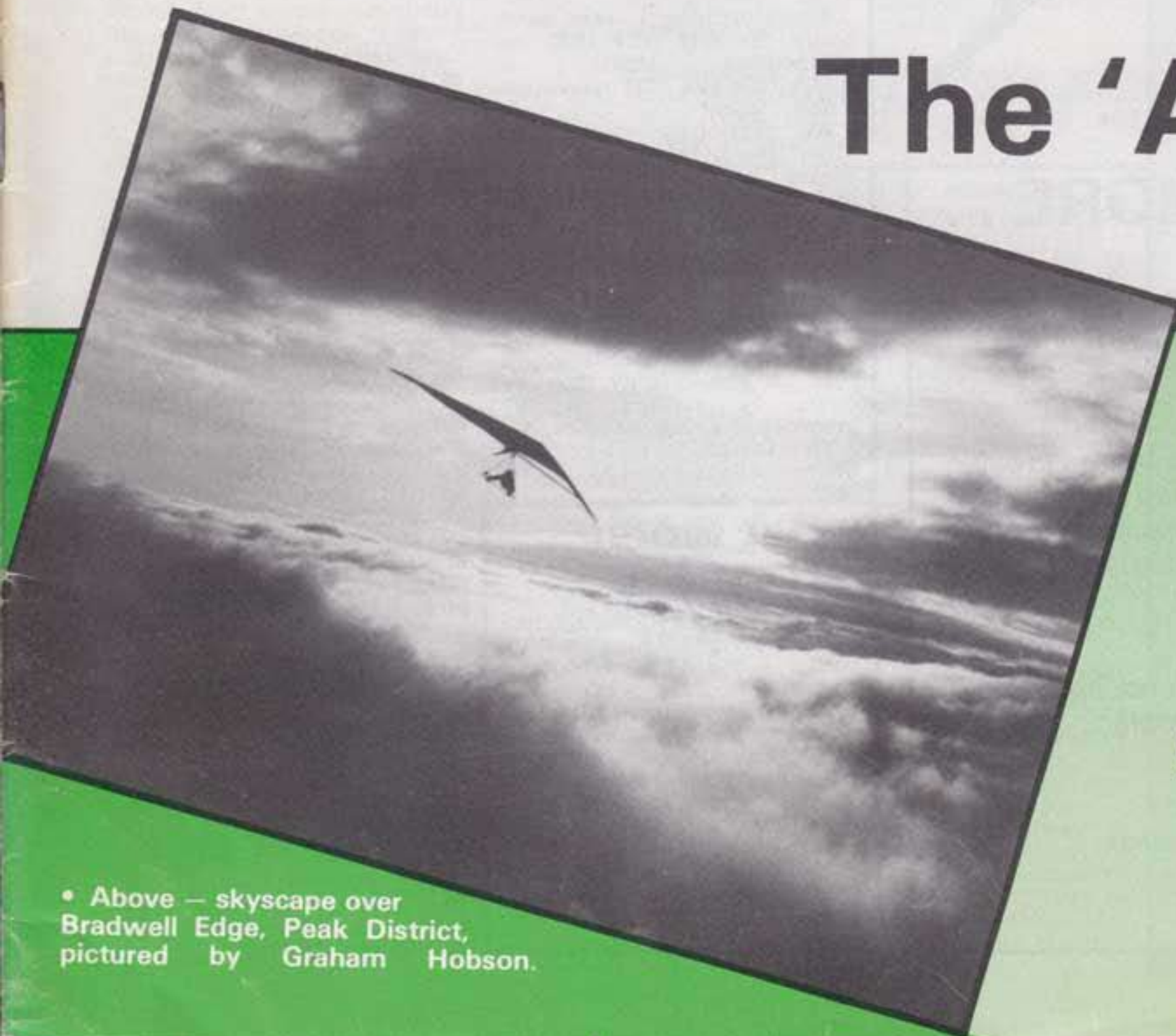


# Wings!

MARCH 15, 1982



## The 'Alien'...



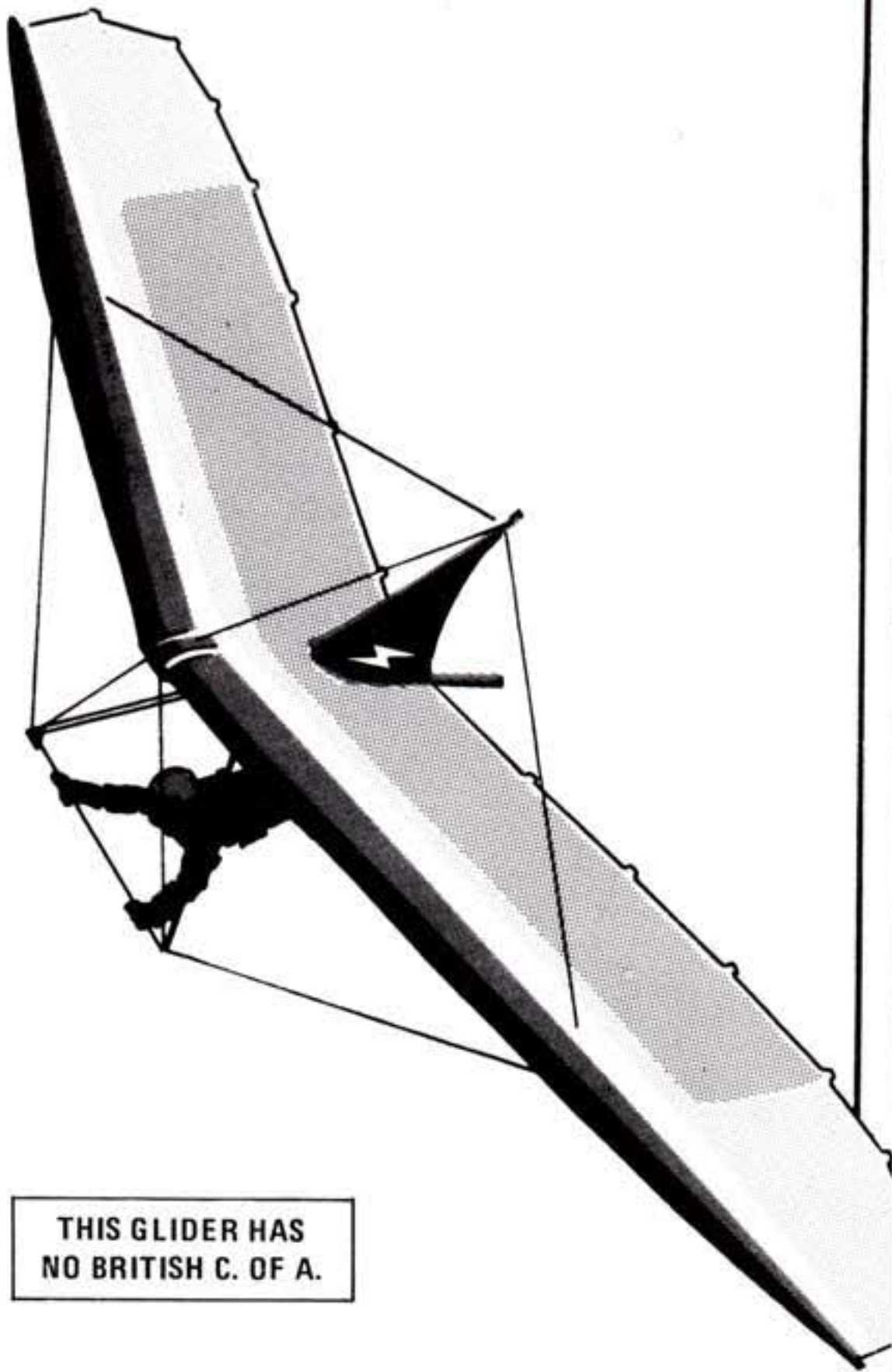
**... a close  
encounter  
of the 6th  
generation  
kind?**

• Above - skyscape over  
Bradwell Edge, Peak District,  
pictured by Graham Hobson.

See story on page 3



## A QUICK FLASH!



THIS GLIDER HAS  
NO BRITISH C. OF A.

## AND MUCH MORE . .

*. . . because the exciting PHASE II LIGHTNING represents just part of our extensive range of original products for '82.*

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Telephone Brighton 732007**

## Foster's Draught British Open

# £3,500 must be won!

**HOW** do you fancy hang gliding with the chance of winning up to £1,000 into the bargain.

Well you can do just that next month as there are still a few places left in the £3,500 Foster's Draught British Hang Gliding Open on the Isle of Wight.

Entry requirements are stated in full in January Wings! but in general terms, providing you hold P2 rating or your club CFI will certify you are of P2 standard you should be eligible. First prize is £1,000.

If you want to compete, then apply NOW to Derek Evans, 15 College Drive, Tunbridge Wells, Kent, with your £15 entry fee (phone 36026 or (work) Sevenoaks 59995), or in any case by March 31.

The Open will also include a club team event with trophy.



the island in conjunction with the Shanklin Festival which is also backing the Open.

The British Microlight Aircraft Association will control the event under BHGA direction and participants will "pay at the gate".

Some TV coverage of the Open is already assured, with the local independent channel proposing to put out three slots.

Next month's Wings! will be a bumper issue geared to public sale during the Shanklin Festival and Foster's Draught Open and it will include details of things to do on the island as well as information on sites and competition tasks.

Shanklin Hotel and Guest House Association has negotiated concessionary rates on the Isle of Wight ferries for participating pilots. They cover the period April 23 to May 5 and are as follows:

1. Vehicles up to 17' 10 inches length plus up to 6 people (including driver) will be charged £20 return.

2. Foot passengers carrying hang gliders will only pay the foot passengers fare, provided that: (a) Hang gliders whether on roof racks or carried are placed/positioned as required by the ferry staff and (b) Special identification is produced when buying the ferry ticket. This identification will be sent to pilots when their accommodation is confirmed. Where pilots are making their own accommodation arrangements, they should contact 61a Regent Street, Shanklin for this identification.

Note that hotels and guest houses and some of the other establishments are able not only to book your ferry, but, if you go Red Funnel, send your ticket as well. In such cases, special identification will not be required.

### Sensitive

Fliers forming a team must notify the fact BEFORE the competition starts — individuals can NOT constitute a club "team".

As previously stated, all other free flying on the island during the Open is restricted and the Isle of Wight Club has agreed that even its own members will not fly during the Open to counter the flood of applications that have been received recently.

The club also stresses the sensitivity of its St. Catherine's Hill site which may only be flown by visitors in the presence of a club member.

The BHGA is underwriting the microlight event to run on

### A worse Press

Hang gliding gets enough bad Press without having to put up with totally erroneous reporting.

A parasailing accident in the South East in which a man was killed was wrongly reported in the Press and on TV as a hang gliding accident. A statement countering the reports was issued by BHGA Press Officer Stan Abbott but by then the damage had been done.



# Celtic Cup — it's all go!



by Martin Pingel

DUSTY Miller the station manager of Dan-Air for Cardiff Airport — hands over the sponsorship prizes to Martin Pingel, organiser of this year's Celtic Cup.

This is the third Celtic Cup competition and the second one to be sponsored by Dan-Air.

It promises to be the best yet, with strong support coming from the three principal Celtic nations — Wales, Ireland and Scotland.

As part of the deal Dan-Air are giving five £50 vouchers that can be used to buy an airline ticket on any of their scheduled flights — these will be used as prizes in the competition.

Also, Dan-Air have given us two tickets for Amsterdam and back from any of their airports in the UK and Ireland — this is being used as first prize in a draw that will include lots of other good prizes.

The money raised by the Draw will go towards the organisation costs and cash prizes in the competition.

Hopefully, we will raise enough money to give lots of prizes e.g. best stand up landing on a 400,000 volt power pylon might possibly win a prize!

## National

The competition dates are June 5-7 and it will be based at the Pandy Hotel, near Abergavenny. Tasks will be set on each

day by one representative of each of the three nations.

It is hoped that it will mainly consist of cross country flying. The emphasis is fun and therefore everyone that turns up and wants to fly can do. However, for the purpose of deciding the Celtic Cup, the best five individual scores of each country will count.

The competition is open to all registered pilots from Wales, Ireland and Scotland.

"Registered" is taken to mean that each competitor has to have been a bona fide flying member of his national hang gliding body for at least three months, but need not be a native of any of the three countries to qualify — the Irish have two New Zealanders and a Welshman flying for them!

## Leisure

There is no need to "officially enter" the competition — just turn up, hand your name in, show us your membership card and fly — or better still pose around the hill and have your picture taken by the Press and TV that have been showing considerable interest in the event!

For further information including accommodation, where to eat and drink, other sports and leisure facilities, write to me at 24, Heol Maerdy, Mornington Meadows, Caerphilly, CF8 3PZ.

• Picture also shows Dan-Air traffic agents Silvia Woosnam and Jenette Gray, Martin Hann (Chairman SE Wales HGC) and George Yeoman, Dan-Air's PR chief.

## See the new machines!

THERE will be a golden opportunity to see and fly all this year's new gliders at a Manufacturers Fly-in in Mid Wales on March 27-28.

The event was organised after attempts to promote a Manufacturers' Competition failed through lack of interest — only Hiway and Graham Hobson (Azur) were ready to send teams.

The Fly-in will be hosted by AIRSPORTS (Aviation

Ltd.) in the Aberystwyth area and anyone interested in going should write enclosing £1 and a stamped addressed envelope to Airsports at Cwm Rhedol, Aberystwyth, Dyfed, SY 23 3NA (phone 097-084-289), in

return for which they will get full accommodation and sites details.

Test flights will be by arrangement with manufacturers and so you must take your BHGA membership and pilot rating cards with you.

There is every chance all British manufacturers will be there with only Skyhook and Flexiform — both now heavily committed to power — in doubt. Apart from the 1982 developments of the Typhoon, Comet and Lightning there's the Gold Marque Marauder, and the one everyone's talking about, the Hiway Alien.

This is an 80 per cent double surface ship with a Sealander-style tail but with a cross tube rather than bowsprit design. It has fibre glass wing tips and weighs about 40 kg.

Everyone at Hiway is confident they've got a winner and as one observer commented: "They're really talking from the heart this time, not the backside!"

## LARIANO TRIANGLE

THE third Lariano Triangle / International Cross Country Open Distance Championships organized by Delta Club Como, for top world XC pilots takes place May 30 — June 6 — invitation only.

For further information contact: Tony Masters — Via Monterosa 11 — 20149 Milano — Italy — (02) 49.81.446 or Gianluca Zunino — Via Stoppani 4 — 20129 Milano — Italy — (02) 49.89.461.

## Trouble at Mill

Adur district council is to fight on in its efforts to ban hang gliding at Mill Hill despite its failure to secure convictions against two pilots.

As reported last month, magistrates ruled the council's bye-law was invalid. Now the council is to appeal to the High Court.

# Wings!

Wings! is edited and designed by Stan Abbott and published in the second week of each month by the BHGA (see page 32)

Contributions for the magazine ONLY should be sent to the Editor at 72 Hartley Avenue, Leeds, LS6 2LP

Tel 446701

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- Page 5** Great Bores of the Hill. Annual sites report by DAVID BEDDING.
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- Page 27-29** TONY FUELL talks to Marilyns Wills.
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- Page 31** WALLACE WHITE, winner of the American Gray Prize for Journalism.



# Down

## Editor's annual report

IT is with some trepidation that I'll be coming to face members at my first AGM... because the folk who get it together to travel to meetings when they could be out flying (or just lying in bed) are likely to be those with plenty to say. Will it be good?

You are now reading the eighth issue I have edited since taking over from "caretaker" Mike Hibbit. Had I been an evening newspaper editor not even two weeks would have passed and readers would doubtless feel it was still "early days" and allow me the luxury of a little more time to prove myself. But Wings! only appears monthly...

When I took on this job, I wrote in June 1981 Wings! that I aimed to produce a newsy magazine with enough production flexibility for members to feel they are getting the latest news in their own magazine.

That was nine months ago and — while the feedback I get from correspondents and word of mouth remains overwhelmingly favourable — I do sense the natives may be a little restless about Wings! content.

"Where are the glider tests?... where are the technical articles?... where are the training notes?..." I hear the tom toms beat.

Truth is, I could fill the magazine twice over every month with articles that you send in — (and they're all more than welcome) — but the specially-commissioned articles on more weighty subjects rarely materialise so easily.

Take glider tests... it just ain't easy in the small world of hang gliding to recruit test pilots who can really be considered objective — who have NO commercial links whatsoever with any manufacturer.

At the same time, the effect of a bad report can have a disproportionately unfair effect on our manufacturers whose resources are in any case limited. Note, for example, recent correspondence on a Sealander Flight Report that appeared in Wings! last spring.

Having said that, I CAN promise a number of new features for Wings! very soon, including glider tests... second-hand buyer's guide... a regular training slot by Bob Harrison... a schools guide.

On the magazine itself, I would like to think the format has improved steadily these eight issues — each one has been an experiment really, with a few new lessons learned each month.

I do aim to stick by the general character I hope I've created for Wings! and there are some policies on which you'll not shift me.

I believe Wings! must continue, for example, to cater to some extent for those microlight fliers who have graduated from our sport — FOR COMMERCIAL REASONS if nothing else.

And I stick by a "journalistic" approach to editing and design because I believe we stand or fall by the public image we project and — whether we sell on the bookstands or not — Wings! remains our flagship.

I believe the time is now long gone where we can afford to be cliquish, parochial and complacent....

Happy flying, Stan Abbott

# Varsities' relaunch

A SECOND attempt is being made to get the Inter-University Hang Gliding Association off the ground.

Last autumn's inaugural meeting at Reading was poorly attended and the only firm decision made was to change the association's name.

Acting secretary Simon Dales writes:

"Our aim is to promote university / polytechnic flying. We plan to do this by organising competitions for the more experienced members, and tuition for the beginners.

All NUS — affiliated

universities should have seen an article in the National Student about the inaugural meeting.

Students have written to us independently about the IUHGA and what we can do for them. Could all clubs, whether university or site-controlling, please help their local university clubs, however embryonic they are.

Any interested clubs should write to me at the address below. Also due to the communications problems could all member clubs write to us with details of their new addresses and sites used, rough area, and the universities they could help if asked.

Simon Dales  
Acting Sec.  
IUHGA  
Reading University,  
Reading,  
Berks.

## Snags on the road



THE question raised in Wings! recently as to how much overhang is allowed at either end when you put your hang glider on your car roof prompted a veritable sackful of mail.

The answer just isn't as simple as saying you can have a six foot overhang at either end.

Indeed, a recent decision by magistrates at Sandbach, Cheshire, suggests we are all risking prosecution and an endorsement every time we go out, no matter how little overhang we have.

John Hurlley, of Macclesfield, was fined £30 and his licence endorsed for driving a car with a "dangerous hang glider support" on the bonnet.

The support was the usual "goalposts" type made from A-frame alloy tubing as used by the majority of BHGA members.

Mr. Hurlley denied the charge and told the bench he expected the BHGA would have to lodge an appeal in the interests of other members. The magistrates said they felt "some sympathy" for him because he had made "some effort" to make the glider safe but found him guilty nonetheless.

Martin Brady, of Worth, Sussex, wrote to bring attention to legislation which says a motor vehicle shall not be used "for a purpose for which it is so unsuitable as to cause danger to any person in the vehicle or on the road".

He said: "I have been prosecuted and fined under this law after the police had

measured the overhang at each end to be 4ft. 6ins.

"The implications are obvious — anyone with more than a couple of feet overhang is liable to a severe dose of being nicked."

So where do we stand? The best answer would seem to be to stick by the letter of the basic regulations as summarised, below, from the BHGA Pilot Handbook.

Quote these regulations with authority when challenged and if charged under any wider law notify the BHGA immediately.

We don't lose them all... a charge against Graham Hanson, of Bristol of not carrying a rear warning LIGHT on his glider was dropped.

As your general guide!

- No lateral projections over 12 in.
- If the load has a forward projection of between 6ft and 10ft then there must be two people in the car to warn other road users and three warning triangles are necessary — on the front and at the sides near the front of the glider.
- If the load has a rearward projection of between 3ft 6in and 6ft then a flag is necessary.
- If the load has a rearward projection of between 6ft and 10ft then a warning triangle is necessary on the rear of the glider.

It therefore follows that no action is necessary with a glider which does not exceed 6ft at the front and 3ft 6in at the rear.

Incidentally these regulations only apply to vehicles during the day and while the vehicle is moving; lights and warning triangles are required if the vehicle and glider are parked on a public road overnight.



## Great Bores / Of The Hill

### No. 4 The Keen Club Member

"...oh hallo yes sorry I couldn't make the AGM usual boring do I s'pose anyway don't want to end up on the committee, do I? picked up me new kite last week had to send it back hadn't bloody tuned it had they? wouldn't flare on landing at all, nearly ended up in old Fred's yard didn't I? course I know about the lambing season what d'you think I am? none of the sheep seem to mind though got an ASI now that know-all safety officer says I fly too slow but haven't dropped out the sky yet ha ha these old-timers, all the same aren't they? why I bet he's never even done a wingover even said I should practise circuits on me trike oh while you're there check that engine will you I'd've made it over the hedge if the bugger hadn't packed up on me Yeah Ward F3 about three months..."

*John Harthman*



# AGM spot **Harmony — the secret of 'safe' sites**

THERE are few "genuine" hang gliding site problems, writes BHGA sites officer DAVID BEDDING in his annual report.

This report concentrates on the wider aspects of sites representations — presentations on specific sites have been carried out in close collaboration with clubs that control them, and have been reported as necessary.

Co-ordinated action is vital to successful representations and requires considerable communication to achieve. Club officers responsible for representations have worked hard to achieve co-ordination. They have recognised the difficulties that are created if those opposed to our activities can exploit a division.

There are few genuine hang gliding site problems. When there is opposition to our use of take-off and landing areas the reasons are usually "people" reasons and unconnected with their association with hang gliding. Occasionally the reasons for opposition to hang gliding are use-of-airspace problems masquerading as sites problems.

The strategy adopted has been to insist that people problems and airspace problems are dealt with as such. Our members are unlikely to cause people problems and our organisation is very ready to help achieve reasonable solutions.

I have worked closely with Airspace Co-ordinator Ted Frater in diverting some problems to him. He has an enormously difficult task as there are vast volumes of airspace allocated for military and commercial purposes. "Free" airspace is quite limited — a situation that would not be tolerated in a free society on the land or at sea!

Allies are valuable and can readily be found in the ranks of other sporting and recreational organisations. We interfere very little with other recreationists, and only a little effort is required to resolve any difficulties. We do not require the exclusive use of land or airspace.

Amazingly, we have fewer real problems than other sport and recreation activities. Our efforts to resolve general problems are appreciated. We receive considerable help from other representatives of sport when this is needed. This can be very important when we are persuading people to accept hang gliding.

The only problems of substance we have are the imaginary problems in the minds of non-participants. Most people think they have seen hang gliding, but very few have

any idea of what it's all about in 1981.

Considerable effort is still required to establish that we are merely a risk sport, and by no means the most dangerous. The risk to non-participants is very distant. Statistics clearly show that they are at greater risk when we are not flying.

We spend some of our time on the ground driving cars, and even if we are all good careful drivers the risk to third parties is horrendous.

A club officer told me about the efforts of an amenity group representative to have hang gliding prohibited. The representative read a prepared speech at a meeting organised by a borough council to harmonise activities. It then transpired that the amenity officer would like to be informed next time the club flew as he'd never seen a hang glider.

Extreme examples like this can be tackled more readily than impressions of hang gliding based on a glimpse of training or our early flying activities. We know that fifth generation machines are very controllable and can be handled with considerable precision.

It is still not easy for other aviationists to accept that our delightfully simple form of control is so very effective — they are used to complex control equipment. It is even more difficult to convince a non-

**continued over**



...continued

aviationist as he doesn't understand the fundamentals of flight and is inclined to think complex equipment must be necessary.

Sport and recreation can not be entirely separated from government at any level. Sport has its own politics and government, but can not operate in isolation. Our objective in BHGA is to persuade members to harmonise with every other human activity. That's very easy because our members have learnt that more flying is achieved if people enjoy our presence on the ground and in the air. We receive valuable funding from Government through the Sports Council. (This is occasionally used as a lever to "persuade" us to operate as our government thinks we should.)

It is sometimes thought that sport should not be funded by taxpayers' money, but it should perhaps be remembered that there are many taxes on our sport, and these far exceed the money received from government.

VAT on hang gliding equipment plus taxes associated with personal transport to take-off and landing points dwarf members' subscriptions to BHGA and clubs. Sports Council grants can be viewed as a form of tax relief. Valuable help is received from Sports Council officers when we think to ask for it.

## Intensity

Although we have had a few sites problems during the year, I do not know of any sites lost — although Steyning Bowl is very nearly in this category because of monetary difficulties. Many sites have been gained on a trial basis. Clubs quite properly do not advertise their gains as trials do not benefit from high intensity flying.

Subject to the views of members, I propose to develop our future sites strategy along proven lines. We are dependent on the goodwill that radiates from our members. If people like us the major battles are won. Agreements should be as informal as can be arranged.

Flexibility is built into informality. Our activities on the ground are sites activities. Our flying is subject to air law.

Flying only becomes important to land managers if it causes nuisance or annoyance to those on the ground. Clearly we want to avoid any complaints about nuisance and annoyance — none have reached me during 1981.

Sites agreements should only deal with activities on the ground. It is not the responsibility of land managers to control our activities in the air.

That is the direct responsibility of BHGA and its clubs and members. We are the only organisation with the knowledge to take decisions about flying hang gliders and will continue to respond to any complaints that reach us.

I have been unsuccessful in preventing two problems reaching the law courts during 1981. In each case our solicitors have skilfully obtained verdicts that have benefited the sites concerned and restrained other authorities tempted to take a similar line.

They have operated on the very fundamentals of law and their achievements can not be too highly praised. Considerable background work is required to achieve verdicts that are not welcomed by the local and national authorities concerned.

The cost is high but Council has fully recognised the dangers of conceding important legal precedents.



# COSMOPOLITAN

*begins here...*

The monthly Wings! round-up of overseas news compiled by MICHAEL CARNET

## — AUSTRALIA —

### New record

IF you remember last month's Cosmopolitan, the top world three distances were: Jim LEE 168 miles, Larry TUDOR 165 miles and Rich PFEIFFER 139 miles.

There is a change since last month when Rob DE GROOT flew 156 miles in Australia with his Moyes Meteor to get the new Oceanian record.

This proves that the U.S.A. is not the only place for long cross country flights. The world record is 168 miles and Britain itself is longer than that, isn't it?

According to rumours, another pilot to enter the Club of 100 Miles is Bill LILLIG who flew his Swift for 115 miles in Australia.

## — FRANCE —

### New machines

THERE are two new gliders from the east of France, which are now in production. (See centre pages)

The Vendest is being introduced for the 1982 season by a very small manufacturer Voilerie du Vent. The Vendest has a 155° nose angle and 90 per cent double surface.

Pacific Wings, after building the Vampire in 1981 are now manufacturing the Vampire II 80 per cent double surface. It seems very fast, but unfortunately is not so good at slow speed.

### Bleriot Cup

MIKE de Glanville will organise the Bleriot Cup 1982 in Lachens in the second week of May.

Mainly, the tasks will be cross country around a triangle, or two pylons. There will be no timing, no marshals and the winner will be the pilot having completed the circuit the most times and the winning team will be the one with the best scoring pilots. Cameras will have to be used for witnessing take-off, turning points and landing.

This is a "go, come back and go for it".

## — GERMANY —

### Instruments

ACHTUNG! Made in Germany, these two vario-altimeter combinations are very impressive.

The Pritzel is a very nice compact unit which weighs only 260 gm (9 oz). It is the same size as your hand (6 x 2 x 3 1/2") and it can be placed on your upright with a camera mount, adjustable in direction.

This vario has an automatic zeroing and a variable audio system. You can adjust the needle on zero and the audio to the climb rate you want. There are two sensitivities, up to 1000 ft/min or up to 500 ft/min.

The four digit altimeter has a range of plus or minus 6,500 feet and is adjustable. The integral battery is rechargeable and the unit is sold with a recharger. The Pritzel unit costs £240 and is distributed in England.

The Kameg: like the Pritzel it has a variometer and a four digit altimeter. I can not describe all the trims and adjustments because there are so many. Its batteries are not rechargeable, but interchangeable. This vario has two scales and the adjustable altimeter has a range of plus or minus 6,500 feet.

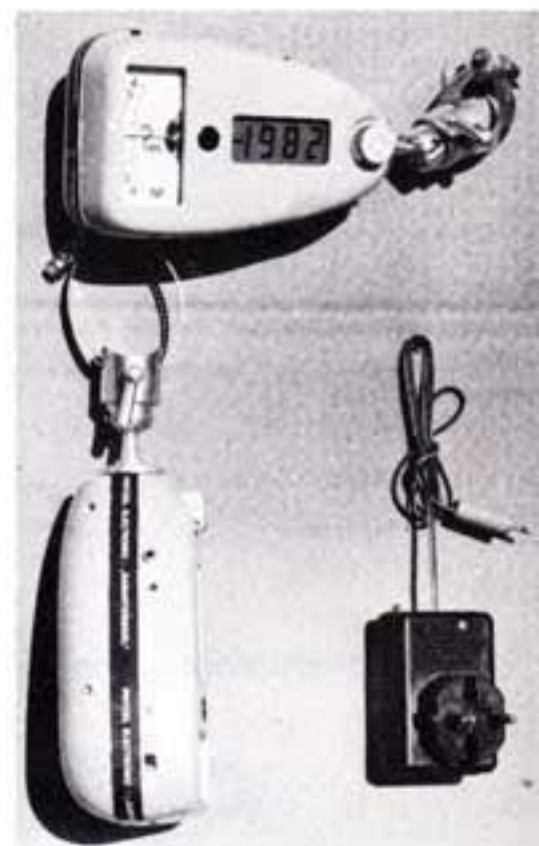
It costs about £400 and I do not think anyone in England is trading this product yet.

### Firebird CX

THIS glider is six months old but is still revolutionary. As you probably know, CX is the physics abbreviation of the coefficient of penetration.

The manufacturer, Firebird, has tried to reduce the drag as much as possible. The suppression of the king post and all the top rigging is eliminating a good part of the profile drag but is bringing a lot of problems especially for the pitch stability and the structural strength in negative.

For the pitch stability, three solutions have been found: the truncated tips assure sail washout, a small keel post inside the keel pocket keeps the central chord in place and



The Pritzel vario-altimeter

Picture — Michael Carnet



The Kameg vario-altimeter

Picture — Vol Libre Magazine

the battens are reflexed at the back.

For strength in negative G there is an 8" long king post inside the profile and two carbon fibre compression struts instead of side cables. With fairings, they produce less drag than the top rigging would.

The control frame is wider than usual to keep the carbon fibre compression struts as short as possible.

The only Firebird CX which flew in Japan, piloted by the excellent Walter Schonauer, finished ninth.

Walter might come to the UK for the American Cup in June and we will see a bit more of this glider and its performance.





The Firebird CX piloted by Walter Schonauer

## NEW ZEALAND

### The Shark

THE Shark from Flight Sails, winner of the Class II in Japan, is very elaborate even though it looks like a Lightning.

The 90 per cent double surface is not sewn on the top surface which allows a better weight shift. The keel is fully enclosed between both surfaces. The king post holds the fin which is not sewn onto the top surface.

The Shark is not heavier than a Comet, even with 30 battens.

The performance at high speed seems excellent but at slow speed is the same as a normal CFX. The Shark is distributed in England and it costs just over £1,000.



The Shark's tail fin



The Shark at Devil's Dyke

## SOUTHERN AFRICA

### Big distance

ONE hundred and five miles! Georges Long flew for five hours and 45 minutes with his Comet 185 (not a Magic one but still a good one). He took off at noon from Haartbeestedoort Dam, a well-known site near Pretoria and landed near Sentrum.

Obviously this is the African record and the Club of 100 Miles is becoming larger and larger.

## — SWITZERLAND —

### Asw Flash

VERY interesting is this Fledge-type glider. The ASW Flash was second and third in Class II at the World Championship in Japan, just behind the Shark.

It has 100 per cent double surface, a nose angle of 144°, a sail area of 168 feet and a weight of 29 Kg (64 lbs).

At 30 mph it sinks at 600 ft/min.

The ASW Flash is made by Herr Sherrer who began copying the Fledge II two years ago.

It is much faster and cleaner than the Fledge. The ASW Flash is sold in Switzerland for £1,400.

Sherrer Kontakt Oberneuhofstr. 13 CH-6340 Bar, Switzerland.

### Geneva XC

THE Delta Club of Geneva is organising a year-long cross country competition.

It just consists of "going for it" from the Mont Salève which is in France, 2 miles from the Swiss border.

The members of the Delta Club of Geneva must cross the border every time they want to fly — first by road driving to the top, then by air — flying to the landing area in Switzerland!

The entry fee is £5 and all the money will go to the pilot having flown the furthest. Marc Burge is leading with 86 Ks (53.4 miles) after landing near Grenoble. The prize money at the moment is £2,200.

Further information from Didier Favre 5 Chemin des Vignes, 1258 Geneve Perly, Switzerland.



The ASW Flash

## U.S.A.

### Phoenix X

BILL Bennett was the first manufacturer to build a CFX glider with the Mariah in 78. The performance and stability were not very good.

After the Comet arrived, Bill introduced the Viper.

The performance again was not very good.

But now, here is the new Phoenix X in three sizes which — according to Bill — has unbelievable handling.

Nose angle 130° and 63 per cent double surface. It really looks like a Comet. Wait and see!



Above — Bill Bennet's new Phoenix X and, below, the Wills Wing Duck.



### Wills Wings Duck

THE Duck, second in Japan flown by Rich Pfeiffer, is now in

production, manufactured by Wills Wings.

In spite of objections from their dealers, they will keep this stupid name!



# FLIGHT BRIEFS

Well, well well!!

Les Cole — the new town public relations chief who masterminded the Newton Aycliffe sponsorship deal that never was — has lost his job.

Aycliffe and Peterlee Development Corporation has disbanded its PR department and is reported to have given Mr. Cole a fairly hefty handshake before his departure to BBC Radio Cleveland. Leaving with him was his assistant Bett Ainsley who was also involved in the deal whose failure culminated in the Spooner inquiry into Brian Milton's role.

## Adam off

Mike Adam has quit as CFI of the Ibis (South Wales) Hang Gliding school, scene of last year's fatality, and has put the business up for sale.

AGM spot

# Why all this

A Spring letter from BHGA Airspace Co-ordinator Ted Frater

It's now just over a year that I have been your Airspace Co-ordinator and since it has cost you each about 10p, you're entitled to know what you've had for your money.

The first and most important part of my work for you has been to look after your interests when you share airspace with others. My regular contact with the Civil Aviation Authority and National Air Traffic Services has built up a good understanding with them to the point that the NATMAC secretary Ian Bullock, who co-ordinates all matters relating to us with everyone else in aviation, went to the Gerry Breen school to try out hang gliding.

## Politics

As part of the BHGA's continuing policy of building good relations with others, the offer of a course in our sport was also made to the British Gliding Association and members of the flying committee of the London Gliding Club. As of this time the offer has not been taken up.

We still hope that they will avail themselves of this to get a better understanding of us and our way of flying. As many of you will know, the problem of sharing the air at Dunstable Downs with the sailplanes has not been primarily a practical one, but a matter of politics and personalities.

John Hunter and I have tried every means of normal decent diplomacy at all levels to try and establish a working relationship with the London Gliding Club. This problem has occupied most of my time but it has been a series of frustrations and misunderstandings all through the year.

With the BHGA's policy to stand and fight where we are sure we are in the right we have with David Bedding's leadership fought and won the "ground space" problem. As a result of this we at last see a solution to this continuing problem. — a report in due course.

The problem of low flying high speed military aircraft has also kept me busy. With all major sites marked on the air maps, I have tried to get the symbol orientated to indicate the mean wind direction in which the site is used. The military pilot would relate the weather information he has to the sites on the chart and thus know which sites are likely to be in use.

If he always flight plans his track upwind of the symbol, the collision risk to him and us is reduced by a very large amount.

I have the support of the Guild of Air Pilots and Navigators in this and will report on progress in due course. At this point, I must answer Tom Hardie's article Big Brother in January Wings!

The Highlands Restricted Area was notified to me well in advance of its implementation. I immediately contacted the Scottish clubs concerned with the details and they assured me that there were

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## Hang gliding

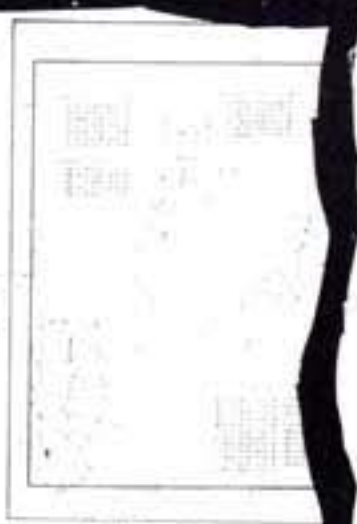
Wings! Exclusive

AN INTERNAL memo to Service aircrews suggests the RAF wants further to restrict the access of hang glider and microlight pilots to OUR skies. The memo in the Flight Safety "Feedback" bulletin states:

"We know that many aircrews are concerned and as a result there could be areas of conflict between us in which a collision could be a distinct possibility."

"Your various reports may help to alert that disaster. As we mentioned in Feedback 11.4, we are further starting to know about conditions or hazards created by hang gliders and microlights. It is estimated that there are now some 600 microlights flying in the UK and this number is growing by about 20 each week. They are small, difficult to see, extremely vulnerable and, at the moment, relatively free from conventional standards, licensing and other requirements."

Then JEN EVANS (Chief and Airspace officer with RAF Manby) examines the implications, while TOM HARDIE assesses the effects of the Highlands Restricted Area.



The Highlands Restricted Area

John Hunter and I have tried every means of normal decent diplomacy at all levels to try and establish a working relationship with the London Gliding Club. This problem has occupied most of my time but it has been a series of frustrations and misunderstandings all through the year. With the BHGA's policy to stand and fight where we are sure we are in the right we have with David Bedding's leadership fought and won the "ground space" problem. As a result of this we at last see a solution to this continuing problem. — a report in due course. The problem of low flying high speed military aircraft has also kept me busy. With all major sites marked on the air maps, I have tried to get the symbol orientated to indicate the mean wind direction in which the site is used. The military pilot would relate the weather information he has to the sites on the chart and thus know which sites are likely to be in use. If he always flight plans his track upwind of the symbol, the collision risk to him and us is reduced by a very large amount. I have the support of the Guild of Air Pilots and Navigators in this and will report on progress in due course. At this point, I must answer Tom Hardie's article Big Brother in January Wings! The Highlands Restricted Area was notified to me well in advance of its implementation. I immediately contacted the Scottish clubs concerned with the details and they assured me that there were

• Flashback to January Wings! and the Feedback bulletin expressing military concern at hang gliding.

## Army name change

The Army Hang Gliding Association changed its name on February 1 to The Army Hang Gliding Group. At the same time, it followed the RAF hang gliding organisation in mixing with its Service sailplaners, and becoming affiliated to the Army Gliding Association.

The view taken by the AGA is that we are both in the business of getting service personnel to GLIDE; therefore

one association makes sense.

The two immediate effects of the affiliation are that from February 1, hang gliding becomes a "Category B" sport in the Army and we will have a joint display stand at the Aldershot Army Display 1982. We need volunteer hang glider pilots to man (or woman?) the stand from June 22-27.

Please contact the Army Hang Gliding Centre if YOU will.



# aggro?

NO sites within the area, and any occasionally used would be the subject of a special arrangement with the military, so long as they were told well in advance.

I also went to the Ministry of Defence to see the man concerned, Sqn. Ldr. Doherty RAF MoD.

He assured me the MoD have the situation under control and that in their view the collision risk is minimal. This is **not** my view and contradicts the RAF's own policy in "Feedback" bulletin, an understandable situation in an outfit as big as the MoD.

Also, why on earth RAF Herculese aircraft have to creep round valleys on sunny afternoons below hill height is something else that continually amazes me and will be the subject of another investigation by me this month.

Since there is such a growing interest in XC flying now, any way of getting more lift for less effort is worth looking at. The obvious and easy way of extending your flight is to go higher. This means **proper** cloud flying. For this you will need a gyro-controlled turn and slip indicator, a compass you know and trust, and if more than one of you are to fly in cloud you **must** have radios, to tell each other what height you're at to avoid collision. I have a PZL turn and slip on test and for our use it's about the best.

It's small — 3½" × 2½" — uses a 4½ volt battery, is a proper glider instrument and costs about £100 s/hand from Simon Westley on 0525 379567 (Leighton Buzzard).

It works well and I am sure that with this aid, the 100 mile XC will be within reach of many of you. Andrew Wilson and Bob Bailey both have them so watch out all you XC pilots, the cloud fliers are coming!

Conspicuity has been in the news as well this year. The obvious way to make others aware of you is to use strobe lights. If I can find 500 of you who would like one for your king post top, I have arranged for an electronics company to supply such a unit, with a clear top and waterproof yellow case for £6 inc. VAT. I can't find anything better than this, so at the AGM I will raise this again to get an idea of your response. If any of you are interested do contact me.

## Complimentary

At the AGM, the BGA will hopefully have a sail plane on display in the hang glider park. They will offer the same facility to us on a similar occasion, and if it proves of interest, then it will also be at Clubman's Mere.

Our two sports are so complimentary it beats me why there has to be all the aggro there is.

I guess it's lack of communication.

Back in the summer we were flying in marginal conditions near Shaftesbury and two sailplanes landed at our site.

They were from Swindon and Lasham and all they had heard about us was what they had read in Sailplane and Gliding. By the time their retrieves have arrived they were having to be dissuaded from trying out our sport for themselves.

## Organised

In 1982 the policy on Airspace is to continue in the direction established last year. There have been relatively few airmiss reports to investigate and I am now organised to deal with these. Do let me know if you have been inconvenienced by any other air user on my phone number **BEFORE** 9pm ONLY. I live and work here and the phone is live most of the time. I will investigate all complaints you make and write them up for Wings! There is always some lesson to be learnt.

The more information I have from you the better I can represent you.

Happy flying in 1982!

# When to go prone

...that's the question that will face many a budding P1 this summer who will probably find him or herself spoilt for answers. The following was first published in the North Yorkshire Sailwing Club's newsletter and was written by MICK FOSTER, then club training officer. The subject is dealt with fully by the standard BHGA textbooks, *The Student, Pilot and Instructor Handbooks* which each cost £2.50 inc. p.p. from the Taunton office and by such other books as Bob McKay's *An Introduction to Hang Gliding*, also available from Taunton (for £2.25.)

Why "go prone" at all?

Is it:

- THE thing to do?
- MORE comfortable?
- BETTER for control?
- TO get higher?

The "thing-to-do" syndrome seems to play a part in the want to convert to prone. More control especially in pitch is available but you will not fly higher as the sink rate of the glider will remain the same. But drag is reduced, so improvement in glide angle is experienced i.e. you will go further.

Against prone flying is the fact that it is physically more exerting, vision is restricted to a downward angle and just sitting there and enjoying the view is out.

The next big question is when to convert to prone. In most cases there is a "slot" in a pilot's career when the time is right to convert. Recognising this slot can be a problem but a few guide lines should help.

The pilot must be at a stage in his or her flying when he or she is generally at ease in the air, in complete control of the glider at all times, has not inadvertently stalled the glider for a long time and is no longer likely to do so, has no problems top landing and is generally aware of changing situations in the air — be it other gliders or wind conditions on the ridge and above all have flown the glider he or she intends to convert for some time.

I hesitate to put a time in the air on this slot, but it seems to fall somewhere in the 5 to 10 hour period. If converting to prone is left so long that your flying has become instinctive it may be that you have left it a little late to convert and find difficulty "teaching an old dog new tricks."

The choice of prone harness is a question of individual taste, prices range from £35 to £75 or more but it must have the ability to allow the pilot to fly the glider in the gorilla position. This facility is your biggest safety feature in the first prone flights — it enables control of the glider to be regained if things get out of hand as in this gorilla position control returns to the same as when flying seated.

## Training notes

There are three things to remember on your first prone flight.

1) DO NOT attempt to get into prone immediately after take off — this eliminates the chance of stalling while looking for the foot stirrup. Establish flight on the ridge, settle down and get used to flying on the A-frame sides in the gorilla position. Note also your landing position — the sides of the A-frame are held when making a landing approach...not the base bar.

2) PITCH control is not a problem when converting to prone, but the bank and turn is completely different so if the turn starts to get out of control IMMEDIATELY GET BACK TO THE GORILLA POSITION, put the glider back on course, settle down and try again later.

3) IN the landing approach, get out of prone in plenty of time, at 50 feet or more. Apart from the obvious problem of trying to land the glider and alter position at the same time, remember you are no longer looking in front, as when flying seated, but more directly downwards at the ground below, which when viewed from this angle seems to be moving rather fast.

The old reaction learnt when seated tells you to slow the glider down, with the inevitable stall. Replace the A-frame sides and read the paragraph again!!

To summarise — consider converting to the prone when you are well used to the glider you fly and your flying is not causing problems to yourself or others. Buy one of the harnesses as recommended i.e. one that can be flown in the gorilla position. Pick a smooth soarable day — turbulence is definitely out. Seek help from an experienced prone pilot. Check your understanding of the turn, as can be practised clipped in on the ground.

Follow this guide carefully and you will convert easily and safely to prone flying.



# PUMA.....



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## Dressed for the cold!

That's Hornet Micro-lights' trike unit, with faired cockpit, and skis to boot! The wing is an Airwave Nimrod (beefed-up Comet) and Hornet's Richard Wolfender is at the controls. Picture — Noel Whittall.



## Airborne Hell's Angels?

The following is reprinted from the Observer and was spotted by Chris Newman who sees micro-flight pilots "going the same way as learner bike riders", whichever way that is...

*'THE Noise Abatement Society is being deafened by complaints about those daring young men in their new microlight flying machines. "I wish I had had a shotgun," said a woman in Tonbridge last week, after being buzzed in the Kent countryside.*

*Warmer weather will bring out the roof-skimming microlights — 60 m.p.h. planes powered by 30 horsepower engines — in their hundreds. The pilots do not need licences. Last year, Britain's enthusiasts were only numbered in dozens.*

*A leading opponent of the machines is Dr. Michael Hutchings, a physicist at the Harwell atomic research establishment. "They are an environmental disaster — more of a nuisance than Concorde," he says. "The authorities seem to be doing nothing to control them."*

*Hutchings's ire has been roused by the noise from a microlight plane used by a neighbour in the Oxfordshire village where he lives. He derides plans for the flyers to set up their own code of behaviour: "Like inviting a group of Hell's Angels to invent their own Highway Code."*

*The microlight models cost around £3,000 and are mainly imported from America and Australia. One importer — and flyer — is Gil MacMillan of Ayr, Scotland. He says: "Interest is growing very fast — training schools are springing up everywhere."*

# Not a 'Dai' at the Races!

DAI came galloping across the gliding club runway like a pregnant carthorse with a bad attack of gout and, from a recumbent position beside the car (which position he'd arrived at courtesy of a freshly deposited pile of slippery sheep's gasped, "The very man!"

by Ewart Jones

As I hauled him to his feet, I wondered what the hell I was getting lumbered with this time. There was always a catch in it with Dai!

"It's our aero-modellers," said he, grunting like someone was using his belly as a trampoline, as he brushed vainly at the sticky green goo adorning the seat of his otherwise immaculate check golfing trousers.

□ □ □

"We're putting on a bit of a demo—local farmers' show. Buzz over and do your party piece.

"Whoa now! Hang about! Where the hell's the show? What time? And what about this bloody wind?" I said, politely drawing his attention to the 18 to 20 knot breeze blowing straight down the runway.

"Oh, this wind's nothing," said he, airily (if you'll pardon the pun) waving his hand and drawing on the vast experience conferred on him by (at least) two hours' air-time in the club's training glider.

"It's only five miles away — due west over the hill — you can't miss it. I'll wear my red hat — wave you in with a red flag — big field — be there half past two," and with that, oh so adequate, briefing, he slammed his car door,

revved up the engine, and was gone!

"Bloody hell! I do get lumbered," I moaned to myself, as I rigged up my newly-acquired Demon trike. "Talk about short notice! He's only given me a blasted hour."

Like I said, it sure was blowing, right on the nose, and the hay-fields below were sending up thermals like dehydrated waterspouts. It occurred to me, that not only was I round the bend, but halfway up the straight to boot.

"Hey! Dai's navigation's a bit out," I said to myself, as I crossed the hill. There was the show, sure enough, but at least a mile further to the north. "What sort of show is it?" "Dai's briefing hadn't included that piece of information. "From this height it looks like radio-controlled model cars, racing around a circuit." I flew nearer. "Hell, model cars wouldn't kick up that much dust. It's bloody motor bike grass track racing."

Two thirty on the dot. I rounded out, five hundred feet above an adjacent field. The crowd below went mad. They waved and waved, arms, hands, programmes, scarves and even what looked like old socks. What a reception! This was great! I took a mental bow and went into my party piece.

For such fervour I gave my all.

Whipstalls followed wingovers, wingovers followed chandels and countless variations on the theme, most of them accidental, (I said it was rough up there) but what did it matter? It was all for the delight and delectation of this most enthusiastic of audiences.

□ □ □

"Show over. Now what?" I thought. "Ah, there's Dai — red hat - red flag up. O.K. I'm coming in. Field's smaller than he said. Big enough though. Looks like I'll have to go in under those wires." Bump, float, bump, and I was down. Straight down the middle of the circuit. Magic! The crowd broke ranks and raced wildly towards me, and I stood up to receive the acclaim that was rightly mine.

"Stupid bastard!" I heard someone shout. "I thought it was a kid of 12 flying like that. "It's time you grew up," yelled another, while yet a third voice penetrated above the blood lust roar of the crowd: "You're a bloody menace," it said. "You ought to get your arse kicked."

I looked around bewildered. Hell! Those weren't hands that were waving at the ends of all those upraised arms. They were clenched fists. The hot flush of embarrassment swept over me like a breaking wave.

Oh hell! Got it in one! The guy with the red hat and matching flag wasn't Dai at all. He was the race starter.

I was at the wrong bloody show.

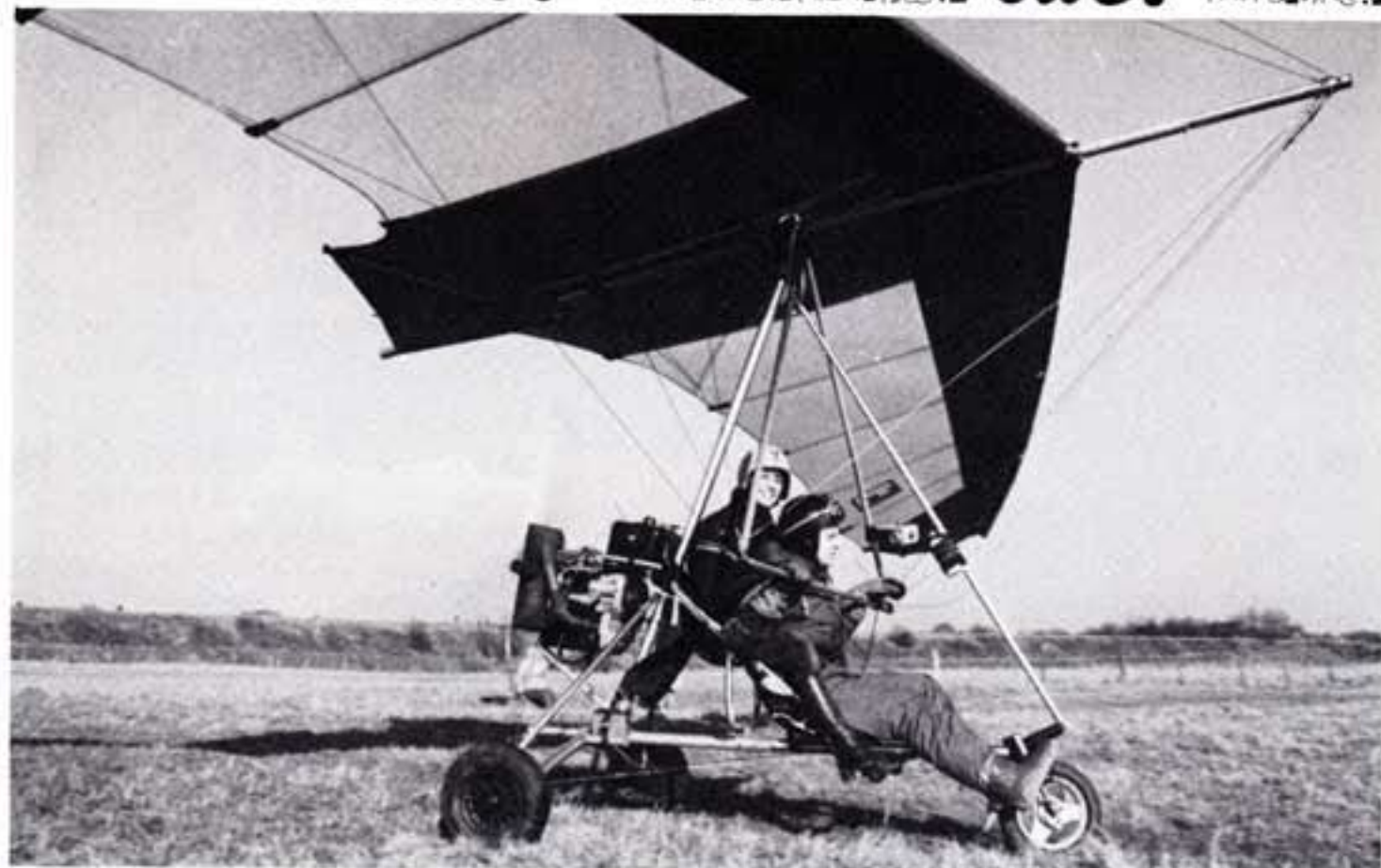
□ □ □

## Pilots wanted

The Aldershot Army Display 1982, may well be opened by the Army Hang Gliding Group making a fly-past on powered hang gliders. However, what is needed is a group of powered hang glider pilots with machines and the skill necessary to make such a display.

Any serviceman who wishes to take part in the fly-past and who can devote the time to rehearsals for it, should contact the Army Hang Gliding Centre as soon as possible.





# Power at Mainair

**MAINAIR Sports has announced two new models of the Tri-Flyer kit trikes.** Pictured is a Tri-Flyer two seater monopole-design trike, robustly-built primarily as a trainer, and with a 440 cc twin Robin engine which gives around 600 ft per minute climb with two 12-stone people.

It features tandem seating for efficient training, electric and manual start, extreme quietness from the 62" prop and is designed to suit the Flexiform Striker two-seater wing, or the Southdown Lightning DS.

The kit costs £1,550 including VAT, and is available ready to fly for £1,950 including VAT.

The kit for the Tri-Flyer 330 will be available from early March, says the firm. This is the unit which recently took Bob Calvert to 16,500 ft and is the two cylinder version of the 250 Tri-Flyer. The price will be £1,175 or £1,395 ready to fly.

□ □ □

After Bob Calvert's successful flight to 16,500 ft. A.S.L. on a standard 330cc Tri-Flyer, Mainair's John Hudson has decided to build a special record machine.

This will be a "one-off" trike featuring a full pilot cockpit, fully-faired airframe and undercarriage and powered by a 440cc specially-worked Robin engine.

## Nick Regan

*Last month's Early Days feature refers to Nick Regan as the "retiring Flight Line Editor". Nick is, in fact, not retiring — he is reapplying for the post which is being readvertised by the British Microlight Aircraft Association. The information came from a normally reliable BMAA source. Sorry Nick.*

## John Chotia

An item in February Wings! on the death of US ultralight manufacturer John Chotia stated incorrectly that he was killed testing a "rocket-powered prototype". This should, of course, have said "his Rocket prototype". Wings! apologises for this misleading error.

"The aim is to take every world record for height, climb rate and to win every air race entered," says John.

Although it is theoretically possible for anyone to bolt on a large engine, the science is far more exacting than that and John feels that the huge amount of knowledge gained will reflect strongly in the production range of Tri-Flyers.

Bob Calvert will again be the company's pilot and regardless of machinery John recognises that success will depend heavily on Bob's undoubted skill and tenacity.

Confusion still surrounds the 16,500ft. world altitude record claim announced in last Wings! John Campbell is said to have reached 21,000ft. on a P-traveller in the USA but this is not thought to have been officially ratified.

See also Letters Page opposite.

• Geof Ball



Mainair also announces that Geof Ball, a 33-year-old League and microlight pilot, will be joining the organisation to expand and run its power side.

"We are about to open our new 2,000ft. showroom, which is to be the 'trike centre of the North,'" said John.

"Geof, who has represented Great Britain in international competitions, holds a BMAA provisional instructor rating and has spent the last year building and working on glider/trike combinations, is eminently qualified to run the new venture.

"The appointment will allow us to greatly increase our coverage of triking and it is our intention to visit many hang gliding and microlight clubs this year, with our dual and single seat demonstrators.

"Any club who would like to arrange a triking weekend is asked to write to Geof at Mainair Sports Ltd., Shawclough Road, Rochdale, Lancs, OL12 6LN.

# Why this boring power?

Dear Stan,

I'm told that 90 percent of microlighters are also hang-glider pilots. I wonder, however, if 90 percent of hang-glider pilots are interested in microlights.

Perhaps the majority possibly don't give two hoots and wish that the expensive pages in Wings! were devoted solely to the unmotorised form of flying. Reading about some chap's flight from A to B can be as interesting as a motorist's report of a drive to the shops — Utterly boring.

Motorised has nothing to do with hang-gliding, and as it has its own magazine called Flight Line, to which the serious devotees surely subscribe, I fail to see any valid reason for cluttering up Wings! with photos of engines and reports of latest developments.

Wings! is paid for by subscriptions from hang glider pilots, so I suggest that you drop all power articles and concentrate on hang-gliding.

Arguments about "together we win, divided we fall" are erroneous and irrelevant. You

don't, after all, read about hunting in the racing press, or powerboats in sailing magazines, cars in motor cycle magazines, or gliding in the light aircraft press.

So why lump hang gliding with microlights? Let Wings! be seen to be divorced from motorised. Thereby, any air law infringement by either branch will not lead to both pastimes being held responsible.

Motorised will grow, prosper, and succeed with no help from unmotorised fliers. Hang gliding is hang gliding. Motorised microlights are something TOTALLY different.

RICHARD GIBBS  
Oxford

• The "expensive" pages of Wings! are heavily subsidised by adverts for microlight aircraft — I would be particularly interested to hear from pilots enjoying both powered and free flight whether they find the Power section relevant — Ed.

# A change is OK but...

Dear Stan,

Please accept this letter as my views, rather than my criticism of the Wings! magazine.

I prefer the magazine lay-out of pre-August 1981. Although I like to see a change, I do feel that certain things, such as the Editor's page and index, should be in the same position of the magazine.

I do agree with Richard Kenward, Abergavenny. His letter in January Wings! reflects my sentiments. Especially con-

cerning the poor choice of words used in the December issue.

Although I prefer the full colour cover for Wings!, I do not believe it is essential for a good magazine.

I certainly do not envy you, having the job of editor.

I like the quality and quantity of photographs used, I don't think there could be too many in the magazine.

D.W. CLARK,  
Herne Bay,  
Kent.





All letters should be sent to the Editor at 72 Hartley Avenue, Leeds LS6 2LP and should be signed and written CLEARLY on one side of the paper only.

# Profanity on the decline

Dear Stan —

May I congratulate you on the reduced level of profanity in February compared to December Wings!

Most thinking people would agree that swearing adds no real descriptive value to what is being said, but only degrades both the article and the magazine.

It would be naive to think only four out of 3,900 members object to bad language in the national official medium of the BHGA (not just a club magazine). I personally find bad language ugly, tiresome and distasteful.

After all, most would also agree what is said on the hillside is not really for general circulation, nor is it a moral datum for publications (!).

I look forward with many others to future articles on actual hang gliders (performance, characteristics etc.) and hang gliding flight experiences and achievements (hopefully with less emphasis on personalities) as hinted in January's issue.

P.S. ref. Ewart B. Jones' letter, I do NOT subscribe to Playboy, Penthouse, the Sun etc. (!)

A. TAYLOR  
St. Alban's  
Herts.

## Lighter kites please

Dear Sir,

Being an owner of a current heavy weight CFX glider. I would like to see manufacturers developing lighter machines for the future. (the Germans have done!)

Also, how about really lightweight trikes; the big danger of triking is the possibility of a hernia in lifting 100lbs+ onto your car roof!

J. MARSHALL  
Southampton

## Army surplus offer!

Organising a competition? — Need some equipment?

We had various things made for our championship and bought some others. It's a shame to put them away and not use them till next year — Perhaps YOU could use them at YOUR next competition?? We have: A Froghorn (An airblasting foghorn — you'd have to pay for the air canister, though) — two hexagonal lollipops 2'6" x 2'6" and 6' high, dayglo red one side, white on t'other — 4 round bats 12" dia and 2' long — yards of marker tape — seven plastic cones — lots of task score sheets — lots of consolidated score sheets.

If you do want to borrow them, contact Jim Taggart, Army Hang Gliding Centre, Sennybridge, Brecon, Powys.

## Billow pulley system

I have been using a pulley system on my Typhoon cross spar tension cables to vary the billow tension in the sail. It's been a great help on our low Dorset hills, where handling close in to the hill is the no.1 priority, especially on thermic days when it can be rough.

Once you have established a safe height then you tighten up the sail and improve the performance at the expense of handling. If I'm coming in to land the sail is off tension and I have the handling back again.

It's fail safe and Solar Wings will advise how to fit it.

Ted Frater

## Lottery Winners

The winners of the February 500 club lottery are as follows:

A.K. Wilkinson £53.02; H. Unsworth £26.51; J. Hammond £13.25; P.D. Prentice £7.95; A.D. Edwardson £6.62; B.G. Page £6.62; C. Barry £5.30; J.A. McCulloch £5.30; A.A. Turner £4.00; B.D. Ginever £4.00.

That makes £132.00 prize money and a like amount for BHGA funds.

# Powered flexwing in 1961!

Dear Stan, —

After reading in the February issue of Wings! about Bob Calvert claiming a microlight altitude record of 16,500ft — what a great achievement, by Bob.

Sadly, now wait for the crunch! We now look aloft for the Flex Wing "Jumbo" plane, nick named the "Flying Flivver."

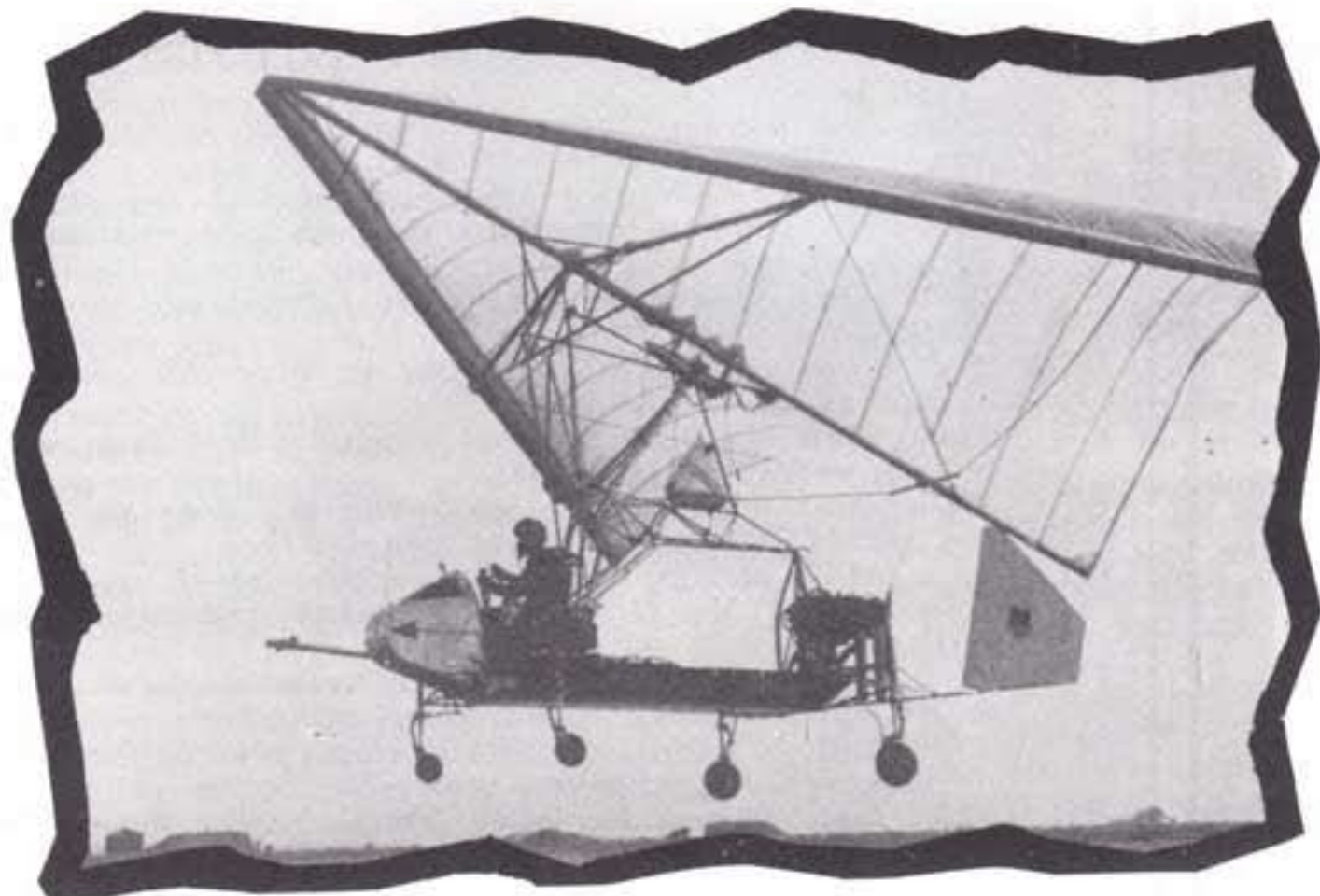
This was a Flexwing originally conceived by F.M. Rogallo. This was being tested by Ryan Aeronautical Company of San Diego, California.

• Flexwing, maybe... but at 1,100lb not quite a microlight! It would be interesting to know whether the Flying Flivver ever actually attained its design ceiling — Ed.

It was powered by a 180 hp. Lycoming Engine. *Mechanix Illustrated* November 1961: "The 1,100 lb Flex Wing has been designed for a gross weight of 3,000 lbs. It can take off in 500 ft. cruising at 90 m.p.h. and (wait for it) has a ceiling of over 20,000 ft.

"In addition to their military application Flexible wing craft could open a new field of inexpensive sport flying."

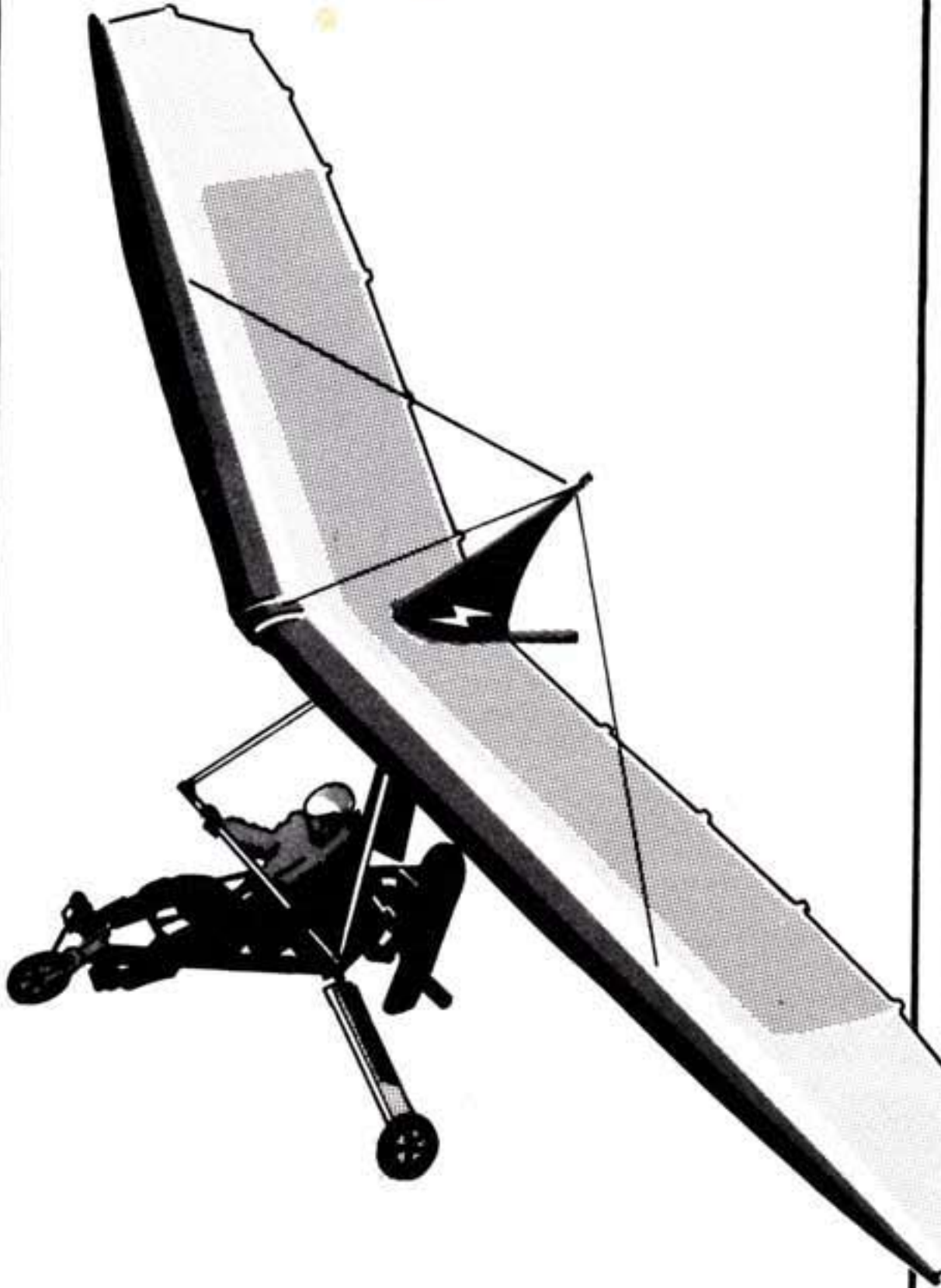
PAUL SMITH  
Wakefield



The Flying Flivver as depicted in *Mechanix Illustrated*



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Telephone Brighton 732007

\*\*\*LETTERS\*\*\*LETTERS\*\*\*LETTERS\*\*\*LETTERS

# 'bye Tony!

Dear Stan,

This is to let all my hang-gliding friends and colleagues know that as of the beginning of April, I will be starting a new job based in Brussels.

While it's obviously a big thing for me personally, and I'm very pleased about it, I'm also a bit sad, because I expect that I will inevitably tend to lose touch with the flying activity in this country, and I won't be able to see all my friends.

So could I use the columns of Wings! to express my very sincere thanks to a great bunch of people. I count it as a personal stroke of great good fortune that I got involved in hang gliding at the time when I did — when everything was new and exciting, and where a vast realm of untapped possibilities lay open to us, the prophets of a new era of personal, free flight.

It is not given to very many people to be present when men attempt and achieve things which have never before been done. I have been lucky — I've had a ringside seat on many occasions which have been crucial to the development of the sport.

I have known the personalities, chronicled the events, joined in the arguments, and done what I thought was necessary to preserve our right to fly.

In the process I have made a lot of contacts and personal friendships which have been forged under very tough conditions, and proved time and again.

And now, the Fuells are off to a new life in a different



Tony, pictured by Adrian Whitmarsh, with Jimmy Savile. Tony "Santa" was handing over a cheque raised by the Southern H.G. Club

country. There IS hang gliding in Belgium, I'm told, and for sure it's going to be easier to reach those mountain sites in Germany and Switzerland, so I'm hoping to keep up my airtime, and I'll keep the articles coming as much as I am able, to let you know what the continental flying's like.

So, once again, thanks to everyone in the BHGA — you'll see me from time to time. Please accept my apologies for not writing individually to personal friends — I'll try and catch up on my correspondence when I get settled. For the time being, mail will reach me through my usual address below.

TONY FUELL  
74 Eldred Ave,  
Brighton,  
Sussex.

## The ten commandments for hang-glider pilots

- I. Thou shalt maintain thine airspeed lest the earth rise up and smite thee
- II. Thou shalt not let thy confidence exceed thy ability, for verily I say unto thee, this is the path to destruction.
- III. Thou shalt honor thy ground crew for there is dignity in their quiet repose as they wait breathlessly for thy landing.
- IV. Thou shalt inspect thy kite lest ye give thy guardian angels cause to abandon thee.
- V. Thou shalt maintain eternal vigilance lest thy wings become entangled with angels.
- VI. Thou shalt not flye in thunderstorms, else thee give thy friends and relatives cause to mourn thee.
- VII. Thou shalt always receive a harness check, for thou knowest that Ms. Gravity is a jealous and unforgiving mistress.
- VIII. Thou shalt respect the structural limitations of thy kite for ambulance rides can be long and painful.
- IX. Thou shalt not partake of any stimulants prior to ascension for thine area of confusion is vast.
- X. Thou shalt respect thy body lest ye anoint thyself for eternal rest.

Dana Burnett Chapter Ten Oklahoma City,  
Oklahoma Hang Gliding Association



# Azur and Magic show early promise for '82

No St. Valentine's Day Massacre, but the first opportunity to see some of this year's gliders in competition.

MICHAEL CARNET reports from Montfaucon, Normandy, on the February 13-14 manufacturers' comp.

MONTFAUCON (Mount Falcon) is in the North of France, 15 miles from Dieppe, near the village of Blangy.

It's 150 feet high and allows take-off in all wind directions.

Montfaucon is an ideal site for hang gliding schools. For the past two years the local club, Normandie Vol Libre, has organised a L.D. competition which has been very successful.

For 1982 they decided to run a manufacturers' competition, thinking there would not be one in Britain (how right they were). They invited every European manufacturer.

Hiway, Airwave Gliders and Southdown Sailwings promised they would be present.

Confirmation also came from Belgian, Swiss and French manufacturers.

**Day one** — it is raining, foggy and the south-westerly wind is strong. The task consists of crossing the take-off line, flying cross wind to a pylon 100 metres away, then turning into wind to cross the final line 50 metres from the pylon in a minimum time.

This is a very good task because it shows the glide performances at different speeds and different directions. If you are pulling the bar in all the way along, you will not reach the final line.

Competitors can make as many attempts as they wish, but only the two best score.

There are 50 points for the first pilot, 49 for the second etc... Manufacturers can enter a maximum of five gliders, but only the three best will score for the team prize.

Ten manufacturers are present: Airwave and Southdown (Hiway could not make it), La Mouette, Pacific Wings, Eole 2000, Veliplane, Voilerie du Vent and Ailes M.B from France, Delta Fulmar from Belgium and Rithner from Switzerland. They are represented by about 50 pilots, carrying their gliders to the top in 20 minutes to fly down in 25 seconds.



Montfaucon

Pierre Girardet is the first pilot to try the task on his Simoun from Ailes M.B: the time to beat is 30 seconds. Andrew Wilson is going for a "29" on his Airwave Magic. Everybody is waiting for the rain to stop while Pierre Girardet, back to the top, gets a nice "26". Michael Carnet on his Magic flies down in 25

before being eaten by Gerard Thevenot and Renaud Guy, both on the La Mouette Azur in 23 and 24 seconds.

Three of the five Azurs are partly Mylar-coated and have no luffing lines, which decreases profile and induced drag.

Times are slowly dropping to 22s and 21s with a very good 20.5 from André Chayrou on his Pacific Wings Vampire II (all Mylar-coated, no luffing lines).

Many pilots are making the same mistake, which is to fly very fast in the cross-wind leg and to slow down

and use the ground effect to pass the final line. As everyone knows, to fly at maximum L.D. you should push in the presence of lift or going downwind, and pull in the presence of sink or going up wind.

Therefore, the right thing to do is to fly at moderate speed to be high enough at the pylon to pull the bar to the knees and pass the final line without ground effect.

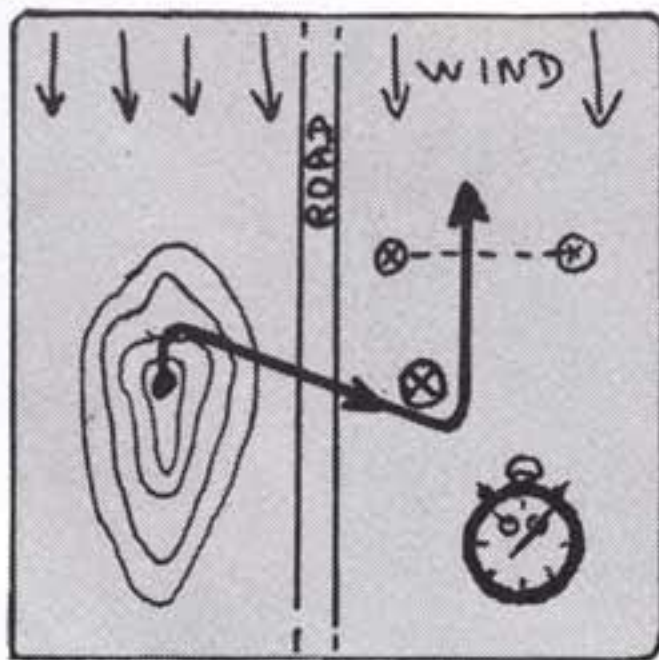
Gerard Thevenot knows the theory, is a very good pilot and is leading at the end of the first task. Gerard does not have the best time, but has the best average of two.

## Speed task results

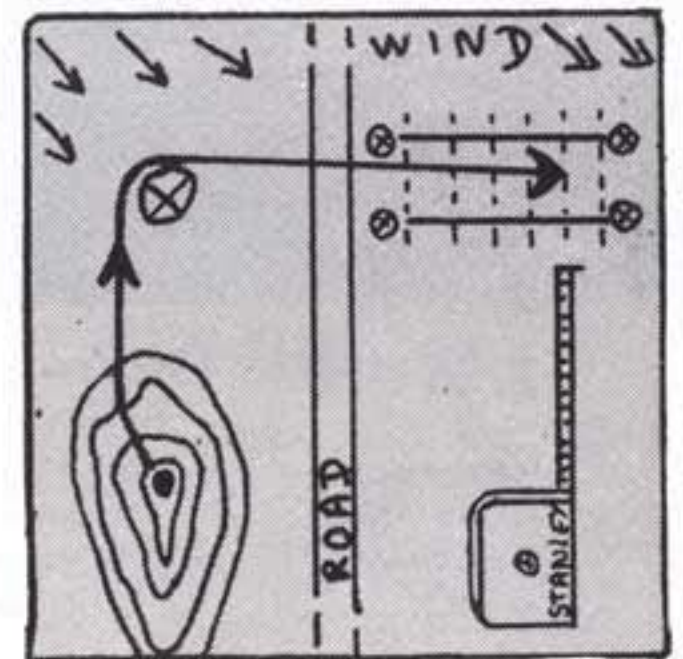
1. Thevenot	Azur, La Mouette
2. Chayrou	Vampire II, Pacific Wings
3. Girardet	Simoun, Ailes M.B.
4. Guy	Azur, La Mouette
5. Carnet	Magic, Airwave Gliders
6. de Glanville	Magic, Airwave Gliders
7. Saite Marie	Azur, La Mouette
8. Brenneur	Vampire II, Pacific Wings
9. Declerc	Vampire II, Pacific Wings
10. Huedelston	Magic, Airwave Gliders

**Day two** — the sky is blue, the wind is still south-westerly but lighter. There are a few fog patches at the bottom of the site which are disappearing.

The task today is maximum L.D. with a pylon 100 metres into the wind, then a cross-wind leg to the landing between two longitudinal lines.



Speed task



Sink rate task

Scott Sigal from Switzerland on a Rithner Piranha is leading for one hour before Thevenot shows who he is by landing 20 metres in front of everyone. Later, the wind is turning to

**continued over...**



## ...continued

the south, which means that the landing is slightly downwind.

Maximum L.D. downwind means pushing the bar, so this is almost a sink rate task, because the longer you fly, the further you go.

During the afternoon everyone is trying to beat Thevenot's performance. To gain a few inches landings are done prone, crash being authorised.

A few uprights are bending and few pilots are swinging into their keels.

Mike de Glanville and Dominique Cruccianni, both on Magics, are doing well. There are four Magics in the top six and except Thevenot's the Azurs are not doing their best.

### Sink rate results

1. Thevenot	Azur, La Mouette
2. de Glanville	Magic, Airwave Gliders
3. Cruccianni	Magic, Airwave Gliders
4. Maillot	Simoun, Ailes M.B.
5. Wilson	Magic, Airwave Gliders
6. Carnet	Magic, Airwave Gliders
Dalez	Piranha, Rithner
8. Guy	Azur, La Mouette
9. Sainte Marie	Azur, La Mouette
10. Darras	Simoun, Ailes M.B.
Sigal	Piranha, Rithner

It is surprising to see that some gliders which were good in speed on day one are not good in glide/sink rate on day two or vice versa.

Pacific Wings had three Vampire IIs in the top ten in the speed task, but none of them is in the top ten of the L.D./sink rate task.

On the other hand, the two Rithner Piranhas in the competition which were poor in speed are both in the top ten for sink rate.

Obviously the winning glider will be the best compromise - the Azur and the Magic seem to be the best examples. The Simouns have been good on both days but unfortunately inconsistent amongst their pilots.



Let's talk about the other gliders. The Belgian Rival from Delta Fulmar, the Alpha from Eole 2000 and the Samurai from Veliplane are all clones of the same glider.

These three manufacturers together bought a Typhoon, cut it in pieces and each made their own glider. They are not even as clean as a Typhoon, and this could explain their poor scoring.

The Phebus from Voilerie du Vent is another CFX with nothing special or

exceptional. Only one was flying and the pilot managed to beat the Lightning II of Keith Reynolds and five Samourais. Voilerie du Vent was also introducing the Vendest, a new design which looks like the Hiway prototype Alien.

When free flying the pilot seemed uncontrolled, going sideways, but managed to land. The second flight was rather peculiar: as it took off, the glider turned left with the pilot in the right angle of the control frame, then stalled, started spinning and hit the ground: the pilot was unharmed.



We did not see very much of the Lightning II from South Down Sailwings. On the first day, Keith Reynolds did not fly, because of the rain. On the second day, after a poor flight, Keith decided to stop competing.

It is a pity all the British manufacturers were not there, but I am sure next year they will be.

This was a very nice competition with a lot of interest shown from potential customers, without the noise of any trikes and with surprising changing wather.

The local "pub" hosted the prizegiving as darkness fell. Gerard Thevenot was glad to be the first pilot as well as the first manufacturer. Rory Carter, the director of Airwave Gliders, and Graham Deegan the designer of the Magic Touch were pleased to see their glider so close to first place. But the true winner is still Roy Haggard for having designed the original Comet two years ago.

We will all be back at Montfaucon in '83.

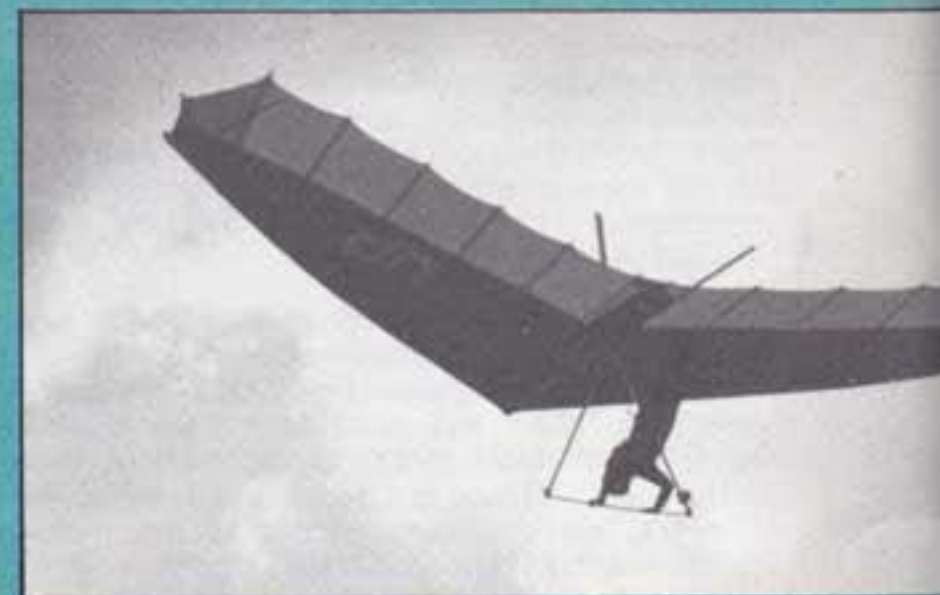
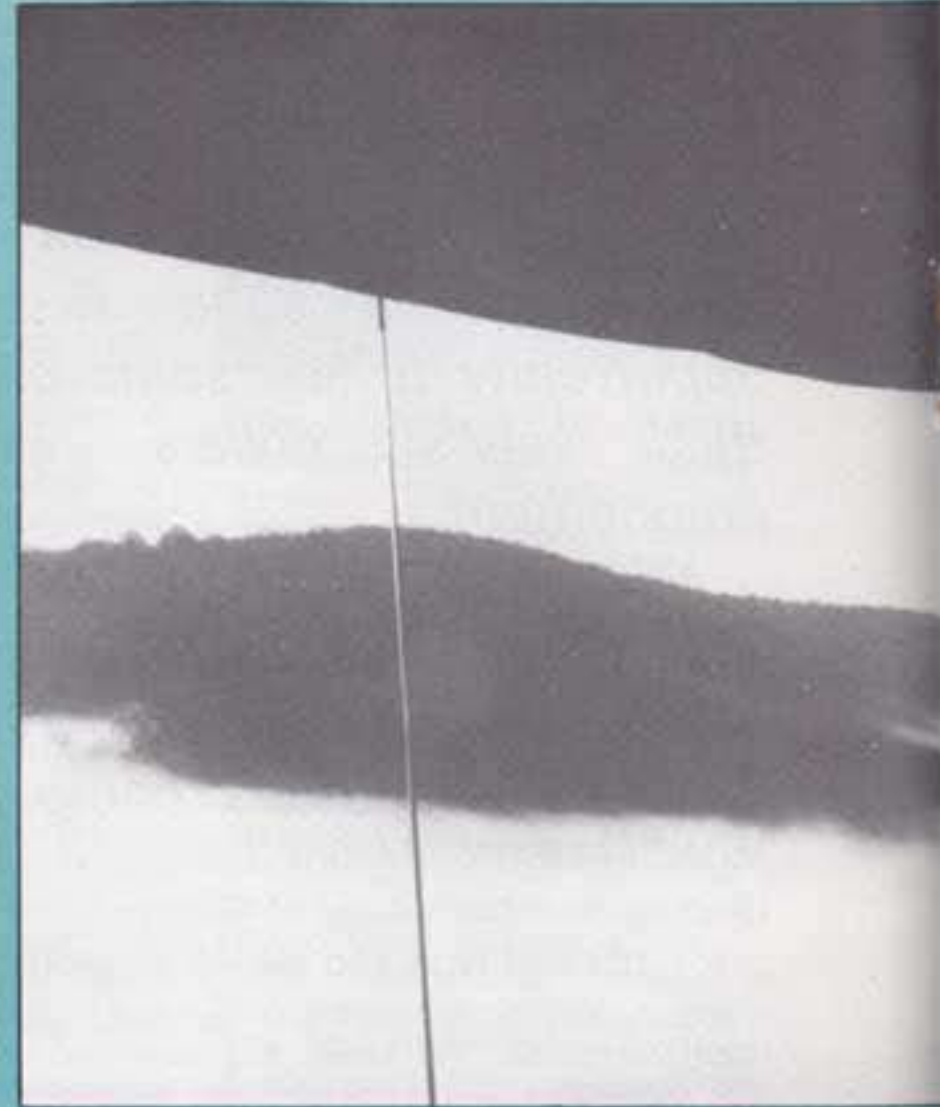


• The cows watched impassively

### Overall individual results

1. Thevenot	F	Azur, La Mouette
2. de Glanville	F	Magic, Airwave Gliders
3. Carnet	GB	Magic, Airwave Gliders
4. Guy	F	Azur, La Mouette
5. Chayrou	F	Vampire II, Pacific Wings
6. Sainte Marie	F	Azur, La Mouette
7. Cruccianni	F	Magic, Airwave Gliders
8. Wilson	GB	Magic, Airwave Gliders
9. Girardet	F	Simoun, Ailes M.B.
10. Delez	CH	Piranha, Rithner

• Below  
Montfaucon  
Simoun



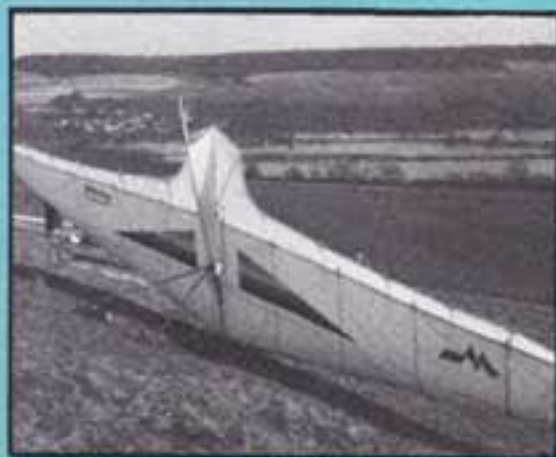
### Overall team results

1. La Mouette	Azur	488 points	3 gliders
2. Airwave Gliders	Magic	460 points	3 gliders
3. Pacific Wings	Vampire II	353 points	3 gliders
4. Ailes M.B.	Simoun	337 points	3 gliders
5. Rithner	Piranha	209 points	2 gliders
6. Delta Fulmar	Rival	111 points	3 gliders
7. Eole 2000	Alpha	48 points	3 gliders
8. Voilerie du Vent	Phebus	12 points	1 glider
9. Veliplane	Samourai	10 points	3 gliders
10. Southdown Sailwings	Lightning II	2 points	1 glider



Pictures by  
Michael  
Carnet

...early morning on  
...uson, Right, the  
...from Ailes MB.



• Above, the Vendest; below, — Keith Reynolds on the keel-pocket Lightning.



• Above, left, winner Gerard Thevenot on the Azur. Left, Michael Carnet on the Airwave Magic. Above, Pacific Wings's Vampire II.

# £1 subs rise proposed

**AGM spot**

ATTRACTIONS at the BHGA annual meeting and conference at Lilleshall on March 20-21 will include displays by at least eight manufacturers, a sailplane and — subject to insurance approval — power flights.

BHGA council agreed narrowly to allow power flying if insurance cover can be obtained and the latest position can be found by ringing the Taunton office.

Treasurer Percy Moss told council he would be reporting

reserves of about £14,000 and asking the AGM to approve an increase in membership fees of £1.

Council approved the proposal on the basis that the association had to "guard against unforeseen circumstances".

Diane Hanlon argued strongly for no increase as she said many members were unemployed, particularly in the North, and found it increasingly hard to meet BHGA, Club and petrol costs.

## FLIGHT BRIEFS

### Mid-air breakage

British pilot Sandy Fairgrieve has written from his new home in California to report that on one of his first visits to a local flying site he witnessed a tragic accident in which a pilot's carabiner failed during a misjudged wingover, leaving him to fall 250 feet to his death — full account next month.

### Accident verdict

A coroner recorded an accident verdict on the death of Andrew Redfern who was killed at the Ibis (South Wales) School of Hang Gliding.

Meanwhile, school proprietor Mike Adam has reportedly sold up and left to set up in Australia, BHGA council heard.

### Sorry!

An article in January Wings! gave the erroneous impression that Bettina Gray's photographs are published "gratis" in Wings! In fact as Bettina wishes to make clear, they are provided in return for numerous "services rendered". Pictures of Graham Hobson and Rob Bailey on page 24 of that issue should both have carried Bettina Gray credit lines. Wings! apologises for this omission.

### Tow meet

A meeting to pool knowledge on towing will be held in the Midlands on June 5-6 at a venue to be decided.

### Instructors' date

There will be a BHGA Instructors Course at the Army Hang Gliding Centre from June 25 to July 1.

### First XC

The year's first entry to the Cross Country League has been lodged with organiser Dave Harrison.

Marc Asquith, Mercian Club, flew 12 miles in wave in south Wales to land at his declared goal, Swansea University, where he was a student.

He made a 4,100ft. height gain on his Demon.

### Scottish Open

This year's Scottish Open Competition — won last time round by Bob Calvert — will be held on June 25-27 at Glenshee, near Braemar. Further details soon.

### Chris's 'benefit'

As announced last month, BHGA secretary Chris Corston is leaving the organisation after many year's service. Benefit matches are a bit hard to organise in our sport so council member David Bedding is organising a "whip round" instead. Any donations should be sent to Percy Moss, treasurer, 40 Moseley Road, Kenilworth, Warwicks, CV8 2AQ and crossed "CC benefit" to help Chris in his future plans to aid young unemployed.



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# What really happened

## Skyhook's Len Gabriels on John Clarke's accident

Copyright —  
Len Gabriels

ON November 6th 1981 John Clarke crashed his Sabre trike whilst testing a parachute system. On February 5th — three months later — I saw for the first time, movie film taken of the accident.

In between, when asked to explain why it happened, I was unable to do much more than offer an opinion based on my fleeting memory of the accident which I witnessed from about 500 ft. directly above John.

At the time I was flying our two-seater with a photographer on board, having been asked to assist in recording the parachute test. A photograph taken from that trike has already appeared in Wings!. The photo was taken vertically downwards and shows the trike completely upside down with the wings still intact — not the sort of thing which would be likely to happen if the wing had tucked at speed.

Now that we have been able to closely examine our video copy of the film, it is possible to see what happened and I believe the evidence shows that this would happen to any similar trike combination.

First, the facts:-

- 1) The glider was descending vertically at about 31ft. per second but with the wing in a substantially horizontal attitude, due to the chute being attached at the heart bolt area (c.g. point). The descent rate is deduced by timing the film from the moment when the canopy opened fully at 1000 ft. until it was cut away at 500 ft. (the last two figures supplied by John Clarke).
- 2) The glider — even though stalled and not gliding — was nevertheless straining forward at an angle of 35° to the vertical. (This shows clearly in one or two frames which show a side view). From the known total weight of 350 lbs. this proves that something was thrusting the wing forward with a force of 245 lbs. The engine, having been stopped could not be responsible. (The photo in January Wings! shows the engine running, but that was taken on a previous deployment).

- 3) The roached tips of the sail were being forced up to an angle of about 45° by the vertical descent of the flat sail. This is obviously where the 245 lbs. of thrust was being mainly generated and of course there was also a fair amount of force trying to push the tips up and the nose down.
- 4) At the moment when the chute was cut away, the wing — released from its restraint — shot forward as a result of the 245 lbs. thrust. (I remember that my impression at the time was of a "catapult" effect and I knew within a split second that the wing was going to go right round and tuck).
- 5) The trike, with nothing to accelerate it, remained behind to such an extent that in less than 2½ seconds the whole lot was completely upside down, wheels up to the sky like a dead sparrow. The front stay of the trike was pulling at the control bar and in effect pulled the nose under.
- 6) By using the canopy as a reference point (its descent rate after cutaway would be negligible) and the image of the keel of the glider as a yardstick, it is possible to measure the distance travelled by the wing throughout the manoeuvre until the canopy went out of shot. This shows that the vertical drop between releasing the chute (when the wing was horizontal) and the point when the wing had rotated through 90° and was vertically nose down, was 36 ft. and when the wing was completely upside down, a further 36 ft., a total of 72 ft. At no time did it hesitate and start a straight dive.
- 7) The distance travelled by the wing until it was upside down, allowing for the elliptical path, is 84 ft., all in 2½ seconds. The average airspeed was therefore 23 mph, just below stall speed. At no time before it went under, did it reach flying speed and therefore could not produce any corrective action. The wing could have been shaped like a plank or a block of wood for all

the difference it would have made.

The very large amount of force required to accelerate the 280 lb trike and pilot sufficiently quickly to kill the manoeuvre right at the beginning before the wing started to go under (which took just over one second) could not have been generated at that time when the airspeed was quite a bit lower than the flying speed.

Unfortunately the cameraman stopped filming when the wing had become totally inverted, probably through shock, so there is no record of the way in which the leading edges broke. As the Sabre has been dynamically load-tested to 1,600 lbs without breaking, and the leading edges are the same either way up, there was probably a shock loading but we have no way of proving what could cause such a load.

Keeping the engine running on full power might have brought the nose up though it would probably have been hairy, however it was switched off and John didn't have this choice.

I feel that there are lessons in this for all trike fliers.

Although the machine was in a very unnatural attitude which it would be difficult to duplicate in ordinary use, it would be possible, by whipstalling and pulling the nose down at the moment of stall, to end up in a similar situation.

Some further thoughts about various other things which are relevant to this and perhaps any other accident...

I feel that any film etc. which may be in existence, showing details of any accident, should be immediately made available to those with a genuine interest in studying the details i.e. the manufacturer, BHGA and BHGMF and not used solely to promote sales of other manufacturers' products.



• Flashback to December Wings!

continued on page 31



# RENDEZVOUS WITH A GLIDER



Last month MICK POLLARD wrote about a day's sailplane flight over Owens Valley, California, and told how he dreamt of repeating the experience on his hang glider. The very next day that dream came true...

THE following day dawned with me waking Chris for an early breakfast — it was his turn for the Astir, and my final day hang gliding in the Owens.

As I had to leave early to catch my ride up Piute Mountain, I bid Walt and Chris a good flight and set off to load my glider on to the truck.

On my last day's flying I didn't want to do a distance flight, but wanted to do more than just fly around aimlessly, I therefore decided that I would try to (1) get my best height gain and (2) go higher than I had ever done before.

I got Tom Kreyche to fill my oxygen bottle, which was unusual as I hadn't bothered too much in the past month, oxygen being a real hassle to set up.



I thought that in this case it would be a good idea, in the light of the previous day's experience. So, duly armed, I made my way to the truck and we set off on the grinding journey to Five Gallon launch on Piute, stopping briefly at one of the artesian pumps to full up with water.

Piute Mountain is the arch sacred mountain of the Piute Indian, and of the many times I've driven up there, I don't think I can remember a time where the vehicle didn't suffer in one way or another. This occasion was no exception, as we tore a tyre to bits on the way up!

I was a bit apprehensive on launch as I set my glider up, as on my last trip up there two days before the dust devils had been vicious, turning my glider over twice and damaging the leading edge of my sail.

However, on this occasion the devils were absent, and I was able to rig without incident, all the time looking for Walt and Chris in the sailplane.

A couple of pilots launched, and had a tough time of it to get away. I decided to wait a while to see if conditions improved. Walt and Chris were still nowhere to be seen,

and I concluded that as conditions appeared to be similar to the day before, they had not been able to get away and had been drilled to the airport.

Anyway, I launched about 2.45pm, and right away realised that the air was dead, so headed out. I wasn't too worried, as Piute is a very reliable thermal source, and I expected to find one quickly.

By now I was losing height rapidly, and was regretting the extra weight of the oxygen tank. The foothills were very close and I was desperate, hanging on to every scrap of lift, when I saw a dust devil kick off to my right. Now a dust devil is inevitably a sign of good lift, and I was *in extremis*, but I'm not such a fool as to mess around with a young one so low down, so I managed to hang around till I couldn't see the dust anymore — then I gingerly headed over to where I saw it last.

Sure enough, I found increasing lift. It was very rough and scrappy and I struggled for 15 minutes till I was level with take off.

From there on it was relatively easy to get up to 14,000' — the point at which you are generally on your way XC.

continued over



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# 'Delirious with happiness'

This time though I turned directly back over launch, as I thought that this was the best way to find a well-developed thermal.

I was about an hour-and-a-quarter into the flight and had lost about 2,500' when out of the corner of my eye I saw a flash of white.

I started jumping around in my harness with excitement as I recognised the Astir about six miles away — circling over the valley to the north. I settled down and looked for lift as I'd never done before, as I knew that I couldn't get to them and had to wait for them to get to me.

Shortly after I found my thermal and circled in cracking lift. The Astir was closing, and eventually Walt and Chris joined me to share my thermal. I was almost delirious with happiness as I watched my friends below me, I don't think you can see a prettier sight than a sailplane sharing the same air as yourself at an incredible height over some of the most spectacular scenery in the world. Walt said later that he had been trying to outclimb me, but Chris said that he would have to wait till I had finished circling if he wanted to catch me, as he had no chance of out climbing a hang glider.

□ □ □

We were both at 18,500' and I was now on oxygen. I didn't have a mask, so I just stuck the tube in my mouth and this worked tolerably well. After I topped out, the Astir turned south to make a run at me. I kept flying straight and level, as I knew they'd pass close.

Glancing over my shoulder I could see them closing, then they were winging it over in front of me. I had a plan view for an instant before they shot sway, leaving me bucking in their wake. A minute later they passed within 30' of my wingtip, and I could see Chris taking photos. This was one of the wildest experiences of my life and I was so happy I could feel the tears in my eyes as I got dead emotional!

Incidentally, the Astir's oxygen ran out very early into the flight, and Chris learned about real anoxia, as he fell asleep from Boundary Peak to White Mountain. He said later that sitting supine had made it worse, as the G-loads forced blood from his head! Eventually the boys decided to head off south as I continued north. The last I saw of them was a twinkling around the vicinity of Black Mountain.

Fifteen minutes later I was over White Mountain, and had climbed to a height in excess of 19,000' (my Thommen packs in at 19 grand) I was in exactly the same position I had been in 24 hours earlier in the sailplane!

□ □ □

It was very cold — my water bottle had frozen, and had a 2" icicle hanging off it, also my moustache had a coating of ice as my breath froze on it. However, the rest of me was reasonably warm, and I could have gone for many hours without too much discomfort.

The dream I'd had those 24 hours previous had been realised, and I decided that I was not going to get any higher, as I could see the top of the inversion, so I started the 20 odd miles back to Bishop airport. The flight back was uneventful, and after joining the pattern I landed near the hang gliding centre into a northwesterly breeze. My witnesses to landing were my friends Billy True and Peter Leonard, who had arrived from L.A. half an hour earlier.

Ten minutes later we saw the Astir circling overhead, and shortly after that Walt and Chris touched down to an ecstatic welcome from myself. Total flight time was 2¾ hours.

As for the two aims I set myself, well I'd certainly been higher than I'd ever been before, I'd also got my best height gain — 13,500' by the barograph. I think that I may have an operating error in the instrument, but even allowing for that it's good for a British National record, because no Englishman, as far as I know, has ever got one better.

The new unratified WORLD height gain record went while I was in the Owens, and stands, I think at 13,400' (Ian Kibblewhite 13,699.8' July 1981 — Ed)



Mick at Gunter Launch

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- Above, left and right — air-to-air over the Sierras
- Above, right — the Sierras from 17,500'



# Just two flights in 74 hours

To conclude this story I would like to make a couple of observations on flying in the Owens Valley.

I have spent three years' holidaying in the valley, which amounts to 2½ months flying, NEARLY EVERY DAY. Total airtime around 74 hours. In that time I had two REAL moments, where I was scared poohless. One was a lump of turbulence which wiped out the barograph trace, the other was in a thunderstorm. Having said that, I'm sure any pilot flying in England with 74 hours under his belt will be able to furnish many more horror stories than that.



In fact, on my first flight in England after the Owens I was soaring Nont Sarah's in the Pennines — I spent 20 minutes scratching in a light southwesterley wind in the most evil conditions — I didn't do that at any time in

America. Maybe that is why I love the place, at least when you get turbulence it is short and sweet.

Anyway, the point is that I am sick of seeing articles printed in Wings! that make out that the Owens is a place for the macho pilot, all it does is create a sort of elite among our flying community, and if the truth were known, anyone who is a reasonable pilot and is not too "egoed out" to listen to advice, would be able to fly there safely.

There ARE some pilots who come to the Valley who will always screw it up, and it will be these people who will reinforce the theory that it is too dangerous to fly there — as a salve to their own shortcomings. On the flight I have just described I was at my best height/gain, and could see some berk who had force landed on White Mountain!

Good flying, I'll see you out there!



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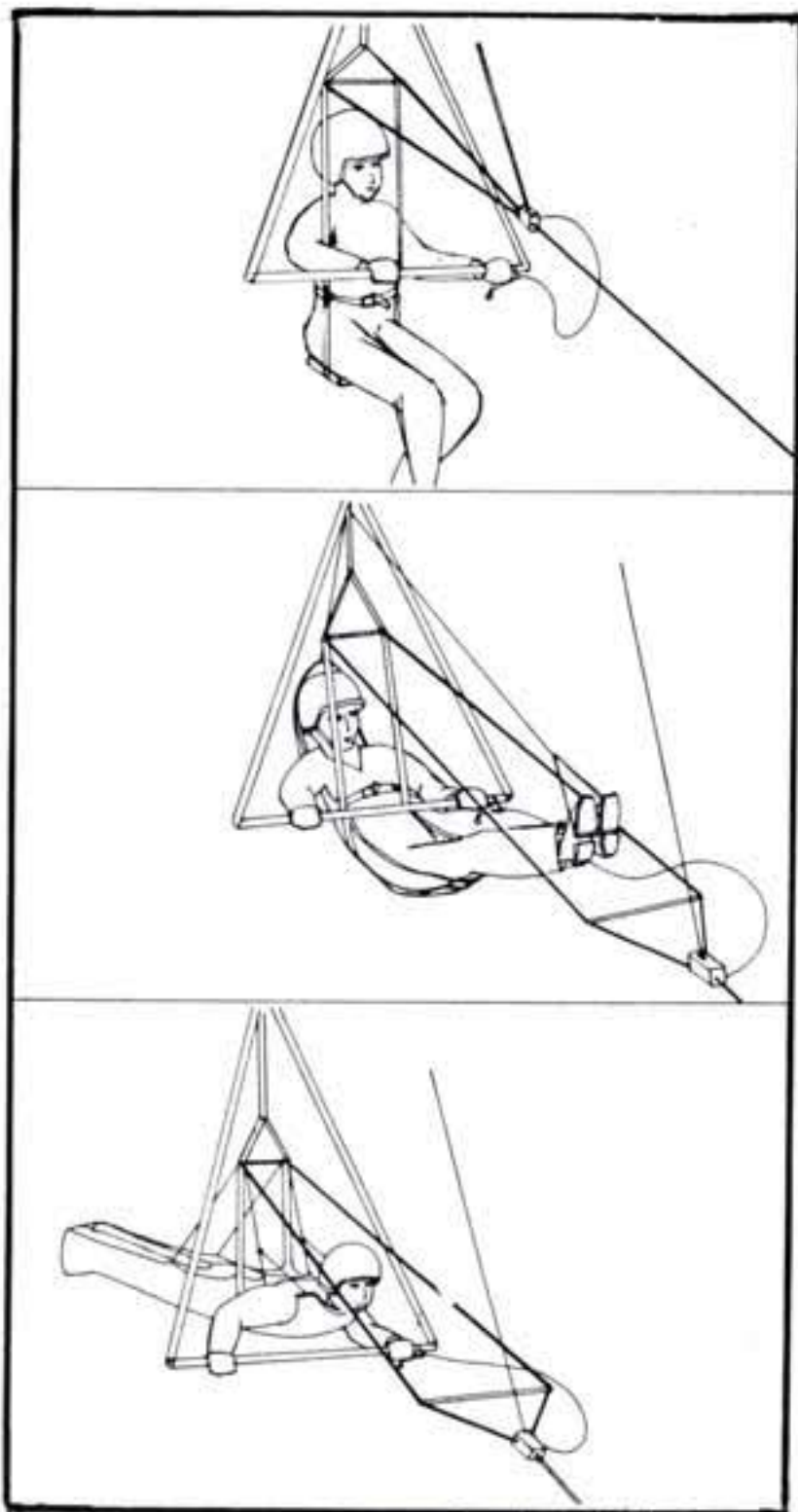
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The Brooks Bridle adapted for seated, supine or seated pilot

# The quest safe tow

Last month Wings! reported the BHGA decision to channel its efforts into towing development. Here BILL BROOKS describes the system developed with Howard Edwards at Dunstable.

The Brooks Bridle provides the answer to the problems of controlling the hang glider on the towline.

It provides:-

- COMPLETE control of pitch in towing, with similar control feel and bar position to normal flight — even at high climb rates and angles.
- HIGH degree of roll control on tow, that, INCREASES with line tension. You can go more than 45 degrees off line and get back on again at full tension, and launch safely 30 degrees off wind. In addition, the bridle tends to pull the pilot over to the correcting side of the control frame to give recovery. Control is again very similar to normal flight, and feels more positive.
- NO modifications are required to the glider, providing it can take the towing stress (which

is applied at the hang point.)

- ONLY one release catch is used — simple and reliable.
- THE system attaches to the harness and glider in about thirty minutes.
- THE bridle weighs 3lb complete with universal harness adaptor.

As you can imagine, we've been getting very excited about the system as it opens up towing for a much wider range of pilots, gliders, weather conditions, flying techniques...

\* since the glider feels normal and has normal control response under tow, towing need not be the realm of experts any longer. Anyone who can basically fly can now tow, with the possibility of training people ab initio by towing on flat land.

\* less critical control of the winch is required,

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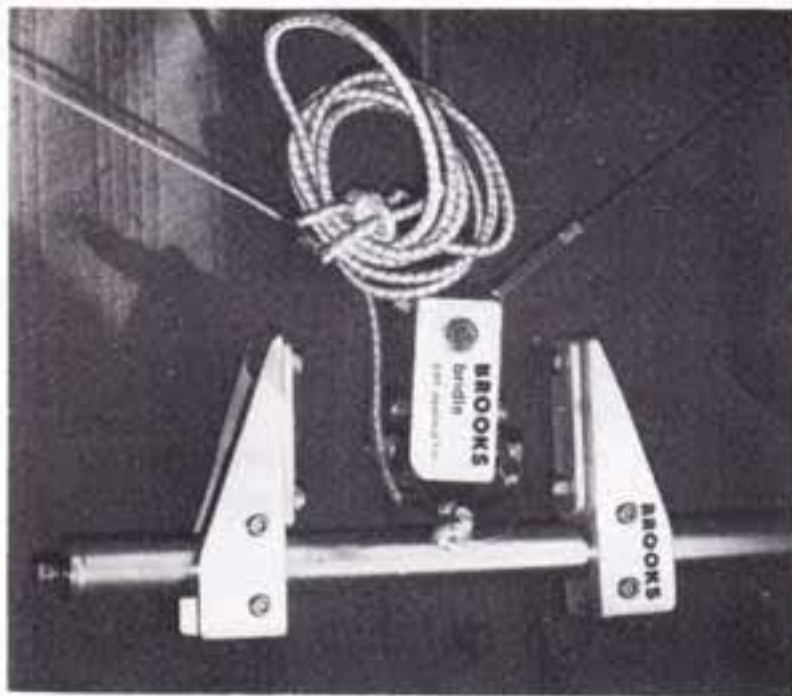
# for a system

as the pilot can now play much more of the time himself — he can vary the line tension and climb rate at will by pulling in or pushing out. This makes static winches much more feasible along with hand towing and vehicle towing (if bungee is used in the line)

\* a much wider range of weather conditions is acceptable as the pilot can relieve gust loads and has full roll control

\* new and exciting towing techniques are possible with the increased control, such as circle towing (as used by aeromodellers) to remain at the top of the line until a thermal arrives in which to release. This may also make it possible to get out much more line than can be accommodated in the launch field.

The triple action release catch has been designed with this in mind, with an auto back release at 30lb, and a half cover position front release at the same pressure.



The release catch, retraction bungee and universal harness adaptor bar

The invention is being patented by us, and the specification describes it more fully, but the basic idea is to tow from a position near the mass centre of the combined glider and pilot system from the pilots' harness.

A spacer bar is used to let the towline tension pass either side of the pilot's shoulders, allowing a high release angle — up to almost vertically above the winch.

When the towline is released, the bridle is retracted into the nose by a light bungee, so that the pilot is unaware of it for the glide and landing.

To date we have used the system on Vortexes (Vortices?) and also the Chargus Cyclone — the type of glider you wouldn't normally dream of towing in conditions from flat calm to gusty 30 mph, with great success. At present we are busy developing static winch systems to compliment the bridle.

We genuinely believe that this device could revolutionise towing and give hang gliding a healthy boost, with X-C competitions and clubs being organised almost anywhere. It could open up the sport to many more people, and more sponsorship too.

We have been producing 50 tow bridles. They fit straight onto a Dunstable harness or other harness with a spacer bar, on to any other harness using the adaptor shown in the photo, which clamps onto the main harness webbing straps. With adaptor and all the other bits including operating lever and the three-action catch it should retail for around £70.

If you think all these claims are extravagant, or even if you're just plain interested, feel free to come down and try it out.

Our thanks must go to the Thames Valley towing team with whom we went towing last summer. Their discipline of controlling the tow is very good, and obviously although the towing bridle makes things a lot simpler and safer, it's no excuse for letting those standards drop.

## Please note

ANDY Brough has carried out considerable research into safe tow launching and has submitted a detailed report to Council member Clive Smith, the association's Chief Airworthiness and Technical Officer. He has consulted Bill Brooks and Howard Edwards about their developments.

Training aspects will be vetted by Training Officer Bob Harrison.

A BHGA Tow Launch Operations Manual will be produced. Once in print details of the safest towing methods will be available to all.

PATIENCE, the Manual will

be advertised in Wings! as soon as it is published. As usual a few people, including hard-pressed volunteers, have a lot of work to complete before publication is possible.

The association's Public Liability insurance policy has been negotiated so that it will be possible to cover APPROVED tow launched hang gliding in the U.K. To obtain cover, clubs will have to submit details of their equipment, operating procedures etc.

Meanwhile, if you are relatively new to the sport don't be tempted to experiment on your own.

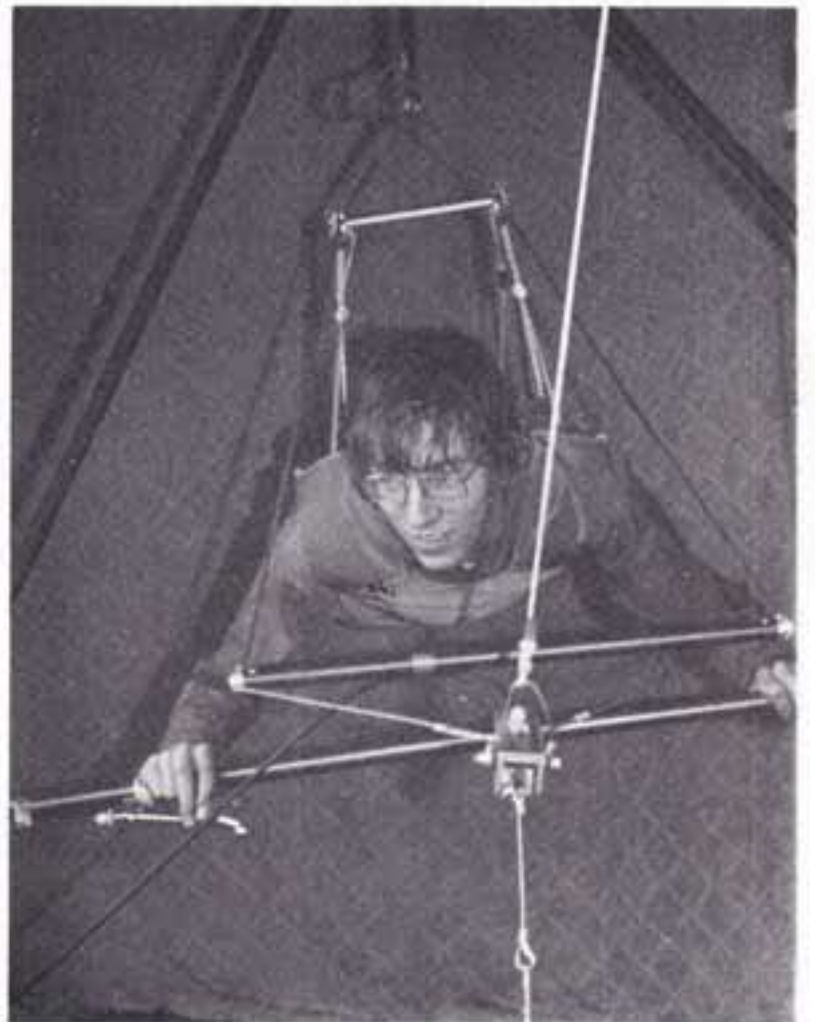
The new methods will give us safe towing. The hit-and-miss methods of the early days resulted in the deaths of dozens of pilots throughout the world.

Don't let impatience lead you to re-stage, in the name of experimentation, "lockout" and "airframe failure" accidents, usually fatal, that occurred so frequently in the past. If you MUST talk to someone contact Andy Brough on Oxford (0865) 40292 or Howard Edwards and Bill Brooks on Winslow (029 671) 2086.

CHRIS CORSTON  
SECRETARY  
BHGA



Take-off



On tow



After release — the bridle is out of the way at top of picture



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# Chasing a dream that the Wright brothers killed

TONY FUELL talks to Marilys Wills, author of *Manbirds* and mother of modern hang gliding's pioneering Wills brothers.

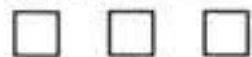
**THE Wills family has been involved in hang gliding from its earliest beginnings.**

There were three brothers: Bob, Chris and Eric. Between 1972 and 1975, they pushed back the frontiers of the sport to such an extent that it is difficult for people coming in now to realise just how far they took glider design, and their own individual flying skills.

The Christmas issue documented what a profound effect Bob's flying, and the Swallow-tail design had on British hang gliding following their appearance at Mere.

For a time their company, Wills Wings, had a very substantial presence in the British market, their best seller being the Wills SST, a glider which set entirely new standards of performance and handling in its day. Unfortunately, Wills Wings had problems with their UK importer, and following Bob's death in 1977, the company withdrew almost entirely from the UK scene.

That's a shame, really, because they have survived a number of organisational traumas, and their gliders are very popular in the US.



Everyone who has met them will assert that the Willses are a remarkable family — their range of achievements as individuals is truly amazing. There isn't space here to list anything... suffice it to say that you can only account for their individual achievements by looking at the home background. It was with great interest that I went along to the BBC Radio London studios recently to meet the matriarch of the family, Maralys Wills, in London on a personal visit, and also to promote her new book *Manbirds*, which deals with the history of the sport from the roots up.

I had no idea what to expect. California is full of extreme types, and here I was, going to meet a woman who has a career as an author in her own right; married to a successful attorney, who herself took on the job of managing the Will Wings factory when her son was killed and still retained sufficient objectivity about the sport to produce a very fine book about it. To be frank, I had

---

• Marilys Wills  
pictured, right, by  
Bettina Gray

---



expected a dragon: one of these formidable American matrons, all blue rinse and Edna Everedge spectacles, with a voice that could shatter glass at fifty yards. Or something like that.

Well, in reality, she IS formidable, but not in any intimidating way. She's tall, softly spoken, and totally charming. Even her Radio London interviewer, Tony Blackburn confessed himself captivated — and he's more resistant to synthetic charm than anybody.

Partly, of course, it's what she has to say — she's a genuinely interesting talker, and her subject matter is fascinating for anyone who's even remotely interested in hang gliding.

She dealt with all the radio questions with expertise — including a couple of fairly low blows... "How do you feel about hang gliding, now you've lost two sons to it?" ...and things like that. But I suppose, they were the questions anyone hearing her story would ask themselves, and promoting a book about the sport under those circumstances invites them.



She's a rare person. The question didn't throw her, she merely said quite directly that her sons had loved hang gliding, that Bob in particular had made it his whole existence, that he had brought honour and recognition to his family by participating in it, and if his life and death were to mean anything at all, she couldn't turn away from something that had meant so much to them.

And, she went on to say, the sport is beautiful in its own right, and less dangerous now than it used to be, so why concentrate on the bad parts, when the good parts so outweigh them?

After the interview for Radio London was over, I asked if I could do an interview for *Wings!* What follows are the edited highlights of a conversation which ranged very widely; I hope you'll find it interesting.

**TF. Tell me what you had in mind when you started out to write *Manbirds*...**

*MW. I'm interested in people, their goals, their desires, their dreams and I wanted to see how one group of men achieved finally what they wanted to do...to fly.*

**TF. And how they interacted as they were doing so?**

*MW. Yes, and how the movement started in some places, quite unknown to others in different areas, and it took different forms. Hang gliding was a ski launch endeavour in some areas, and in some places it was a water-tow, others it was "run down the beach into the water", sort of thing, then it kind of all came together by little bits and pieces. You can't say that this man did it, or that man did it, different people contributed small parts. The first person to really fly was Otto Lilienthal. And so, I start the book back about that time, and carry on with all the various forms of hang gliding...trying to show how gliding stopped dead, killed by the Wright brothers...they stopped progress for almost fifty years. After them, no-one cared anymore about doing it in a natural way; they were only interested in machines. What I was trying to show in the book was how the idea of free flight came to life again, who brought it to life, the excitement it generated...it generated tremendous excitement in the early years, just like the Wright brothers did.*

**TF So who were the early pioneers of hang gliding?**

*MW In our country, at least about the only person I was able to discover that did any hang gliding was Volmer Jensen, who's still alive. He's 72 or 73 now...but he was the only one who did it at all, for a very long time, and you know it was the very nature of the man that prevented his ideas from spreading. Volmer Jensen was a shy, retiring non-showoff type person, who didn't care*

*continued...*



whether anybody saw him or not, or whether his ideas caught on or not, and who did his own thing in his own way.

**TF** The only person in England who's had a lot to do with Volmer Jensen is Dave Cook...weren't Jensen's designs too demanding — heavy and cumbersome, to be of much interest to the new flyers?

**MW** Right, exactly...we used to go to these hang gliding meetings where he would show his movies...the movies would consist of 1½ hours of VJ pushing the machine up the hill, and 1½ minutes of him flying down! It always took three or four men to push it up, and he'd fly down alone...it was a bit impractical. Finally we reached the point where we had a machine that ONE person could take to the top and fly, and each man could have his own glider, and so that's when it really took off. But even so, it took a while...it took the invention of the "trapeze" control bar to make it feasible. This is attributed to Bill Bennett and John Dickenson, who were flying towed behind a boat. These things were unmanageable until they developed the control frame that we know now...before that, people used these hang-cages which didn't work very well.

There then followed a lot of discussion about the USHGA, and internal politics...not covered by Maralys's book, but about which she proved to be very well informed...then we got on to matters nearer home...

**TF** Can you tell me a bit about the Wills Wing company?

**MW** Well, ironically, now that I don't have anything to do with it, it's booming! I kept it alive, almost single handedly for about a year after my son died, nobody believed it would live, so our sales fell, we were really struggling...it took quite a lot of determination to keep that thing going...I had to convince our suppliers that we wouldn't let them down, that I would pay them — eventually — there was a lot of cajoling, and sheer will...most people would've shut it down.

**TF** So you're not involved with it at all now?

**MW** No. My son, Chris still has a portion of it, but I don't own anything now. It's one of the biggest hang glider manufacturers going, incidentally.

**TF** So who IS running Wills Wing now?

**MW** Four people: Rob Kells Mike Meir, Mike's wife-to-be, Linda, and Steve Pearson. They're all very young, very confident, smart, very intelligent... they've all done a great job.

**TF** Do they have most of their market in California?

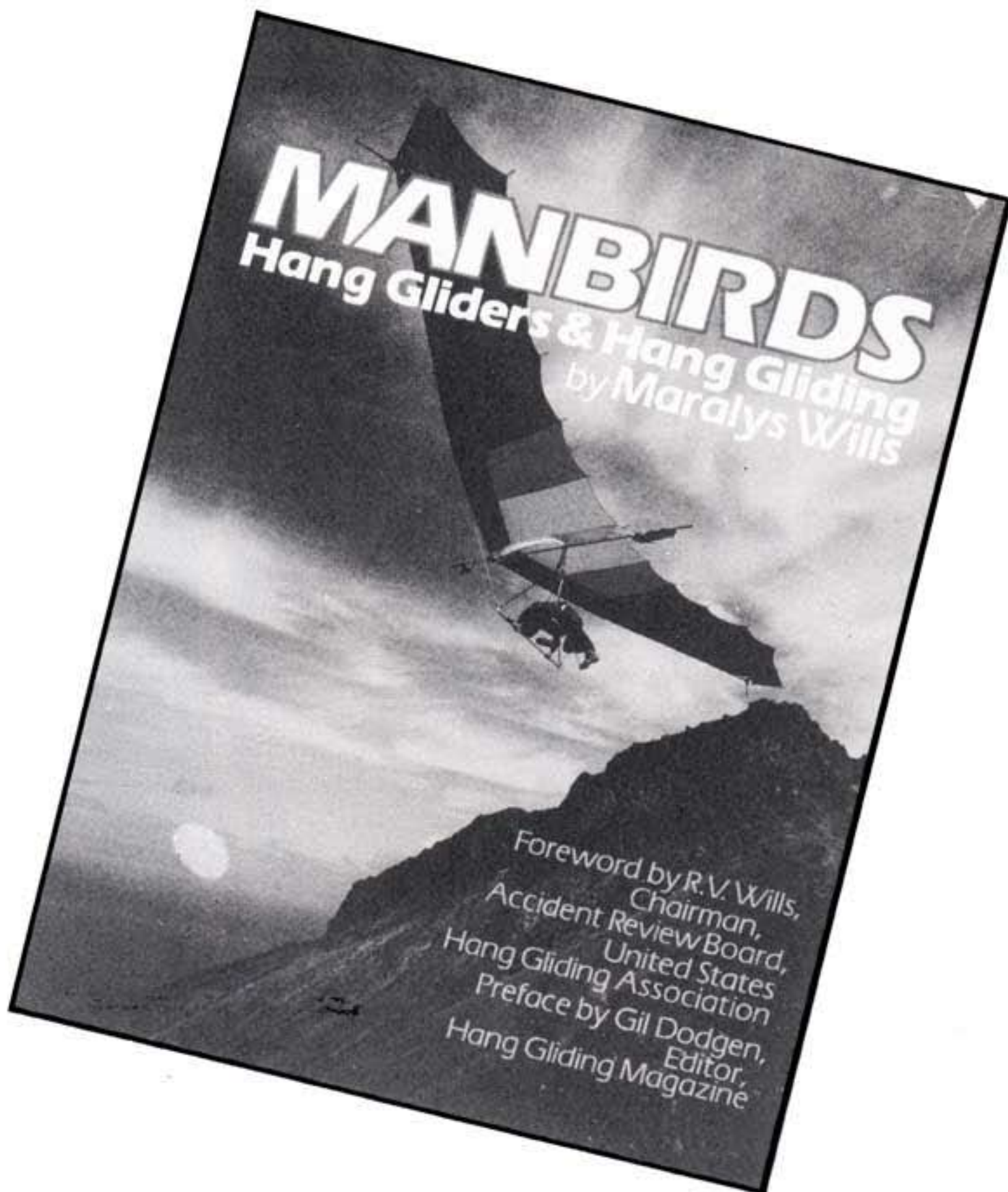
**MW** No, I'd say it's really worldwide...we have a big market in Norway, we were getting into Japan when I left. Norway's probably our biggest market outside the USA. But we sell all over the States, as much in the East as in the West.

**TF** What's the Southern Californian hang gliding scene like, these days?

**MW** I think it's really reached saturation point. The people who are in it most deeply think that most of the people who are wanting to do it, ARE doing it...about the same number drop out as enter it each year, it's not going to grow beyond a certain point, any more than scuba diving, parachuting or any of those type of sports. There are just a limited number of people who want to do it. But if you love flying, you MUST fly... people get very upset if they haven't flown for a week or so, it's very intense, in that way. But I think we're getting a more mature lot, in hang gliding these days.

**TF** It's probably the same people...they're just getting a bit older, that's all!

**MW** ... Yes, you're probably right! They wanted me to write this book originally for the complete novice, the man who's never flown in his life before, and I thought that was baloney...most of the people who really have an interest in hang gliding are in it... somewhere in it...why should I go out and try to write for that very small number of people who have never done it and who have no idea about it...I'm not going to do it,



I'm going to write for the people who already love it and who want to know more about it. So I produced a rather different book from what my editor had in mind, and I'm glad I did. Part of the book, incidentally IS a how-to section...that's been done by my son, Chris. But you can't learn hang gliding from a book, it was intended as a summation of all of the things that have been done in the sport. I'm very pleased that the hang gliding community has (so far) given me very good reviews.

## MANBIRDS: The Book

UK Publishers: Prentice/Hall International  
66 Wood End Lane  
Hemel Hempstead,  
Herts HP2 4RG  
Price £13.45, cloth bound.

SO what, after all that, is the book actually about? As you'll see at a glance, it is pretty expensive over here — about double the price your hang gliding counterpart would pay in the States — and if I were contemplating blowing the cost of three LPs, or a trip to a good flying site on a book, I'd need to be assured that I was getting good value for money.

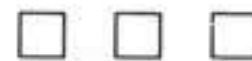


On this point I find myself completely lost. For sure, the book is beautifully produced. It contains a wealth of material you'd not find anywhere else — including some hitherto-unpublished photographs from the Wills family collection, which will be of considerable interest to historians of the sport.

The colour pictures are really superb. Personally, I thoroughly enjoyed reading it, but then, I have no shame in saying that I got

it for nothing, and it's easy to enjoy books under those circumstances! Whether it would have been the same if I'd shelled out the 13 quid for it, I don't know...

So perhaps I'd better just confine myself to describing what's in it, and leave questions of relative value to you, the potential readers. One thing I would say is that if you aspire to any sort of a hang gliding library, you really should buy it. Magazines fade, or get lost, but books go on forever. If you were around in the early days, the stories in Manbirds will fire your memory, and recall incidents long past. Magnificent stuff, which you'll really want to remember.



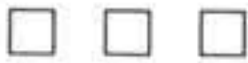
Actually, between the expensively-produced covers are three books, of which only the first will be of much interest to the serious hang glider pilot. Book One; "The Mad, Magical, Many-sided World of Hang Gliding" it is called (well, it IS American!) and this is Maralys Wills at her very best. Book Two is a competently-done technical introduction to the sport — written by Chris Willis. This is OK — as you'd expect — although it suffers over here from being not geared to any particular instructional programme.

I didn't detect anything I would take exception to, but just found this bit irrelevant to me. Obviously, a newcomer who bought the book would find it more interesting, although they'd have to adapt to the differences in terminology between the US and the UK.

Book Three — "The Hang Glider Pilot's Baedeker" is a compilation of lists, which you'll find interesting or not depending on your own need for the information. I thought this was mostly a waste of space — I mean you've really got to be keen to care about who came third in the Guatemalan Hang Gliding Championship



of 1979 (Fernando Linares); and anyone who depends on the Sites List to plan their round-the-world holiday is in for a bit of a disappointment...



But the main reason for the whole thing is Book One. Maralys has done a terrific job on this, and it's well worth a read. It starts with the history of the sport; the early heroes — Icarus, Lilienthal, Percy, Cayley, etc. Competently researched, and interesting if you haven't heard it all before, which anyone who's read a book on hang gliding before will have done — but with some fascinating (and new, to me at least) material about California's early pioneer John Montgomery.

Apparently, Jack Lambie tried to replicate some of the feats Montgomery is reported to have achieved in the San Diego area in the early 1900s — with complete lack of success. The gliders just didn't fly, couldn't be made to fly, even with modern aerodynamic knowledge, but Lambie didn't fancy making a big song and dance about the fact, and let Montgomery's reputation rest in peace.

But the real meat of the whole book comes in Maralys's treatment of the years between 1961 and 1977, when hang gliding as we know and love it got started. Of particular interest is her detailed account of the first Lilienthal meet, May 23, 1971 — generally accepted as the birth of the modern era of the sport.

She knows all the participants, and most of them are still alive (yes, really!).

Going on from there, she covers Bill Bennett, Willi Muller, Volmer Jensen, all the big names. Special mention — not surprisingly, since this is a personal history as well — is given to the Wills brothers, and those associated with

## The Wills family

February '72

Chris Wills and Chris Price see article about hang gliding and measure up the photographs to build a replica using bamboo spars, polythene sheets and duct tape.

July '72

Bob flies from 6000' Saddleback Mt.

August '72

Bob/Chris world first rogallo tandem flight.

Sept. '73

Bob gets world duration record, Hawaii (5½ hrs) Chris wins first USHGA Championships

Early '74

Wills Wing launched; develops Swallowtail design.

March '74

Eric Wills killed in a 360° turn attempt. Bob senior forms USHGA Accident Review Board.

Early '75

Wills brothers, and others to Greece for filming of Skyriders film for 20th Century Fox.

April '77 approx

Bob Wills killed, filming a commercial at Escape Country, California — rotoed into the ground by a helicopter's wake; the subsequent court case failed to establish negligence on the part of the chopper pilot.

them in those heady years. There's an account of the filming of the Skyriders film in Greece — adapted from articles in Hang Gliding magazine — which just has to be the last word in deadpan humour. And interviews with other contemporary pilots — Dean Tanji, and Donnita Kilbourne, and designers — Paul Macready and Francis Rogallo himself.



This is the bit that's really worth the money. Had I been publishing the book, I think I'd have gone a bit easier on the production

standards, cut out some of the beginner's bit, lost the Baedeker, and tried to bring this section out at a price the average guy could afford.

There is a genuine interest here — the question has to be whether the price for the whole package is worth paying to get these nuggets of pure gold.

The last few minutes of my meeting with Maralys Wills were devoted to a discussion of her future plans, which apparently include a book about Bob Wills. Whatever happens, it seems as if she will be maintaining an interest in this sport of ours, and for me, that's the best news of all.

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## Miscellaneous

### BOOKS

Hang Gliding and Power. See Dec. and Jan. Wings! or ask for list  
**ROBIN LAIDLAW — 105 Clermiston Rd., Edinburgh.**  
031-334-6356 - evenings.



# CLASSIFIED\*\*\*CLASSIFIED\*\*\*CL



**ADVERTISING rates on the classified pages are as follows:**

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All small ads should be sent to Sylvia Howard, Commercial Editor Wings!, 4 Somerwood, Rodington, near Shrewsbury, Salop.

For your own safety, if you are purchasing a secondhand glider, 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.

**Skyhook CUTLASS.** Large, rainbow sail, low airtime, excellent condition. £500. 051 648 1306 any time.

**LIGHTNING** (small.) Excellent condition. Kept in garage. £600 ono. Phone John Moss 01 393 3702 for more details.

**LIGHTNING 195.** Red/blue/gold sail and fin. Good condition. £575. Must sell. New glider on order. Tel. 01684 4772 (Croydon.)

**Large COHEN WEDGETAIL.** High flying intermediate glider for heavy (12 stone +) P1 or better. Always top of the stack. Radical colour scheme. First to fly will buy. £275. Ring Richard 01 680 9582, ext. 47, daytime or 01 660 2854 evenings.

**WASP LASER 190.** Pristine condition. Breaks down to 10ft. This supership must be seen. Complete with harness and helmet - give away price of £175. Tel: 01 658 2541.

**ATLAS.** Very little used. £320. John Evans, 051 336 2681 Cheshire.

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**FIREBIRD S.** Little flown, excellent condition, plus seated harness. Ideal for beginner - intermediate. £175 ono. Tel. Chieveley 594 (Junction 13, M4.)

**CHEROKEE II.** Medium, preformed battens, red and white (pilot over weight.) Must sell. £400. 0782 78 2262.

**SOLAR STORM** (large.) Ideal pilot one. Sail - dark red, orange, yellow, gold, in very good condition, delivery can be arranged. Tel Medway (0634) 576152.

**Solar TYPHOON** medium, good condition. Blue sail, red tips. Excellent performer. £610 ono. Wokingham (0734) 792423 or contact Solar Wings Also **MOONRAKER 78** (Birdman.) flies well but requires competent pilot. Bargain £120 ono.

**VORTEX 120.** Red, yellow. Excellent condition. Never pranged, with prone seated harness. Stored in York. £320. Telephone Nottingham 287927.

**DEMON 175.** Good condition, dark blue L/E, light blue sail with red tips. Bank Manager forces sale. £625 ono. Telephone Dave, 061 223 7075 day, 0706 356019 night.

**Avon SWIFT.** Good solid soarable trainer, with seated harness. £45. Also seated harness, £10. Phone Rotherham 67798.

**SUPER SCORPION C.** New rigging throughout - spare uprights - spare half booms. Beautiful white sail. £380. Phone 01 946 4645 evenings.

**SIMON MURPHY** is sole agent in the South West for Airwave's Magic **COMET**, the fantastic **SKYMASTER** parachute system, Graham Slater's **TRI-PACER** trikes and the range of altimeters from **DIPLEX**.

I always have a stock of used gliders and equipment taken in part exchange:- Med Typhoon £670 Cyclone 165 Mk II £450. Cherokee £325. Atlas (small) £550. Harness chutes from £100.

**SIMON MURPHY, TURF HOUSE, LUPPIT HONITON, DEVON. LUPPIT 685.**

**SIGMA 12M.** Handles and flies well, short breakdown, white with orange tips. Excellent condition. £250 ono. Tel. Winchester 68584.

**DEMONstration 175.** Unscratched, as new, immaculate, little airtime, etc. etc., Treat yourself, contact **AIRSPORTS** Hang Gliding Centre 0970 84 289. Also **Skyhook SAFARI**, ideal intermediate glider. £275.

**Superb CYCLONE 165 Mk2**, one year old, several cross-countries, asymmetric colours. £425 ono. **VORTEX 120P** power specification - bolt on your trike! £400 ono. Luppitt (Devon) 685.

**MIDAS SUPER E**, exceptionally good condition, classic. Midas penetration and soaring, includes prone harness. Must sell to afford Wind-surfer. £200. Aylesbury 27648.

**HONEST TJ BARGAINS** - Typhoons, choice of two (mediums.) £550, £600. Tripacer 250 cc, v.g.c. £790. **Moonraker 78**, £175. Standard £50. Trevor Birkbeck, Ripon 5540.

**N.G.S. CLEARANCE.** Typhoon, excellent condition, £650. **Typhoon**, excellent condition, £650. **Typhoon**, medium, new, £800. **Typhoon**, large, new, £800. 061 973 4085.

## Power



**SOLAR TYPHOON/250cc TRIKE.** Airframe approx. 20 hrs. Suzuki TS250 engine 10 hrs. Winter A.S.I. Thommen altimeter. Colver vario and charger. Rapid deployment chute. Numerous extras. £1450 complete or will split if necessary. Ring 0706 227797.

**Medium SEALANDER**, multi colours, including trike, has flown but requires engine modifications. Will split. £900. Ring Cowes 291652.

**HIWAY SKYTRIKE 160/Hilander** med combination. Extras. Excellent condition. £1,275 ono. Tel: 061 962 8590.

**Brand new CHARGUS** two men trike 430 cc. Was going for export. £2600 (check new price) Complete with glider. J. Hayler, tel: Tonbridge 357413.

**A SYNDICATE** in the Colchester area has been formed to purchase and fly a **DEMON** skytrike. One ¼ share available. Contact Brian Morgan, Bridgetfoot Farm, Kelvedon, Essex. Daytime telephone 0376 70535.

**The B.M.A.A.** is the Association for all seriously minded **MICROLIGHT AVIATORS**. Our magazine **FLIGHT LINE** is full of the latest information. For further details, please send s.a.e. to Secretary, B.M.A.A., 20 Church Hill, Ironbridge, Telford, Shropshire.

## Schools

**SUSSEX COLLEGE OF HANG GLIDING**, 188 Queens Rd., Brighton Teaching. Prone and top landing. Power too (on proper airfields.) Spares, repairs and sales. F.L.A.C. Hiway, Lightning, Sigma 12 metres, £350. Lightweight Mini Floater, £575. GYR Marauder. Super Scorps, etc. wanted part ex. Brighton 609925/24151 ext. 171.

**Bailey's Yorkshire Hang Gliding and Microlight Centre**  
Hang gliding courses - Dual trike microlight courses - Thermalling and cross-country courses in beautiful Yorkshire  
**Details - 2 Denton Avenue, Leeds 8. Tel. 662518**

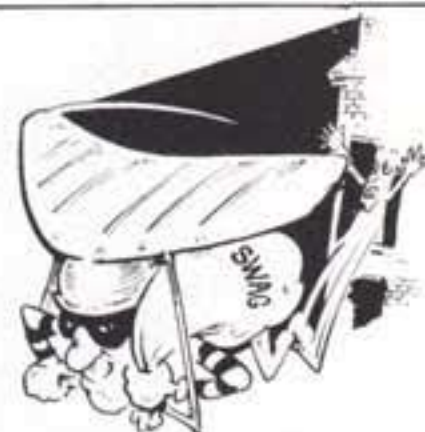
## Sits vac.

The **FREE FLIGHT HANG GLIDING** and Microlight Aircraft School require Instructors, Senior Instructors and Trainees. Top rates paid and good flying. Contact Phil Cutting, Biggin Hill, 72026 eves.

## Sits wanted

**KEEN AND COMPETENT** flier, practical and conscientious, still seeks opportunity to work with hang gliders or microlights. Offers - David Gray, 1, Cobhay Farm Cottages, Milverton, Somst. TA4 1NN. Tel: Milverton 400344.

## Wanted



**SOLAR STORM** Medium. Must be in good condition. Tel: Roy Avis, 01 852 7312.

**WANTED.** 24' or 26' **PARACHUTE** - with or without harness. No reasonable price refused. Phone Nigel Sumpter (061) 445 4540 and (061) 224 3447 and sell it quick.

## Lost & found



**FOUND** at Parlick Fell, February 27. Smith's altimeter. Ring Andy Berry, 0772-862104 (evenings).

**Lost something? Found some carelessly discarded equipment? Advertise in Wings!** (finder to pay on claiming).

## Ads Index

Index of display ads not in the classified section.

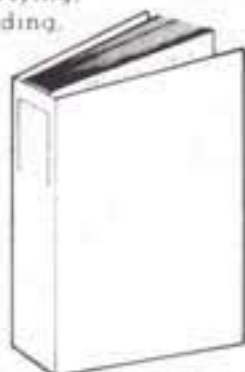
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## Miscellaneous

### GET ORGANISED!

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## Glider market

**DEMON**, medium; red and white; clean sail; two spare uprights; £625. Phone Crawley 51576.

**SAFARI SKYHOOK.** Low hours. Never bent. Preformed battens, triple deflexors. Blue and white. Suit beginner/intermediate. £250 ono. Oakham 56659.

**SIGMA 12** metre. Suit large p1. Any test. £200 about. Merseyside. Bill 051 526 1740.

**Medium CHEROKEE.** Soars as well as a double surface machine, and is much easier to handle. £375. Tel. Adam Jefferson on Parkstone 733114 ext. 57, during weekday office hours.

**Well maintained small CYCLONE II.** Extremely good sink rate, excellent performance, light positive handling and only £325 - to include some spares. Abingdon 23528.

**FLEXIFORM VECTOR** - flown only a few times, never crashed, includes seated & prone harnesses. Any offer considered. Phone Warrington (0925) 813 863 evenings & weekends.

**CHARGUS VEGA II.** Ideal P1 kite. V.g.c. With seated harness. £275. Also prone harness, new £50. Ware 93 3778.

**COMET 165** (medium.) Excellent condition. Test fly in Southern England or Wales. £650 ono. Phone Richard Newton, Southampton (0703) 584774 (work) 559087 (home.)

**DEMON 195** (large.) Nice condition. Excellent XC or power machine. Patriotic colours. Tel 0772 725943 work; 0772 311288 evenings.

**ULTRA SPORTS.** Agents in the South East for Hiway, Solar Wings, Airwave and Moyes. Contact Michel Carnet or John Barratt for prices & demonstrations. Ultra Sports Ltd., 12a Upper Hamilton Road, Brighton. Tel: Poynings 526.

**MOYES MAXI III.** 220 sq.ft. Blue dacron sail. Towing frame. Must sell. £250. Phone Dave, Oxford 47447.

**ATLAS 16.** Good condition. Light blue and with black double surface. Phone Dave on Berkhamsted 74868 to discuss test flight. £475 ono.

**MIDAS SUPER E.** Good condition. Suitable for 11½ st P1. £200 including spare uprights. Allan Smith, Weymouth 75210 evenings.

**MIDAS SUPER E.** Immaculate condition. Red/white sail. £150. **GRYPHON**, very good condition, £175. Bradford on Avon, Wilts. 5231.

**Sigma FLOATER 195**, ideal high performances. P1 intermediate glider, prone and seated rigging wires also seated harness. £370 ono. Tel. E. Lloyd, Caterham 44899.

**ULTRA SPORTS.** This month's second hand glider bargains: Large **Comet** (brand new.) £875. **Super Scorp C**, £400. **Super Scorp C**, £450. **Super Scorp Mk2**, £550. **Moyes Mega 2**, £650, v.g.c. **Demon**, £880 (used one week.) **Large Lightning**, £600. **Vortex**, £350. 12a Upper Hamilton Road, Brighton.



# A winning wordsmith

Last month's Wings featured the 1981 British Gray Prize-winning hang gliding article. The winner of the American Gray Prize was Wallace White who wrote an excellent feature of the 1980 American Cup published in the New Yorker magazine. This fine piece ran to several thousand words and many pages of the quality magazine. What follows is a brief extract, with thanks to New Yorker magazine.

I HAD come to the Chattanooga area after watching a fair amount of hang gliding in the Northeast. Several of the pilots who fly the area around Ellenville, New York—one of the better Eastern hang-gliding sites—had told me that for a good all-around view of the sport, I really ought to see the American Cup. A number of competitive meets have come into existence over the past few years, including the annual United States National Hang Gliding Championships, the annual European Hang Gliding Championships, and the bien-

• Pictured L-R are Wallace White, Bettina Gray and Keith Nicholls, USHGA competitions chairman. Photo, Hoyt Spleman, New Yorker magazine.



nial World Hang Gliding Championships. The American Cup, the pilots in the Northeast had told me, not only draws the world's best fliers but usually ends up being one of hang gliding's more animated events.

Early on the Thursday morning

after I had arrived in East Ridge, a man named Tracy Knauss, a thirty-year-old native of Texas, picked me up in his car at my motel and drove me to Raccoon Mountain, a few miles west of the city, where that day's flying was to take place. Knauss is the publisher of *Glider Rider*, a monthly, which he began publishing in Chattanooga in 1976, and which has become the sport's largest periodical. As we drove along a winding road up the mountain, he explained that the American Cup had come into being as the result of a bet between him and Brian Milton, who was the editor of the monthly magazine *Wings!*—the official publication of the British Hang Gliding Association, which is a counterpart of the U.S.H.G.A.

"Brian and I were talking long-distance, about three years ago," Knauss said. "I claimed that American pilots were superior to British pilots, and he claimed the opposite. I bet him five dollars that he was wrong, and he took the bet. But how were we going to prove anything? The answer was the American Cup, which we first staged here in 1978. It's run along principles similar to those that are used in the America's Cup of yacht racing. Each year, we challenge other nations to take the Cup away from us, if they can. Of course, last year and the year before, that's just what happened. The British won both times, and last year the Americans almost didn't even make second place—they tied for it with Canada. We started by having four competing countries, but now we've expanded to six. It would be difficult to go beyond that, because you just can't accommodate many more gliders in the air at one time."

## What happened...

continued from page 19

Len Gabriels adds:

Editors and others should refrain from comment other than a report of the facts and be very certain first as to what the facts are. It isn't very nice to have to put up with headlines such as "the parachute worked at least" or with footnotes such as that at the end of the January article in which it said "the initial dive lasted far longer than any witnesses remembered — it SHOULD HAVE PULLED OUT."

Most readers would have taken that to mean a definite dive of at least a few seconds duration. Certainly it does not conjure up the picture shown by the film. It seems that the witnesses to the accident had a better memory than whoever wrote that.

The film is still in existence and can be checked independently.

Regarding the suggestion that manufacturers should do drop tests on trikes — we would love to. We would also love to put them on load testing rigs and, dare I say it, the BHGA test rig. In fact we did the first hang glider drop tests in this country, the first dynamic load tests and were promised a very early go on the BHGA test rig (whatever happened to that?). However, there doesn't seem to be any good way of doing drop tests in this country as they require at least 150 ft. of height, and still air, neither of which seem to be available when required.

In any case, a straight drop test may give different results than were obtained by the "drop test" which started John Clarke's accident.

*The above is my report of the John Clarke accident which involved a fair amount of time and careful analysis and measurement of the film. It is, as far as facts are concerned, as accurate as possible.*

*The essential thing is that the wing never reached flying speed before it went under and only one conclusion can be drawn from that — that the wing could not recover by any feature of its design until it had first turned upside down.*

*After that point was reached, and airspeed had built up it is possible that recovery could have started by doing a letter "S" in the air, but the weight of the trike, laid back to the rear of the wing, and with the front stay pulling against the control bar, would prevent that happening. (Probably a good thing because at that low height it could have still been coming out as it hit the ground at a very much higher speed).*

*I don't want to "play up" this shortcoming of trikes, which is what I think it is, i.e. the low pitch damping (obviously a substantial tailplane would have killed the manoeuvre right at the start) but have to reply to the inference that the Sabre is unstable or divergent. In fact, in normal hang gliding use it is very pitch positive right up to "out of control" vertical dives in turbulence, as a few fliers already know.*

*On a trike it feels very pitch positive.*

*I still love trikes and this sort of thing is most unlikely to happen (obviously I can not say impossible) with normal use even in turbulent weather.*



# PRIZE CROSSStubeWORD

Hot gossip from...

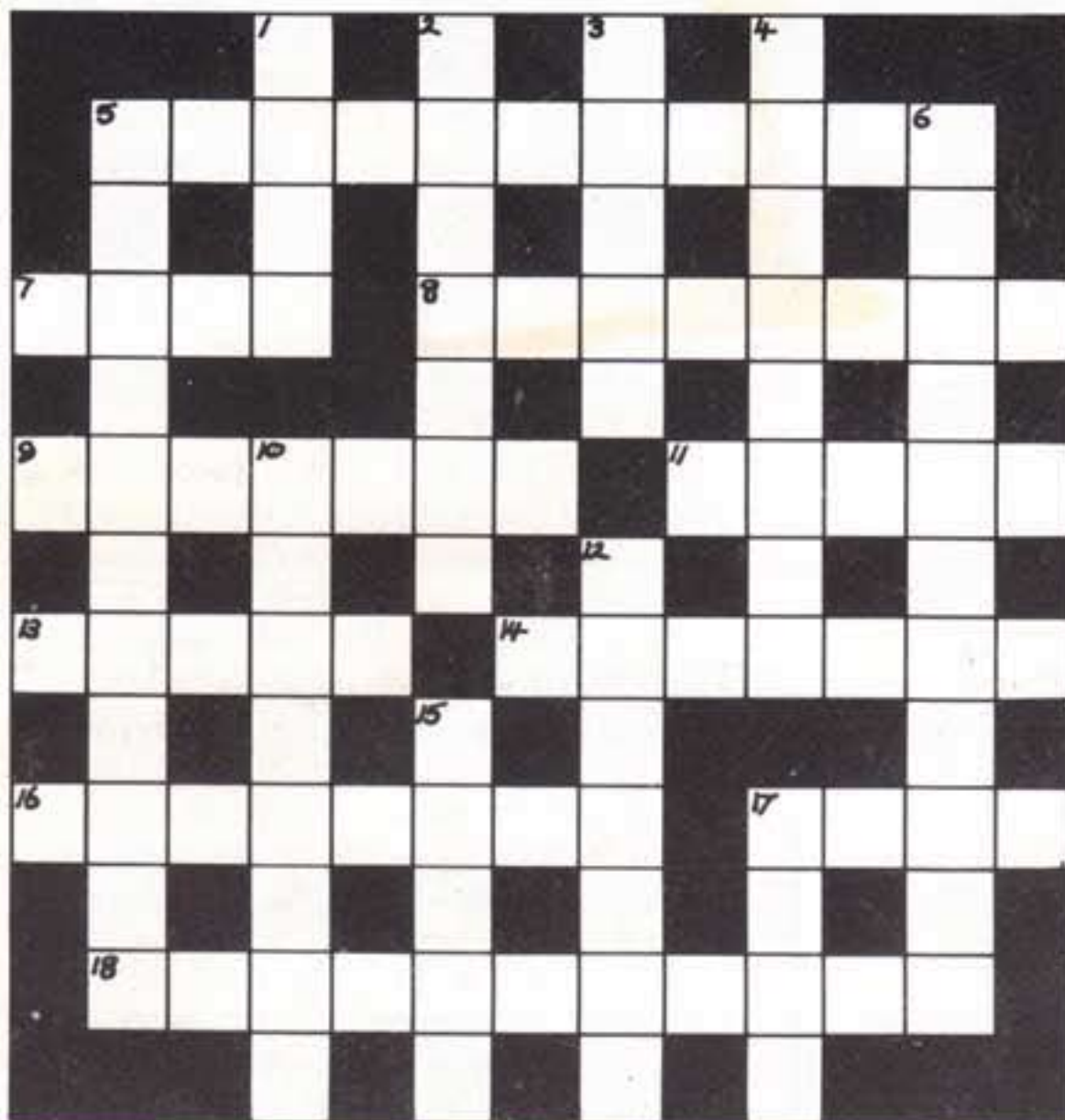


ANOTHER mixed hang gliding/general knowledge puzzle this month. As usual, the winner will be the sender of the first correct solution opened and s/she will receive £10 credit from Mainair Sports.

You can trace or photocopy the grid or write out your solutions — clearly — if you don't want to cut up your Wings!

Solutions to Stan Abbott, 72 Hartley Avenue, Leeds LS6 2LP by March 31.

## No. 6 by Satan Bottle



### CLUES

#### Main sink

- 5) Bob, Bob, Chris, Eric and Maralys (5,6)
- 7) American journalist is worn out (4)
- 8) Soul returns after bile is quelled. It's the ed's job to make sure Wings! is not this! (8)
- 9) Not seeming any older in sage lessons (7)
- 11) Turbulent (5)
- 13) Lopes, Carr and Bailey were all this one way or another last year (5)
- 14) I met Rich confused in bubbly conditions (7)
- 16) A remedy to being always on the edge of a stall might be to fly... (4,4)
- 17) A long way down, a test perhaps or a spot of rain? (4)
- 18) Wakes, escapes from the flows (11)

#### Luffing

- 1) Southern top fell tail first maybe (4)
- 2) Employ fewer — they're no good (7)
- 3) Blocked ones could be the trike pilot's downcoming (5)
- 4) Hang glider pilot or fellwalker? (8)
- 5) Falcons, perhaps, that left Britain under a cloud (4,7)
- 6) Jimmy flies. Teenage glider-riders perhaps (5,6)
- 10) So I stall badly and end up with my glider vanished (4,4)
- 12) Sprays — time to get under your kite? (7)
- 15) Curse or praise a novice in a black horse (5)
- 17) Still air or what you'll be if you forget to clip in (4)



### LAST MONTHS WINNER

...Ken Shail, of Malvern, won puzzle no.5 and will be receiving his prize from Mainair in due course.

Who is Britain's keenest pilot? Answer Jenny Ganderton — hers was the very first entry for the Foster's Draught British Open. Male chauvinist hang gliding pigs beware?

An ITV World of Sport producer told Hermes the future of hang gliding as a public spectacle lay in aerobatics and synchronised or formation flying...

As if to prove the point, an aerobatic meet at Telluride, USA, attracted good sponsorship, with \$2,500 prize money going to first-placed Dan Racanelli. Larry Tudor was second and took \$1,000.

The major headache seems to be judging what constitutes, for example, a "perfect" wingover for scoring purposes.

Still with the USA, guess who's in for the job of managing the American team in this year's American Cup in the Yorkshire Dales — none other than former British team manager Brian Milton who is quoted in Glider Rider magazine as saying: "The Americans might not want me as coach, but I think they'd be wrong. I just have to be asked."

Mainair Sports boss John Hudson is placing his faith firmly in flexwings and weight-shift control as the best bet for the future of the microlight industry.

Only the prejudice of joystick traditionalists is thwarting weightshift with all its inherent advantages, he says. Mainair is emphasising the point by relinquishing its dealerships for non-flexwings, including Mitchel Wings.

## Get well soon

Flexiform's Hughie McGovern is reported to have suffered a broken coccyx and other injuries in a trike landing in a ploughed field. We wish him a speedy recovery.

## Bailey 4th

Steve Gilmour won the Illawarra International Invitational in New South Wales, with Britain's Robert Bailey, fourth. Bailey's stay included a bizarre "close encounter" with Aussie airspace rules — more next month.

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Additional artwork by Harry Hammill

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BRITISH HANG GLIDING ASSOCIATION: 167A Cheddon Road, Taunton, Somerset TA2 7AH. Tel: (0823-88140).

WINGS! may be obtained regularly by joining the BHGA, or on a subscription of £12 pa in the UK. Those outside the UK are requested to send Sterling International Money Orders — £12 (surface mail) or £24 (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.