Isobar** - a line of constant pressure often marked by a thin line of black cloud.

**A diversion** - a means of diverting air traffic at an altitude where there is no difference of temperature with height.

**A sea breeze wall** - a rather scaled-down version of a sea breeze front (although often not high enough to top-land).

**Barograph** - a means of recording alcohol consumed against time.

**Sitting wave** - low altitude standing wave.

**The 400 rule** - the percentage error factor applicable to weather forecasts.

**Lightning** - a visual phenomena for detecting the centre of thermals.

Bob Calvert

*(Is he serious? Where's it all leading to? Who can you turn to? Where's it going to end? Has he flipped his lid? Hypoxia? Weary from too many XC miles? Is this the end of civilization as we know it? Answers please to the Neasdon Hippodrome, not later than 1999. Meanwhile, if there are any new words out there, definitions of NONK, ARCH, PEACHY, and so on, local, regional, national, international, that you think would fit into an international hang gliding dictionary, would you please send them to the editor at 31 Westbury Road, Bristol, soonest? Foreigners are just as welcome as home-grown Brits. Even American words will be included.....)*



# THE FIRST DAY

by  
Richard Iddon

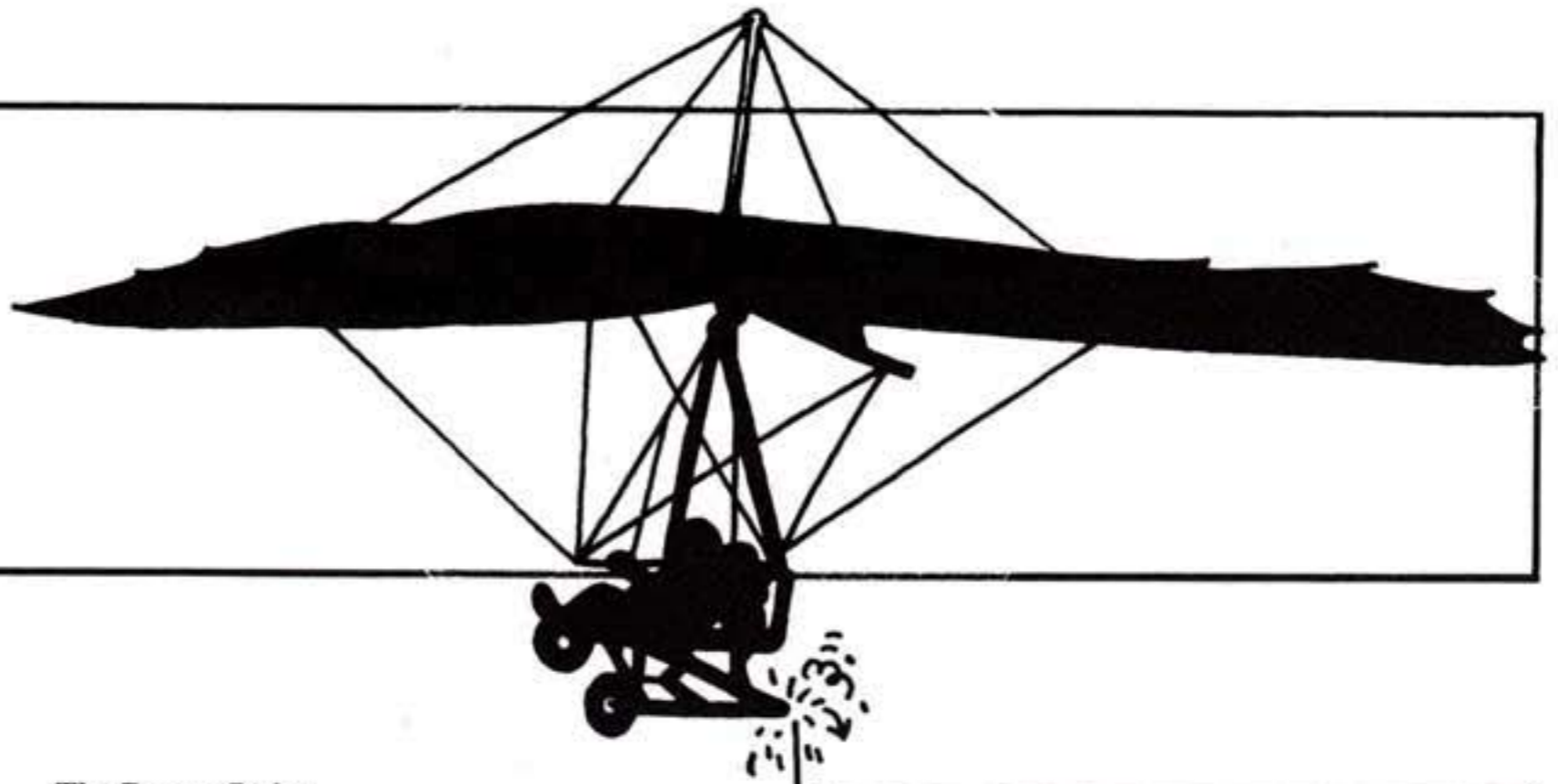
After the enthralling stories of Len Gabriels flight to Paris, the John O'Groats to Lands End race and other such exploits of the powered fraternity, this is my account of the first epic day in the powered hang gliding career of my cousin John Bridge and myself. After waiting three months or so we finally took delivery of our "Sky Trike" one wet Saturday in September and spent the evening adapting our gliders to take the unit. We completed the conversions by 10.15pm., and went home where John found his missus all dressed up and waiting. In our excitement he had forgotten that he had arranged to go out! As I was working from 10.00am. on Sunday morning, we decided to go out at first light to try the unit out, provided the weather was OK. I rose at 6.15 to find the sky clagged in and a steady drizzle falling. Ignoring this I rushed off to the nearest all-night garage for a gallon of juice and proceeded to drag John out of bed just as dawn was breaking. With the aid of some Anglo-Saxon adjectives he persuaded me to go home and back to bed. "It was only raining a bit", I complained. By 11.00 the weather had cleared up and the sun was shining. John turned up at my shop complete with glider and trike and I decided that my staff could run the shop without me "just for half an hour", even though we were rather busy. I had negotiated the use of a four-acre field immediately behind my house for taking off so we rigged John's glider there, connected up the power unit, topped up with juice and were ready to begin. We were both eager to be first but wanted to be second so we tossed up. John won (or lost?). He strapped in, I fired up the motor and he was away up the field.

## The Brown Stripe

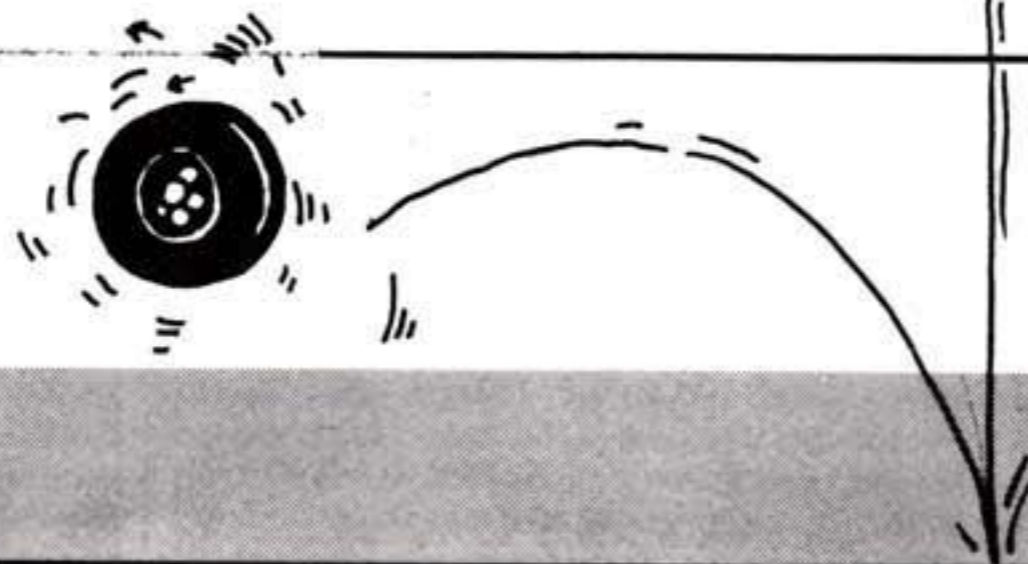
The rain had been falling heavily for most of the night and the field was not very well drained, and often frequented by a herd of cows. John ploughed along up the field with throttle locked full open and teeth gritted, raising great splashes of water, mud and cow dung, with me in hot pursuit shouting encouragement. Three quarters down the field and still on the deck he shut down the power and turned to taxi back. What a transformation! Attired in his Sunday best, complete with recently acquired ski-jacket he had a six inch wide, thick brown stripe from the top of his helmet down to his waist which had been thrown up by the front wheel. He looked a bit like a zebra and I nearly fell over laughing. After cutting a piece of plywood and wiring it on as a "mudguard" it was my turn. I repeated John's run along the field with muck and bullets flying in all directions but thankfully without the Zebra stripe to show for it, and with the hedge looming up I too had to shut down without lifting off. What were we doing wrong? I tried the other way along the field and with a tentative push out the front wheel began to lift but the hedge was too close to clear so another "abort" was called for. John's turn once again. This time half way down the field he lifted all three wheels clear for a moment. Still the damned hedge was too close but he had been airborne for about two seconds. What an achievement! The first man to fly. Eat your heart out Wright brothers. "Push out more", he says, so I did. Half way down the field I gave a hefty push and was suddenly flying. "Can I make it over the hedge this time", I thought. "No, maybe? Yes", then at the last second "No". I cut the power and pulled the bar in, hit the deck and using my heels to plough two deep furrows for the last ten yards, stopped with the nose of the glider shot over that infernal hedge.

## Lift-Off!

John's turn. This time he achieved a good clean lift-off and was climbing away nicely when he suddenly veered off towards my house and at the same time hit a patch of sink. Panic stations! He cut the power but there was not much field left to land in between him and the house so he pulled the bar in sharply



and hit the ground fairly hard. At this point the left hand back wheel flew off into the air, the kite dipped to one side and slewed round in a 360 on the broken axle. I suppose I should have been annoyed or at least disappointed but all I could do was laugh until my sides ached. We must have looked just like a couple of pioneers of aviation from the early 1900's. We did fix the unit and the next day found a larger field with lower hedges and had a couple of hours good flying so everything ended OK., but we have still not stopped laughing at our experiences that first day and it has given us a classic answer whenever anyone asks us about our machine: "Sky Trikes? Oh, yeah, we had one of those but the wheel fell off".







# JOHN LONG'S JAMES BOND

by Simon Murphy, D&S Condors

**The sort of powered hang gliding that John Long does is now almost over. A few of us experimented with keel-mounted engines flying prone on hang gliders, with various degrees of success. Now power on hang gliders has moved on to trikes, which don't have the pitch problems the keel-engines created. But John Long – a West Country man – achieved a number of successes on a powered hang glider, not least being the time he became a stand-in Secret Service agent, as Simon Murphy describes . . . .**

Those who have seen the James Bond Film 'Moonraker', will have wondered who undertook to fly the unusual scenes featuring a powered hang glider. It was not one of the much vaunted American pilots, nor one of Britain's better-known authorities in the art of powered flex-wings. United Artists chose to place their faith, and their consequent vast investment, in one John Long, from Somerset.

'Longer' does not really conform to the advertising executives' conception of the typical hang-glider pilot. He is 43 years old and it must be said that he

doesn't look any younger – nor does he look strong or athletic. Whatever he may lack in physical stature is amply made up for by his character. A born extrovert, John exudes confidence when dealing with people. Above all, he is a man of principle, and his friends know that he is a man who can be relied upon during hard times.

## LEARNING

One sunny day in the mid-70s John found himself standing on a Devon hillside with Brian Wright and Will Mills, manufacturers of Eclipse Hang Gliders. After watching their short flights down the training slope, it was inevitable that the fascination should take hold of him, and before long Brian was teaching 'Longer' to fly. He progressed through the novice and intermediate stages and was soon resenting the many non-flying days imposed by our weather. Not being one to accept defeat easily, John strove to maximise his air-time, reasoning that this would minimise the likelihood of his having an accident. One Christmas day he became the first man of the Devon and Somerset Condors to convert to prone, and he was also one of the first customers for the then remarkably advanced Midas.

When the powered Midas was undergoing development at Chargus, John put in an order, because he saw it as the passport to greatly increased flying time. Eventually Chargus decided against marketing their system, so John bought a Soarmaster and began attracting considerable local publicity with his flights. His televised exploits with the Midas added to his status as a celebrity in these parts, which probably began with his being the South Western 500cc Solo Grass Track Champion. A Company was formed under the name 'High Entertainment' and John undertook air displays at many functions. Things reached a pinnacle at the prestigious Yeovilton Air Display in 1978, during which John literally stole the show from the military pilots, and earned a standing ovation from the crowd.

## WANTED – STUNT PILOT

At about this time United Artists were searching for somebody to film their James Bond hang-glider stunts. They had originally contacted some well-known American pilots, but the deal had fallen through. Three separate authorities in the U.K. were approached, and all three recommended John Long as a competent and responsible pilot. In no time John was whisked up to Pinewood to dis-





cuss the job, and thought it was possible. Soon he found himself in Paris with Mr 'Cubby' Broccoli, Lewis Gilbert and Roger Moore. Unlikely as such a meeting may seem, Longer's rustic Somerset charm won them over, and before long he was in Argentina, hovering over the fearsome Iguassu Falls in a helicopter. The plot called for the pilot to fly along the river at a very low level, and to dive over the lip of the Falls and if he was still intact then to fly on down the river to land on an obscure and rock strewn beach. John reasoned that if butterflies could flutter about at the edge of the falls, so could he. Nobody thought to advise him that eighteen people had perished in air crashes at the falls. Agreement was reached, High Entertainment undertook to fly the scenes.

In terms of equipment, the film-makers had already supplied no less than seven Soarmaster-equipped U.P.s! John devised an air-filter to guard against water ingestion into the engine, and made up several of his aerofoil-shaped 2½ gallon kingpost petrol tanks. Purchases included new harnesses and parachutes, Police crash helmets equipped with radios, and Dipsex Altimeters. Perhaps his greatest quandary was selecting those people who would accompany him. His budget allowed him to employ a second pilot, and somebody to look after all aspects of ground work. The latter choice was simple, once Pete Baylis had persuaded Westland Helicopters Ltd., that they could do without one of their Senior Quality Control Men! Pete is 38 years old, and retired from hang-gliding after earning the name 'Broken Wrist Pete'. He always accompanies John to air shows, and the two men share a mutual trust which would prove invaluable in South America. In his job at Westlands Pete is concerned with all aspects of Quality and its impact on flight safety, and is imperturbable when faced with problems of any kind.

### NATURAL EXUBERANCE

As second pilot John eventually chose Steve Fensome. Steve has the dubious privilege of being the only pilot to have had his Pilot status removed by the B.H.G.A. However, his natural flying ability is quite unsurpassed. John regards him as one of the greatest pilots he has ever seen, possessing uncanny physical co-ordination. He could never win a League event – even if he arrived at the right site he would be too late for briefing! John intended to keep Steve's natural exuberance in check, while making certain that he had done enough planning and thinking to ensure the survival of both pilots. To this end he was to spend many nights in his hotel room scheming, rather than living it up.

### HELICOPTER HANG-GLIDING

Just after Christmas 1978, this little team was installed in the Hotel International, Argentina. They immediately went to work, and immediately hit problems. Even the athletic Steve Fensome had trouble getting airborne in the excessive temperature (120 °F) and on his second flight the glider overtook his take-off run and put him into hospital with a half-severed tendon. There was no way John could coax the underpowered U.P.s into the air, without assistance, so he devised a launch vehicle – a pick-up with the back boarded over. Standing on this platform he was able to lift-off at a ground speed of 48mph, only twice out of eight very hairy runs. Climb rate about 30' per minute. Various blind alleys were investigated, including one which saw Longer and one of the U.P.s suspended from the helicopter on a 200 ft length of 1/8th steel cable. John had only agreed to this drastic step on the grounds that he was to be taken no higher than ten feet to simulate flight, but the pilot shot up to 600 ft, the glider spun, swung and behaved so erratically

that no film resulted. But they did have one very dizzy, sober hang-glider pilot.

With costs running at £14,000 per day, the film company were becoming impatient, and John was flown all the way to Rio de Janeiro, only to be told 'Fly, John' and 'Fly Low'! The gliders were moved to an International Airport in Brazil, some ten miles from the falls. John ran hard, took off then enjoyed a bumpy ten mile flight across dense jungle and began a pass down the river towards the fifth largest waterfall in the world (Niagara is sixth).

### PEACHY

The radio crackled with the words 'Me Heap Big James Bond', the cameras rolled and John dived the glider over the lip of the falls, at 20 ft, flew over the gorge sinking slowly towards the 1,000,000 tons of water per second rushing below. It was here that the man from Somerset found that he had insufficient power to climb over a fast approaching rock face flanked by falls, so he chose to abort on to a jungle ledge wiping both leading edges off in the process. John was quite unscathed, but glad to be winched out by the helicopter because he is terrified of snakes! The 45° dive into the jungle was used in the film, but James Bond pulled off a peachy landing. This was not the only part of the film to be simulated, since one of the crucial cameras had not been loaded with film, so some shots were taken at Pinewood using a model. John is adamant that much of the best footage was consigned to the floor of the cutting room, and feels that it would make great television entertainment if he could only get permission to release it.

In keeping with the film industry's tradition of shooting the last bits first, the team were now moved to Miami to film the sequence in which the glider takes off from the speed boat. This was comparatively relaxing, mainly because John used his experience with the pick-up to design a release system for the boat. This enabled the pilot to lift off at just the right air speed, and John and Steve (now almost recovered) had several flights each before there was enough material on celluloid.

### RISK

Whatever the glamour associated with making films, John was well aware that he was being paid to risk his life, and he was expected to do just that. The film company had a large investment at stake, and they demanded a full return. The total budget for the film was in the region of £13,000,000.

Once back in England 'High Entertainment' had many bookings for Air Displays. By now John had fitted his Soarmaster to an Eclipse Super Eagle (G-BGWZ), and altered his displays to incorporate 'The Long Jump'. This was a much-modified Mini pick-up, which John feels permits safe take-offs in all reasonable conditions. The stall-warning indicator on his 'Arbee' A.S.I. is adjusted so that when the tone cuts out the pilot knows he had sufficient air speed to lift off. The Long Jump has proven a great attraction, and at the 1979 Yeovilton Air Display John was given the prime spot – immediately preceding the Red Arrows.

Once again he was a great success, and is now scheduled for several military airshows. He has the necessary £750,000 Public Liability Insurance Cover, and with up to 40,000 people seeing each of his performances his name is becoming known to an ever wider public.

John Long is an excellent ambassador for our sport, both in the air and on the ground. He is often performing under the critical gaze of most of the Aviation Authorities, and whilst the advertising executive may not regard him as the archetypal hang-glider pilot, his conduct reflects most favourably upon the hang-gliding and ultralight movements.



In the middle of 1980, BHGA Council, concerned about membership figures which appeared to be levelling off, and even falling, asked Chris Corston to do a survey of one whole month's figures. Chris sent out a note to those who didn't renew in August, and had more than a hundred replies, from official figures of 177 who didn't renew their subscriptions. In the survey, Chris asked for a questionnaire to be returned, in which former members gave their reasons for dropping out of the BHGA, or hang gliding. There were about 40 who treated the questionnaire as a reminder, and did in fact renew. It's interesting, though to look at what the rest said.

- a) Lack of sites in my area 34 (23%)
- b) Sport too risky 17 (11%)
- c) Subscription too high 6 (4%)
- d) Change of occupation 16 (11%)
- e) Family commitments 21 (14%)
- f) Other interests 26 (17%)
- g) Higher financial priorities 30 (20%)
- h) Other reasons.....these included travel abroad (21), broken leg, British weather (3), wife left him, gone conventional flying, nowhere to keep glider, boredom (2!), lost interest, injured, unemployed (3), "only flew as ego booster", a dislike of the Pilot rating system, and the Joe Soap syndrome.

Some of those who left went into a detailed explanation. One said... "I am bored with the same old sites and scenery. Hang gliding is as safe as you wish to make it. I've left because I subscribe to 20 other organisations, and I've now bought a light aircraft..." ...this pilot said he had 150 hours on hang gliders, with 2½ hour longest flight, but he reckons his conventional aircraft is more of a challenge.

Another ex-pilot, this one a girl (London), writes... "My school is 120 mile round trip from home, and weather conditions proved so unpredictable that I have only ever done a couple of short solos, and I eventually decided to call it a day. I would be interested in buying WINGS! if it appeared on public bookstands, or by subscription, at a reasonable price but at £10 for non-flying members you are really pricing yourselves out of the market (I would think £6 p.a. max would be acceptable... that's still 50p a copy)..."

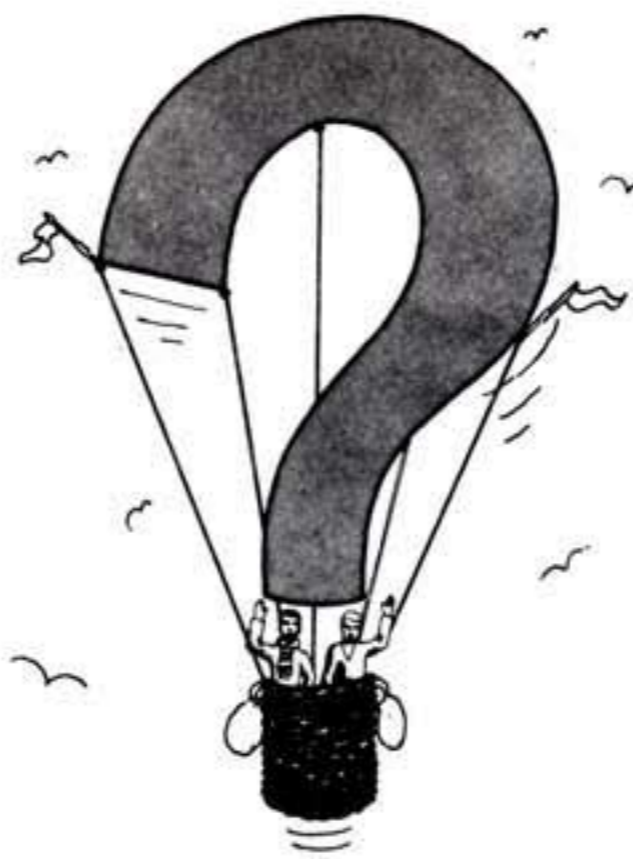
A third (London) writes... "Was very interested when first started. However, interest faded because, as with many unmarried people, I live in rented accommodation, and have nowhere to keep the glider. Hang gliding is very much an "all day" venture and therefore I could only do it once every month or so. Having spoken with many other people on the course (Southern Hang Gliding School in Brighton) who obtained at least P1, this was very much the case with them too. It is a good sport, I have a car, but the two main problems are that it's a loner's sport and it's awkward keeping a kite. Let's have a kite which packs compactly and perhaps a bit more publicity to educate the pessimists - I'll join up again 'cos it's good fun (keep me informed if anything happens)..."

..... "I had 77 flights in 2½ years, with a total flight time of 10 minutes. This indicates the difficulty of building up flight experience in an area (Buckinghamshire) which is (a) sparse of sites, and (b) desperately overcrowded when the wind is right. You can imagine only too well the actual time wasted on the top of the hill to get that precious experience! Should I ever move from my present location to another part of the country, which offered better facilities without the hassle of overcrowding, I would certainly take up the sport again".....

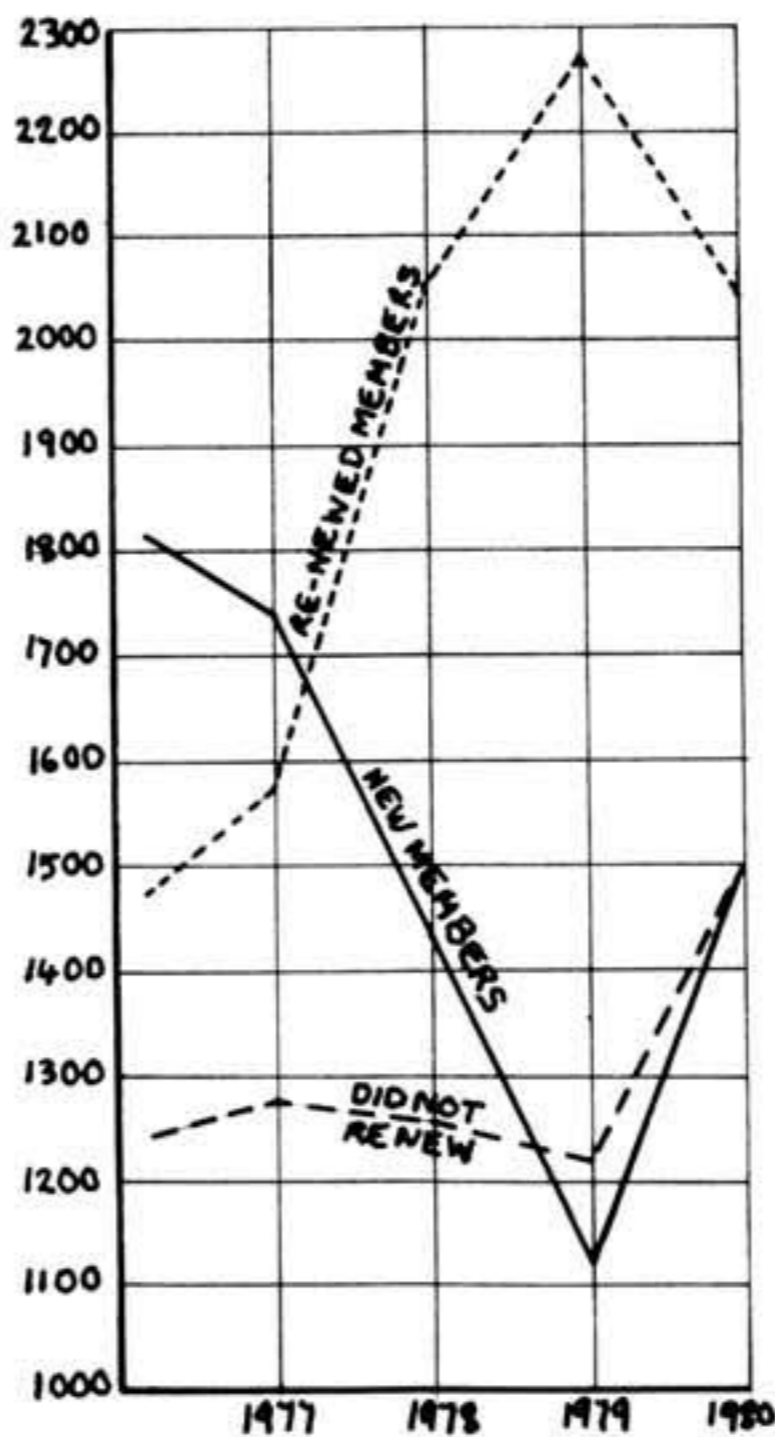
.... "(hang gliding) took up too much time for only a small amount of pleasure".... writes an ex-member of the Sky-surfers club on the South Coast.

.... a girl from south London said.... "I'm sorry I haven't renewed my membership, but I'm only a beginner and would never consider buying a glider, as I don't think I have the knack!!....."

.....from Cornwall, a former member



## WHY ARE THEY LEAVING



writes.... "I let my membership lapse mainly because it frustrates me to receive the mags when I hardly have time to read them, let alone fly. Bloody modern lifestyles!! Hopefully I'll renew in a year or two...."

..... an ex-member from Newcastle Upon Tyne .... "The main reasons for not continuing membership are (1) Having already been a qualified parachutist, gliding instructor PPL, I then enrolled with the Cumbria Hang Gliding Centre under Roger Middleton and successfully completed a 4-day course to P1 level. I returned to do the final day some weeks later because of bad weather. Having now been presented with the BHGA Elementary certificate I then found that when I requested from BHGA a Pilot One Certificate, that it did not validate this, and that I would need to start all over again. Having spent the course fee plus accommodation, plus travelling from Newcastle to the Lake District and back, and then be told that it did not count did not appear to me to be a

very fair decision. (2) The other reason I've given up is the Pilot Rating System itself, e.g. Pilot 2. Five flights from five different sites. Surely if a pilot is qualified he should be able to fly from any site, obviously adhering to local know-how. Learning to drive a car does not preclude you driving in any part of the country! (3) Personally I feel that items like air law, meteorology and principles of flight should be part of the initial training (as was the case with Roger Middleton) instead of being left until later stages...."

.....from Northumberland (which one would have thought packed with good sites), a father-and-son team gave up hang gliding.... "When my son and I decided to take up the sport we did not really understand the importance of wind direction on hills. We live in a hilly area, but unfortunately the wind travels the length of the valleys and we are unable to fly. We did think that powered hang gliding would be the answer but we have been unable to find out anything about it. I have written to the BHGA, to the powered hang gliding section, and to other people but to date have gained no information i.e. the cost of a powered hang glider, instruction for use, and whether our hang glider (Flexiform Skyliner) would convert for use. Who are the agents for powered hang gliders? These were a few of the questions, but to no avail. We paid approximately £480+ for the glider. It has flown approx 1 hour and is now stored. We would like to continue to fly but as to the area we live in it would have to be powered...."

.....from Nottinghamshire, a novice who retired.... "Cracked wrist sustained in a little bump upset me, my agent and various clients (I'm a freelance illustrator). It was suggested that large, long-term jobs might go to people less likely to injure relevant parts of their bodies at weekends. Get the picture? - I did"....

.....An untypical (the only one) criticism came from a former Devon flier.... "The sport is becoming too cut-throat and we've lost the old flying spirit. Instead of people helping each other they are out to do each other down".... this pilot had more than 200 hours on hang gliders, longest flight more than 3 hours....

.....in a huge (6-page) reply, an Old Age Pensioner from Kent attacked the cost of hang gliding, the magazine (for being too technical), British weather forecasts, the "image" of the sport, safety, and says he's getting a lot of stick from his family of a wife and 5 children. He ends.... "To sum up I think we need to cut the cost, to stop corner-cutting, greatly improve safety, produce a better image to the public and produce an interesting and entertaining and informative magazine. In the meantime.... how about a special rate for OAPs?"....

Any keen flier can supply an answer to the queries raised by those who have left. With most of them, though, it's too late. There is the possibility that many of those who've moved on are rationalising their reasons for giving up hang gliding.... I think a lot more leave because of the risk than those who admitted it. But membership figures in the BHGA are disturbing now, as the graph shows, and the trends are none too healthy either. It would be worth hearing comments on this subject.

Brian Milton

### SUMMARY OF MEMBERSHIP TRENDS - 4 YEARS

(first 11 month period)

	1977	1978	1979	1980
Did not renew	1,274	1,256	1,225	1,492
Renewed	1,571	2,047	2,278	2,040
New	1,738	1,427	1,112	1,498



## HANG GLIDER SAILPLANE MID-AIR AT GRENOBLE

Writing in the January edition of 'VOL LIBRE', Rene Coulon reports that a mid-air collision took place above the slopes of St Eynard, near Grenoble. A Southdown SIGMA hang glider flown by Bernard Charles-Pellat was struck by a sailplane flown by a woman, Geneviève Remis. Rene reports that the collision was almost head-on, the pilot of the hang glider being struck on the head by the fin of the sailplane, which went on to cut the control bar in two, and then tear the pilot's parachute away from his harness.

Bernard seems to be a very lucky bloke. His helmet saved his life when the fin struck him, and despite the fact that the SIGMA is a cross-boomless model, the nose assembly held together, and glider continued to fly, "albeit", as Rene says, "with an unaccustomed amount of dihedral!"

Keeping his cool, Bernard was able to pull the parachute pack back up to him by its bridle, and separate the inner bag. Unfortunately, the parachute deployed badly, but nevertheless, the combined drag of the wing and the partially-inflated parachute was sufficient to bring him down to a not-very-hard landing in the trees.

The sailplane fared worse. The collision detached the cables to the empennage, and it inverted violently. Geneviève took to her parachute, which deposited her on the roof of a hotel some hundreds of metres away from the "pulverised" aircraft.

Making the point that, given the disparity in flight speeds, the hang glider could not have been said to fly into the sailplane, Rene notes that the hang glider pilot's life was saved both by his helmet, and the fact that the SIGMA is so well constructed that it held together long enough for him to recover his parachute and deploy it. Rene appeals to all pilots to stay aware of other aircraft in their vicinity, and try to anticipate the result of any manoeuvres they may make.....

(Report by Tony Fuell)

### December 500 Club Draw

1st	J. S. Higham	£51.40
2nd	R. J. Wilson	£25.70
3rd	R. Glanville	£12.85
4th	B. Blore	£ 7.71
5th	C. Anderson	£ 6.42
6th	K. Dickinson	£ 6.42
7th	P. Pounder	£ 5.41
8th	B. Brooks	£ 5.41
9th	A. Wilkinson	£ 3.86
10th	M. Southall	£ 3.86

£128.50 prize money and a like amount for B.H.G.A. Funds. Would E. J. Weaver please contact the Treasurer about 2 prizes.

P. G. Moss

B.H.G.A. Treasurer.

# NEWS EXTRA

## SECRETARY'S NEWS

from Chris Corston

### 1981 AGM & Conference 7th & 8th March at Warwick University

BHGA Council Members need your views and ideas to guide their decision making over the next year. If you care about how the sport is run, be there and make sure that your Club sends a delegation. The week-end will again be hosted by the Mercian Club at Warwick University due to the popularity of this venue. Proceedings will begin at 2.00p.m. on Saturday and shortly after this the meeting will split up into groups to discuss all subjects that members and Council want discussed.

An evening of festivities is being planned by Barry Blore (more details in next issue). Manufacturers, Schools, and Equipment Suppliers will again exhibit in the Trade display.

Sunday will see the AGM proper with reports and conclusions reached on each of the subjects debated on the previous day, elections to fill Council vacancies and voting on any other proposals.

### Council Vacancies

At each Annual General Meeting one third of the elected Council Members and the Treasurer retire. At the time of writing it was known that Percy Moss will seek re-election as Treasurer, and that John Hunter would resign and not seek re-election. There will be two further vacancies. It is also known that Ted Frater, Airspace Co-ordinator, will stand for election.

### Topics for Discussion

Whether or not you can attend these should be notified to the BHGA Secretary ASAP. So that they can be sorted easily, please send a SEPARATE SHEET OF PAPER FOR EACH SUBJECT with a brief outline of your views on it. The person leading the discussion on a subject can then make known these submitted views.

### Nominations for Council

Will those wishing to nominate members for election to Council please send their nominations to the Secretary. Each should be seconded and accompanied by the nominee's written agreement to accept office if elected. Council members are not just expected to attend Council meetings. They are expected to become responsible for one of the Associations's fields of activity. They should be enthusiastic and prepared to work.

### Full Details and Voting Slips

These will appear as a centre page insert in the issue of WINGS! that will be despatched to members in early February.

### Proposal for a Change to the Constitution

On 17th December the following proposal was received by the Secretary from Marc Asquith and seconded by Mick Tomlinson. The proposal is that:-

under VOTING AT THE ASSOCIATION'S MEETING there shall be a third paragraph

"iii shall be by individual members holding voting slips given to them by other members who cannot attend".

Copy for WINGS! had to be despatched on the same day and the Secretary feels that an amendment to the above might be required as follows:-

"shall be by individual members in membership classes (a) (b) (c) and (d) holding voting slips given to them by other members who cannot attend" AND that a further paragraph be added to the same section thus:-

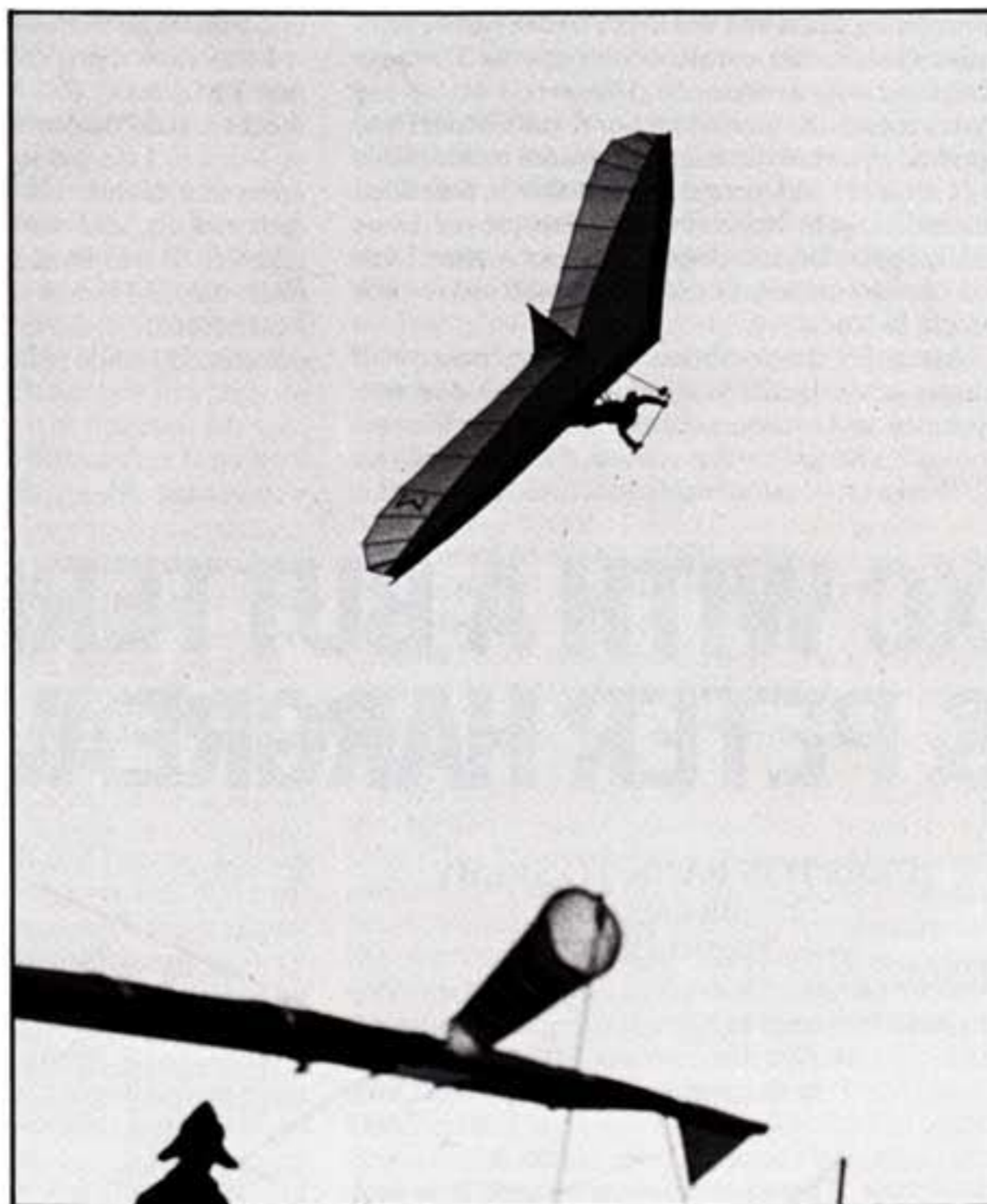
"iv Individual members in membership class (e) shall be entitled to vote if they are Affiliate Members who belong to an Affiliated Club Registered with the BHGA".

## NORTH YORKS SUBSCRIPTIONS

North Yorks Sailing Club subscriptions for 1981 are unchanged. Full member (restricted to local residents) £10.00, Associate Member (must be members of another club) £8.00, Visitor (membership valid for 1 month) £2.00. Subscriptions include Site Guide and list of contacts. All applicants must be BHGA members. Please apply early, giving full details, including BHGA membership no. to the Membership Secretary, Harry Hodgson, 473 Thornaby Road, Thornaby, Cleveland TS17 0BN.

## BHGA COUNCIL UPSET

Concern was expressed at the last BHGA Council in December about the wording of an advertisement in November WINGS! for a Southdown Lightning. The ad said "P1 Certificate or better" to fly the Lightning, which the BHGA's Training committee Chairman, Colin Lark, took exception to. He showed Council copies of letters which passed between him and one of the Southdown directors, Ian Grayland, on the subject, and quoted evidence from other members of the BHGMF that the Lightning was, in his opinion, not suitable for P1, rather more suitable for P2 or better. In any case, BHGA Council resolved, in future WINGS! advertisements, "that any reference by manufacturers to the suitability of gliders in terms of BHGA Pilot Rating must be approved by BHGA".





# Flight Reports



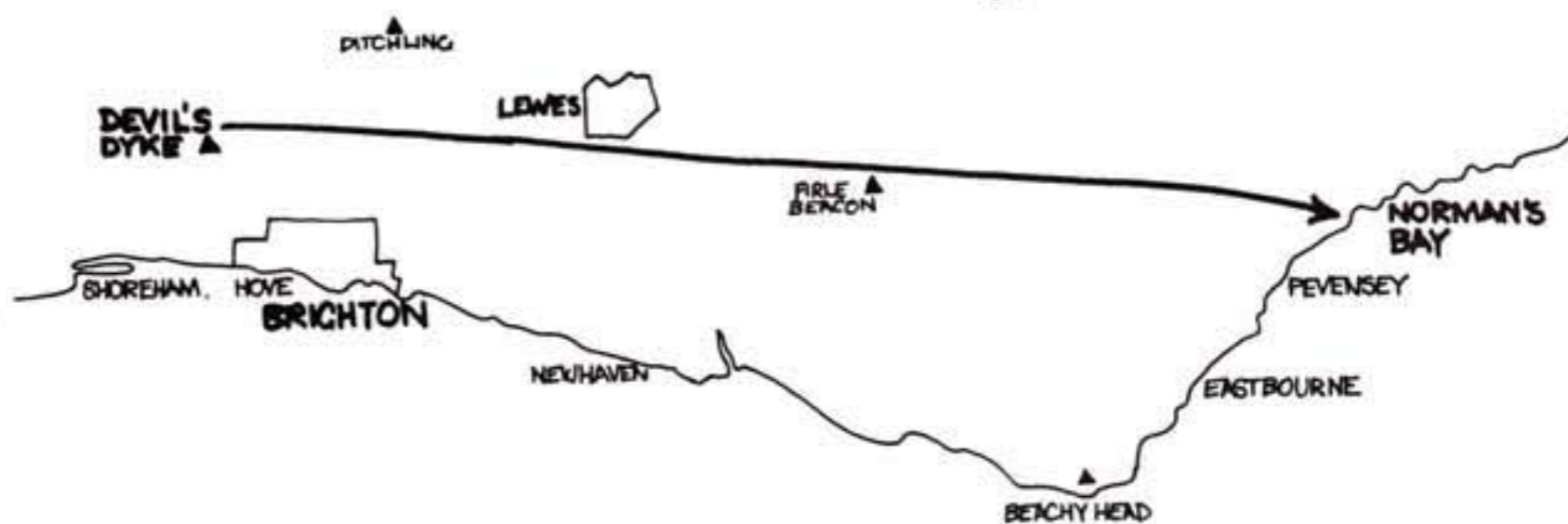
## DEVIL'S DYKE to NORMAN'S BAY

by Mike Robertson

*There's a big fight going on over the Southern Hang Gliding Club sites, most of which are only a few miles from the sea, to take away a record created by Johnny Carr more than a year ago. Johnny told Wings last year he'd flown 27 miles; in fact, it was 28, and since then, a number of pilots have had a go. The difficulty is, the proximity of the sea... sites like Beachy Head are on the coast, with lift off the sea, while Firle Beacon gives good lift but if you hop over the back you can only make 3 miles or so before running into Brighton and water. The best of the SHGC's sites is Devil's Dyke, where those who dream of XC go to take Johnny's record off him... one of Johnny's opponents is Mike (The Dentist) Robertson, and this is the story of how he (nearly) succeeded...*

It looked like yet another useless Wednesday morning as I looked out to check the conditions. Due west, probably unsoarable at Mill Hill and the Dyke, just like the week before. Soon however a few wisps of cloud showed there was a hint of northerly component in the wind direction. This was enough to inspire a look at the Dyke in case it might be soarable long enough to connect with a blob and go with it, as this gives the best downwind track from any of our sites. The sky was still very clear when I reached the Dyke and the few radio-controlled models were not doing that well because the wind was so westerly. However I set up my Atlas in case the conditions improved. When I had finished the wind direction had veered considerably so I took off and gained about 400 feet. I decided immediately to leave, but the blob proved to be really lop-sided and degenerated soon after I followed it downwind. I headed back with just enough height to land.

After this the conditions were very poor, with hardly any ridgelift to speak of and the direction swinging south of west occasionally. Bruce Hudson took off and got drilled, but on the way down he worked a bit of lift off the field. I decided to see if it



would build into a worthwhile blob, and took off. Amazingly it was building well, and after hunting around for a good core left with it and headed due east from Devil's Dyke, skirting north of Hollingbury, and after re-centering a few times I reached cloudbase at 3,500 above take off.

I allowed myself to climb about 1000' up into the outer portion of this cloud emerging at each turn so that I would not get totally engulfed. The sensation was just staggering as the cloud seemed to come and go at such speed, yet I was circling at min sink. I was now freezing half to death, despite the gloves and ski-jacket I was wearing, and decided to cut across wind to reach a very nice looking cloud-street which had formed, to fly over Lewes and beyond...

However, under this street (I was below cloudbase by the time I reached it, due to the sink I encountered on the way) there was nothing more than reduced sink, so I turned in line with it, hoping to encounter a core of lift. The cloudstreet was probably decaying. I passed Lewes, and Mt Caburn in 2-3 down all the way.

I was now flying over the Firle road and I felt that I had really lost it when at about 500' above the main road the vario flickered a little and settled at 1-down. I circled for about a minute in desperation and blundered into a strong core, which I centered on, and worked back up to 1600' above take off. It was most satisfying to watch the Firle ridge sink and merge with the background, though I unfortunately did not reach cloudbase. On the other hand I could maintain in zero sink for minutes on end, so I was satisfied with that. By now I was over the reservoir in front of Firle near Selmeston, looking at very familiar scenery but from the other way round. Also visible was the Long Man of

Wilmington, where Ron, Johnny Carr and Dave Bluett had flown to, the day before I went to Canada (to my chagrin, as my glider had been broken down to go on the plane), I was to get my own back on them now. I circled for about 45 minutes with minimum bank. The wind had dropped to a zephyr here, and my groundspeed was very slow. I wondered if the vario was working as it registered zero all this time, but the altimeter confirmed the vario by not changing from its 1600' reading.

I could not believe my luck when Eastbourne came into view beyond the Long Man and I realized a new club record was on the cards. But where exactly was Cooden Beach, Johnny's landing site last year? I decided to head for Bexhill to make sure, but obviously the zero sink was localized along the wind direction I was following; it soon became one down as I veered very slightly north, passing between Polegate and Hailsham. I quickly returned to my original track, but now the lift was decaying, and I descended gently towards the coast at Pevensey Bay, looking down on the criss-cross streams and ditches of Pevensey Levels glinting in the misty sunlight. As I reached the main coast road at about 300', I hit a tiny blob, and worked it just enough to cover another mile, and landed beside a PUB (where else?) at Normans Bay on the coast (just after closing time!)

A punter walked up somewhat perplexed.

"Which way is Cooden Beach?" I asked.

"Oh just about a mile up the road," he said, pointing towards Hastings.

Well, never mind. Johnny's record still stood, but I felt very lucky to have flown this far after nearly losing it at Beddingham. Twenty seven miles to be exact, calculated from the O.S. references.

## XC WITH A BUTTERFLY & PETER HARGREAVES

by Tony Hughes

**CARLTON BANK TO SELBY**  
33 miles approx.  
August 1980.

I left Cringle at 2.15pm with 1,500 ft in 4-5 up. The thermal dissipated so I flew to Chop Gate where I picked up another thermal. As I flew west of the Mast I saw Pete Hargreaves scratching Chop Gate ridge, he looked hopelessly low. I picked up 2,500 after being 500 above the ridge but could not reach cloud base. There were only areas of 0-2 up so I

headed onward but the drift seemed NS rather than NW and very slow. The lift was getting very patchy when Pete appeared about 2 miles downwind, going up. Circling in weak lift he soon caught up and we flew about half a mile apart, too far to be any help to each other going up and down until I hit a thermal near Ampleforth Forest, and Pete was again getting dangerously low! These roles were to be reversed several times during the flight. I then encountered severe sink (6-8 down) and very soon lost all the height I had painstakingly coaxed. I

knew with sink like this there must be a thermal close and there was, just in time to get me away from a landing I had planned in the grounds of a local Stately Home.

I had used bits of thistle down to help me centre on thermals before, but this one I shared with a cabbage white butterfly, its wings outstretched! Centering on the butterfly (not as easy as you may think) got me back up to 2,400 where I was to meet up with Pete again, this time to share a large area of lifting cloud for over an hour. This took us slowly to our best height of 4,700 and slowly a city appeared in front of us. When I recognised it as York I felt well pleased only to see Pete leave the now patchy lift and head out over the city, trying to pick up late afternoon lift from the buildings. This did not seem to work and although he didn't seem to lose much height I didn't risk it and stayed in 0-1 and waited.

As York slowly drifted by I decided to go for a cloud to the South. I looked down to see Pete



really low and thrashing around at what seemed to be an impossibly low altitude. I didn't think he could possibly get out of this one so late in the afternoon.

Having once again lost most of my height I was dismayed to find that my cloud did not deliver the goods so I turned slightly cross-wind and at the last minute picked up a 2-3 up which slowly blossomed. Circling up to 1,500 I was amazed to see that striped Cherokee again on my tail. What do you have to do to get rid of this guy, I wondered! But Pete lost a lot of height trying to make distance and by now (5.30) the lift was getting weaker, so losing altitude was definitely to be avoided.

In the distance I could see three large power stations and I began to wonder how far I could get.

I had quite an interesting view for an instant as Pete flew below me on a straight glide and directly below Pete was a white sailplane searching for somewhere to land!

After seeing Pete land I headed South over Selby and could just make out the Humber Bridge to the East. Circling over ploughed fields proved to be

fruitless and so I landed in a school playing field at 5.50pm exactly 4 hours after take off.

**Tony Hughes**

Postscript: Many thanks to Fay, who waited patiently for my phone call and also to Mrs Clarke and her daughter for taking me in and aiding my recovery.

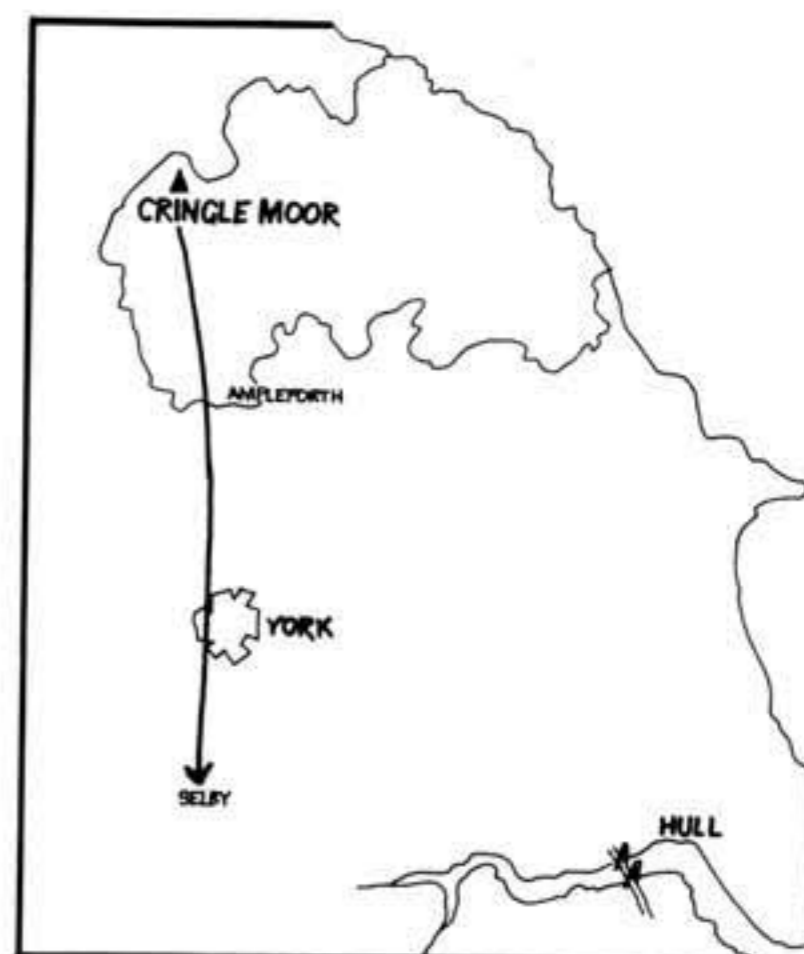
**Glider: CHEROKEE II**

**Equipment: Birdman Harness**

**Chad AVT FLIGHT DECK**

**Conditions: NNW 18-20 inversion at 4,000 ft. 4C at 3,000. Ground Temp. 17C.**

**Best height: 4,700, lowest height recovered from 1,000 AMSL.**



## THERMAL FLYING — A Winter Reminder

Len Hull, who's now collecting information from all of you about travelling abroad, so as to become the BHGA authority on the matter, appeared in Wings! early last year with an account of flying in wave. Len wrote as a self-confessed novice. Now he's one of the 16 pilots fighting for 13 or maybe more places in the 1981 League, and as the following flight report shows, he's not going to be a pushover on XC tasks if he can get past whatever Mickey-Mousers might get run. The following XC occurred last August, and which appeared later in the Sheffield Newsletter . . . .

. . . The day was forecast to be light and variable, but at 9am, clouds were moving from the west at a reasonable pace. I launched at Bradwell at 9.30 and had a good thermal flight until the clouds over-developed, and the wind slacked off. After noon the sun broke through again and everyone got some good thermal lift. At 1650' I was way out in weak lift. The wind had dropped to 8 mph or less, and it was possible to stay with the lift right back over the moor to Abney, returning to the edge without difficulty. I considered striking off X-C, but directly downwind the previous cloud overdevelopment was still present, and there was very little sunlight. I decided against going for it and top landed.

Sometime later, at around 3.30pm, I was really kicking myself — it was warm and sunny with good clouds, but the wind had totally gone. Shot my chance for today, I thought!

Several pilots went down although most seemed to encounter some thermal lift on the way down. I clipped in and watched Ian Thomas launch. He went up slightly from take-off and was obviously on the edge of a thermal. I sprinted off immediately, found Ian's thermal, and began to 360 in 2/3-up, drifting back and forth along the edge to stay in the strongest lift. At 1000' I was up with the sailplanes and was able to outclimb all but two. They were very good indicators and we all thermalled together for a long time. The lift seemed to be all 2-up but quite smooth. At 1500' it dropped to zero.

We were under a raggy looking cloud that was obviously just about finished, but downwind it was bright and sunny and there was a cloud street beginning to take shape. Although it wasn't very well developed, I decided to give it a try (a) because I could not see it getting any better, and (b) I'd had enough flying for one day anyway! I thought that

the lift wasn't strong enough to keep me aloft for long and by now there was zero wind so I wouldn't be going far anyway! All the same, I thought, I'll go. Back over Abney and Highlow Hall I was in 1-up, doing slow wide 360s and concentrating on staying in what lift there was. I was still at 1600' and when the sailplanes left me and headed back to Camphill I tried to concentrate on the clouds and not the ground below. After what seemed ages I was relieved to see the altimeter break 2000', but was disappointed to realise that I could see Bradwell quite clearly. I was getting nowhere. I turned downwind and flew along the cloudstreet and straight out of the lift, so had to turn back into wind to find it again. I was concerned not to lose the weak lift until I found something stronger, because I had been caught out before by the high ground over White Edge and Topley and wished to have some height in hand.

Over Millstone Edge and Hathersage I thought I'd got it sorted — 3/4-up and 3200' of height. I relaxed, widened my turns, gaped around at the view (which was magnificent) and lost the thermal! Now I was heading for Owler Bar, pulling on speed through 6-down and watching the altimeter unwind.

"Blown it again" I thought.

### STUCK

Over Curbar Moor and Barbrook Reservoir I was down to 700', and deciding which road to land next to. I looked wistfully at the cloudstreet which was now impossibly high, and thought "Well I've gone further than I expected to anyway". At 600' the vario squeaked and moved to zero. I started a wide flat turn and found 1-up. Carefully I began circling, but could only maintain height. Never mind, at least I wasn't going down.

I flew for 30 minutes over Curbar Moor, upwind, downwind, E&W, N&S. I was stuck! Nowhere could I find anything more than 1/2-up, and I'd only just managed to break 1000'.

Eventually I headed NE towards Topley where the sun was brightest and where the edge of the cloudstreet was best defined. This gave me the necessary 2/3-up and it was with relief that I climbed back to 2200' and scuttled back under the cloudstreet which minutes before had seemed way out of reach. (At no time during the flight did I reach cloudbase, because the thermals were just not strong enough to make it possible.)

Now I could see the whole of Sheffield off to the north. Holmesfield was ahead with Chesterfield beyond. I had enough height to break out of the Peak District — a surprisingly difficult thing to do on X-C because of all the surrounding high ground. As I flew over Owler Bar I could see that my relative height would now be increased, since I was approaching lower ground. Dronfield was now 2500' below and to my left and I was tempted to fly crosswind to reach the built-up area, hoping to find lift. However I resisted the urge to pull on speed, and get cracking (for some reason on X-C one always piles on speed to get somewhere, and it takes a real effort to stay on minimum sink and think things out.) One wide 360 made me change my mind. Downwind I could see lots of cornfields, and the clouds were in a direct line overhead. I had now been 360ing for over an hour. I was tired and my legs were aching from pushing out on the stirrup . . . I find it aids the concentration . . . a bit like straining I suppose! I decided I had to get on with it once more, so I pulled on to max glide and set off downwind. I headed for the Dronfield bypass, intending to pass over the cornfields to the north of Chesterfield. Of course it was "blow it" time again! Down to 600' and cursing, I had selected a golf course to land on when I was rescued by just two cornfields . . . 1/2-up and extremely careful 360s . . . it's amazing how flat you can make your turns by holding your breath. I drifted over the bypass and slowly climbed back to 2200', whereupon I could see masses of cornfields downwind with clouds dead overhead. Things now became much easier because I had discovered the best lift was off to the north of each cloud, and I was able to max glide downwind until 1600' showed and then circle slowly back to 2000'.

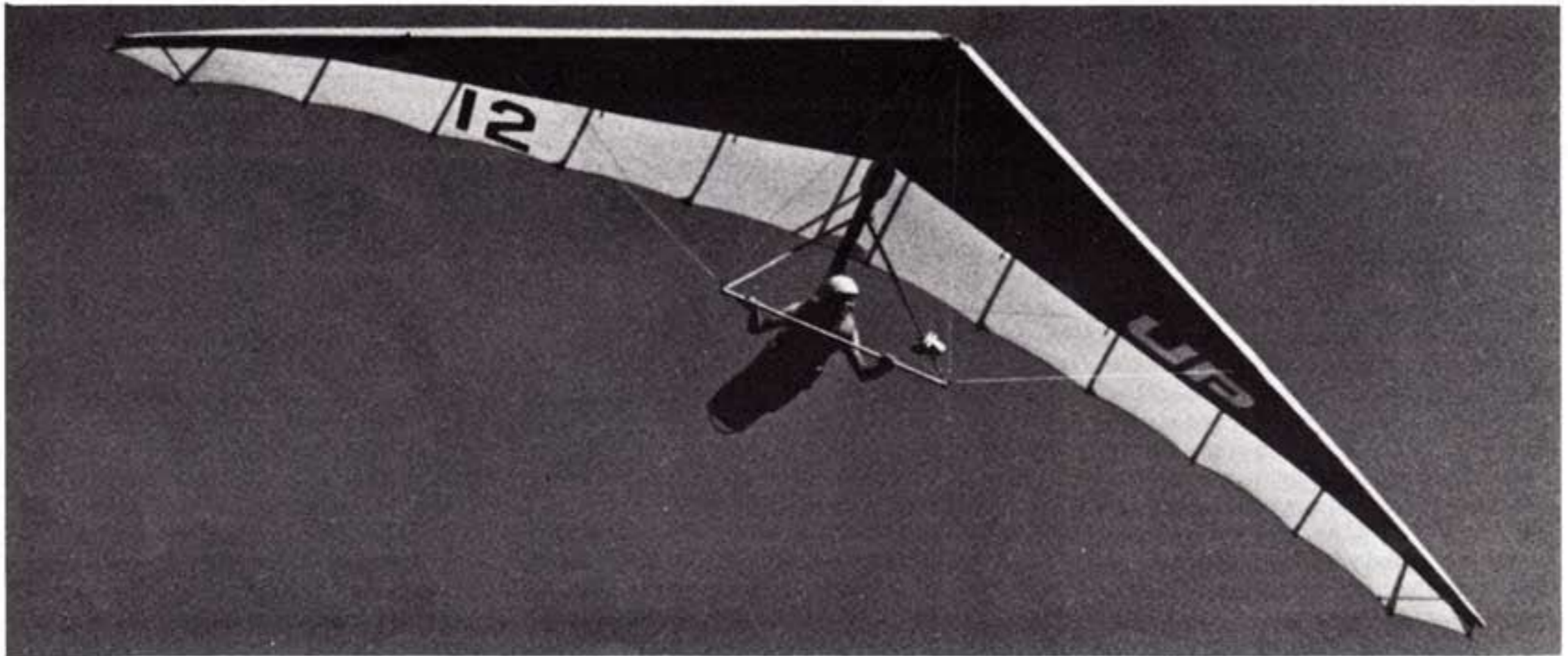
I was really enjoying the view now, looking for the crooked spire of Chesterfield church and trying to spot the M1 which I knew would be downwind somewhere. Lots of work was going on in the fields below, farmers no doubt frantically trying to snatch hay over the Bank Holiday in the brief fine spell. I was joined briefly by a lone swallow at 2200'. He must have been pursuing insects up in my thermal! I also overflew 4 separate cricket matches, and not once did I see any faces upturned. What an unreal wonderful silent pursuit is this sport of ours, when we can skim overhead and remain unnoticed by those confined to the ground below!

— Len Hull



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Which new glider has the best record in XC flying (remember Owens Valley)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Which new glider has the best record in sink rate flying (remember the US Nationals?)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Which new glider has the best record in high speed flying (remember the American Cup)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**REPORT ON 1980 INTERNATIONAL  
HANG GLIDING COMPETITION,  
BEPPU, KYUSHU, JAPAN  
- 3rd/14th August 1980,**

Our experience of flying in Beppu is virtually nil as poor weather precluded any flying at all until the morning of the last day. Low cloud and rain obscured the take-off area and only three heats were able to fly on the morning of 13th August before the weather clamped down again. Derek flew for approximately eight minutes as he was in the first heat and Jerome had a three minute flight from 150 ft. above the landing area. There was, therefore, no competition.

There were eighty-four entrants in all, the majority being Japanese with the balance being made up of sixteen foreign flyers - 2 UK, 1 Australia, 1 France, 3 Switzerland, 4 Brazil and 5 America. Steve Moyes and Gerrard Thevenot were the only class pilots apart from ourselves!

Sponsors were Beppu City Council, Santory Beer, national television and the Japanese Hang Gliding Committee.

**Site and flying conditions**

Take-off is a 4,300 ft. extinct volcano, very steeply sided and reached by a cable car. An excellent wooden ramp has been constructed with take-off slopes facing in three separate directions. Surrounding terrain is luxuriant green undergrowth and forest. Take-off to landing is 2.5 ks.

The landing area is at 2,000 ft. and has been bulldozed out of the side of a hill especially for this event. It measures 150 metres by 200 metres and has hillsides sloping down to it on three sides with a drop on the fourth side with power cables.

There were no alternative take-off areas and with low cloud prevailing it was quite impossible to fly. This fact rapidly became apparent to the City Council and they have promised to create a lower take-off site for the World Championships. We believe they are committed to the existing landing area.

We cannot comment on flying conditions due to our lack of site experience but it is clearly neither a floater competition nor a speed competition. Cross-country is included in the agreed tasks but it is difficult to see thermal producing areas in this location. However, we have seen several postcard pictures showing cumulus clouds above the take-off mountain!

**Tasks**

Briefly, these were as follows:-

- In pools of five -
- cross-country distance with designated landing zones - no score if outside a landing zone. Maximum distance 22 kilometres.
- dog leg cross-country with minimum time - designated landing zone for scoring purposes.
- speed run, figures of eight and spot.
- set duration followed by triangle of three pylons with spot.
- maximum duration, roll rate and spot.

The cross-country potential is a little difficult to predict but Jerome believes it is there and that we could well press for an open distance event next year rather than the restricted one planned for 1980. We have spoken to the Tasks Committee of our current feelings on speed runs, particularly in soarable conditions and we have emphasized the current belief in flying tasks as opposed to going-down tasks. We believe the organisers were as anxious to talk to us on philosophy as we were to them.

We protested at their landing rules which would have eliminated the complete flight score if the nose and, say, a knee touched the ground. After

much deliberation they amended their crash landing definition and the flight score will now stand except when there is a real crash.

The task involving three pylons around the landing area called for a 360 around each pylon and did not allow thermalling in between. We have dis-

cussed the flying philosophy behind this and the absence of a complete test of flying skill.

**Equipment and Judging**

Not surprisingly, they were fully equipped with computerized scoring, electronic timing, video of landings and even video cameras trained on the mirror pylons. They are experimenting with radar in the passing of a point in an out-and-return task. A bleeper on your chest will tell you whether or not you have passed the pylon!

We have little knowledge of their judging ability apart from the action of the take-off judge in sending two pilots off when the landing area was obscured by cloud. The marshals were an army of young students, very few of whom are hang-gliding pilots.

**Travel and accommodation**

Flight times - 15 hrs. to Hong Kong.

4 hrs. to Osaka.

1 hr. to Beppu.

Five days before take-off we were told by Cathay Pacific that they could not take baggage in excess of 10 ft. in length. Rather than risk arriving without our kites we sent them by unaccompanied cargo and picked them up at Osaka. This was costly and Jerome's sail was slightly torn and one of Derek's cross tubes was badly dented requiring an inner sleeve.

Returning to UK we presented Cathay with our baggage and, possibly helped by their mistake in over-booking us and having to place us on an alternative flight, they happily accepted our kites and they came back free of charge.

Hotel accommodation was good but we had cost problems with the Japanese Travel Bureau who overcharged and threatened to cancel our accommodation on 10th August. We have spoken to the organisers about the Bureau's involvement, which is purely to make an extortionate profit out of us, and there should be changes next year. Costs will be shown on a separate sheet but the air fares and hotel were approximately £800 each without food. Meals are about £2/3 each but we were hosted so well that the true cost of eating out cannot be estimated. Transport to and from the site was partly by tying up with the American group who had a van and partly through lifts from the organisers.

**Conclusions**

As we all suspected the tasks are largely out of date, but it was most encouraging to find that the organisers, in particular Asahi Miyahara, were anxious to take our views and for us to express our opinions of the organisation as a whole. Accommodation cost problems can be solved by avoiding the Japanese Travel Bureau - we should suggest to the organisers again that they dispense with their assistance and deal with the hotels direct.

The organisers have accepted the need for an alternative lower take-off site.

No one particular kite is called for in Beppu flying conditions - it merely needs to be the best all round performer.

We should investigate provision of cardboard tubes for our kites in transit next year.

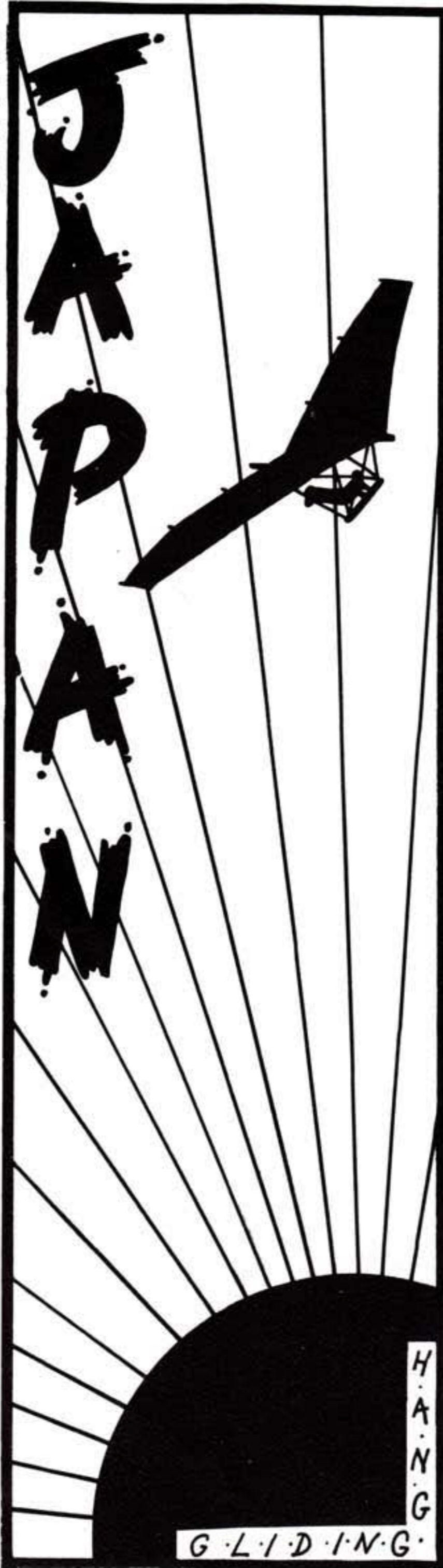
We must establish an early agreement for carriage of our kites on our normal terms.

The Japanese people are the world's best hosts and with their gentle generous characters they need to be dealt with in a gentle way. Diplomacy is paramount and we believe aggression would serve no purpose.

A mini-bus will have to be hired for the team next year and transport arrangements will need to be made from Oita Airport to the Beppu hotel.

Sporting licence, C of A and pilot's status were all called for in the rules. None were requested in Japan on arrival and our kites were merely "scrutinized" on day one.

by Derek Evans





# SMALL ADS

All small ads should be sent to Silvia Howard, Commercial Editor, *Wings!*, 4 Somerwood, Rodington, Nr. Shrewsbury, Salop.

Ads sent to any other address will be redirected and therefore delayed.

For your own safety, if you are purchasing a second-hand glider, check that it is a registered BHGA model, see it test flown, test fly it, and inspect it thoroughly for damage or wear to critical parts. If in doubt seek advice from the Club Safety Officer.

Vince Hallam's SUSSEX COLLEGE OF HANG GLIDING, 18B Queen's Road, Brighton 609925/24151, ext. 171. Sales. Spares. Teaching. Sigma. Hiway. Cohen. Chargus + Powered. S.a.e.

**LAKELAND HOLIDAY.** Calling all Hang-glider Families to lovely Ullswater! Our 4/6 berth luxury caravans with all mod cons., T.V. available at 'Watermillock'. For special rates and brochure, write to Bob Robinson, 32 Bedford Street, Darlington DL1 5JX, Co. Durham or phone Darlington 55178.

**SITES GUIDE** to most of U.K. and Ireland. £275. B.H.G.A. membership required for U.K. orders. Barrie Annette, 133 Twickenham Road, Isleworth, Middlesex.

**SOUTH WALES HANG GLIDING SCHOOL** offers inexpensive accommodation, excellent tuition, lovely hills, gliders sold/loaned. Telephone Michael Adam, Ynysowen (0443) 690787, 67 Cardiff Road, Troedyrhiw.

**SOUTHERN MICROLITE CENTRE** offers a complete range of spares and service for the powered enthusiast. Valmet 160cc engines complete with reduction gear and propeller. Fuji 250cc engine complete with reduction gear and propeller. Wheels, engine mounts, everything available. Our new 250cc TRIPACER. NOW IN PRODUCTION. £850 + Vat. Contact S.M.C., 22 Albany Villas, Hove, E. Sussex. (0273) 25534.

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**DRAWINGS AND CONSTRUCTION** notes for Wing Wagon (Tricycle power unit), 115 plus lbs. Static thrust. £5 engines available. S.a.e. for details. Ernie Patterson, 95 Killyleagh Road, Killinchy, Newtownards, Co. Down, BT23 6TR.

**STORMS.** We have a number of medium and large used Storms available, prices negotiable. Contact Solar Wings at Marlborough 54414. Other gliders also available.

**GLIDER SALE.** Olympus 160, £300; Scorpion B, £275; Vector (Med), £200; Cherokee (Med), £400; Gryphon 180, £340; Sunspot, £300; Midas Super E, £250; Tel: Ynysowen (0443) 690787.

**Hiway SUPER SCORPION 'C'.** Red and blue dacron sail, in very good condition. Easy to fly. Tel: Blackpool 0253-886183.

**CYCLONE 180.** In excellent condition, low air time, suit intermediate pilot wishing to advance. Must sell, hence £295 ono. Geoff Loyns, Penarth 700157, evenings.

**WILLS SST 110 P.** Advanced version of SST for heavier pilots. Two tone blue and white sail, 110° nose, 37ft. span. Super soarer prone or seated. £290 incl. bag and spares. Phone Keith Martin 01-998 2329 (home), 01-235 9381 (work).

**PRANGED** Avon Swift, could be broken up for spares. Bag included. £40 take the lot. Alternatively I would wish to hear from anyone else with a beat-up Swift they wish to sell, with a view to rebuilding my own. Ken Speakman 051-608 2913. If no answer try 021-354 6592.

**MOONRAKER 77.** Ideal intermediate. Tasteful multi-coloured dacron sail. Excellent proven performance. Genuine reason for sale. £225 ono. Ring Ian on Wrexham 760032.

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**SKYHOOK CUTLASS** (medium), mint condition, genuine bargain at £550 or might exchange Silhouette and cash adjustment. John Clarke, Burton on Trent (0283) 43879.

**SOLAR STORM** Medium. Excellent condition. Excellent performer. Never pranged. 6 months old. £500. Tel: (0604) 858812 evenings; (0604) 858274 daytime.

**SAFARI** Medium. Good condition, well maintained. Only 10 hours airtime. Breakdown model. Dacron sail, triple deflexors. Price negotiable. Paul Frain, Rochdale 55131.

**HANG-ON-HARVEY'S CLEAROUT! HI-LANDER** (Medium). Absolutely immaculate condition. Suit beginner to expert. £550. Also SUPER CYCLONE 180. Superb, quick-rig, factory maintained supership. Light responsive handling with floating keel, etc. £480 over. Will deliver, demonstrate and explain rig, etc. Peter Harvey, Shenley Church End. (090853) 304.

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**CHEROKEE** Medium — amazing flyer (2 flights over 1 hour this year); multi-coloured sail — purple/red/blue/gold dacron — £460. Also Hiway prone harness — £35. Wrist altimeter — £15; Arbee stalk-mounted vario — £85. Ring John Galvin on Warrington 38410.

**GLIDER SALE.** Olympus 160, £300; Scorpion B, £275; Vector (Med), £200; Cherokee (Med), £400; Gryphon 180, £340; Sunspot, £300; Midas Super E, £250. Tel: Ynysowen (0443) 690787.

**CIRRUS 5B** Clyde built. Superscorp eater. Ideal first glider to first XC. £375 ono. Phone Joe, days 061-773 5803; evenings 041 623 6933.

**GALAXY** Flyer helmet (size 4) — £13. 2 Protec flying suits (medium) — 1 light blue — £13, 1 dark blue quilted — £14. Flying boots (size 9) — £13. Ventimeter — £8. All in good condition. Ring John Galvin on Warrington 38410.

**ATLAS** Medium. B/down model. Perfect tune. Suit intermediate looking for performance machine. £525 or near. Phone John on Milton Keynes (0908) 73485.

Competition model medium **ATLAS** for sale. Mylar — breakdown — nose-catch etc. The number one glider at America's Cup, still the fastest set up. Light blue, almost new. £650. Phone 0983 78488.

**AV200** Alti-Technic Variometer, includes: dual scale, batt. test, variable damping, audio cut-out, mounting stalk. As new condition. £120 ono. Rod Lees, (097084) 229.

**SUPER SCORPION C,** March 1980. Tasteful multi-colour sail. Very little used and in excellent condition. £450. Also available B-bar, Hiway prone and seated harnesses and Romer helmet. All in excellent condition. Portsmouth 736595.

**SUPER SCORPION C,** good condition, B bar and seated harness if required. £450 ono. Tel. 0626 (Bovey Tracey) 833039.

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**SUPER SCORPION C.** Flies beautifully, excellent handling, just what the beginner/intermediate flyer needs. This glider will be hard to beat at the price of £460 ono. Tel. Exeter 68143.

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**SUPER SCORPION C** — the ultimate floater. Rainbow sail, beautiful condition, £475. Keith Dickinson, Preston 51957 (office); Lytham 730958.

**ATLAS 18.** Large. Knock down version. Less than 1 year old. White, yellow, lower L/E, yellow and pale green tips. Very good condition. £650. Brighthouse 716069.

**STORM** Medium. Very good performer. Excellent condition, attractive sail. Selling to buy Solar Typhoon. £530 ono. Tel. Reading (0734) 772423 evenings.

**LANCER 4S,** £308 ono. Excellent handler, multi-coloured sail. **LANCER 4L,** £500. Brand new, still in shipping case, white sail, quick set up. Returning overseas, must sell. Phone Hackthorpe, Cumbria 436.

For sale: **MOYES MAXI STINGER II.** Excellent condition. It has to be seen in the air. £350 ono. Ring Keith, 01-907 0230, evenings.

Hiway **SUPER SCORPION 'C'.** Dacron sail — white with purple leading edge and keel. V.G.C. Poverty forces sale. Complete with bag, spare rigging wires (unused), B Bar. £500 ono. Plus seated harness — £15. Plus Hiway prone (hardly used) — £50. Contact: Alan Dowie, 01-733 3835 — Brixton, London.

Medium **ATLAS,** April 1980. Very good condition. Several XC's. £600 ono. Contact Dave Bluett, Maidstone 831004 (home) or 831215 (office).

**ATLAS 16** (medium). "Super-competition" i.e. fibre glass inserts in L.E. double surface. Beautiful colour scheme, green double surface plus three tone green split centre panels. Only £600. For this green dream machine, phone Paul Kavanagh, Ramsbottom 6659 evenings.

Skyhook **SAFARI** (Large), rigged for seated or prone. Good condition. £325 ono. Ring Alan Wrathall, Garstang 3568.

**CHARGUS VEGA IIB,** beautiful condition, well cared for, only 4 hours airtime. Perfect floater for beginner, intermediate and/or heavy pilot. Sacrifice at £260 plus bag. Also new unused Airstream harness — £30. Tel. Bristol 684451 6-8pm.

You can buy the **MOYES MAXI II** seen on p.2 of *Wings* for just £550! Beautiful rainbow sail. Perfect condition. Trip abroad forces sale. Tel. John Salmon on Farnborough (Kent) 54834.

**BENNET LAZOR 175.** March 1980. Excellent all round glider. Very fast. Good bar position. Worth £460 but must be sold at any price. Brighton 553286.

**FALCON III.** Excellent condition, multi-coloured sail. Offers in the region of £150. Call Jeremy Proctor on Usk (02913) 2593.

**ATLAS** Medium. Excellent condition. Beautiful, clean sail. Delivery can be arranged. Superb value at £620. Jim Brown, 0274 87888.

For sale: **SUPER SCORPION C+** as new. Phone Mansfield 647008 between 1615 and 1645. £500 ono. Large **SOLAR STORM.** Good condition — a 36 mile XC this season. Richard Brown. Tel. 0257 792417.

**ATLAS 16.** April 1980. Good condition. £595 ono. **SUPER SCORPION 'C'.** 1 year old. White and gold sail. £495 ono. Phone Graeme 0480 68882.

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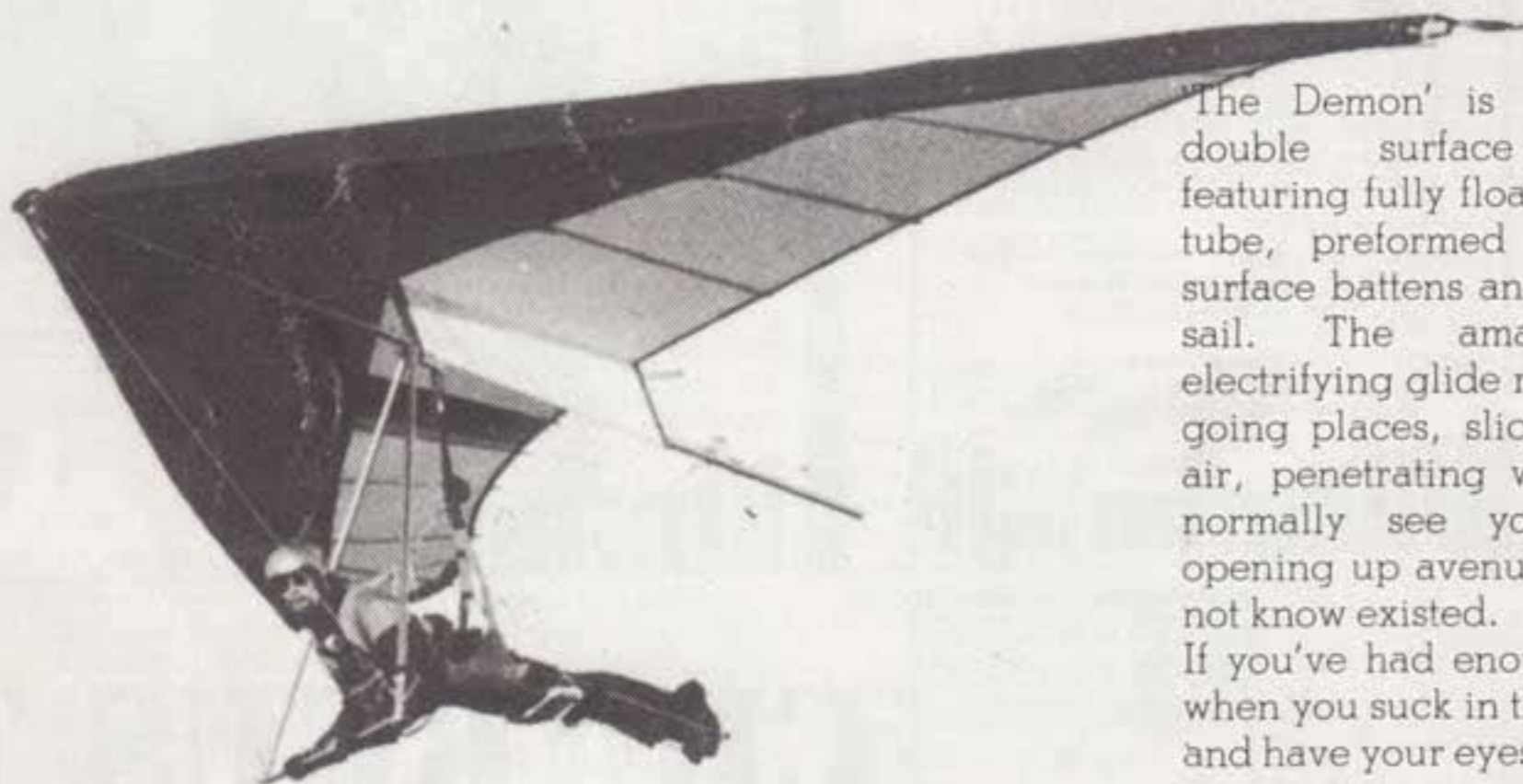
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