

Wings!

NOVEMBER 1980



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This glider has no British C of A.

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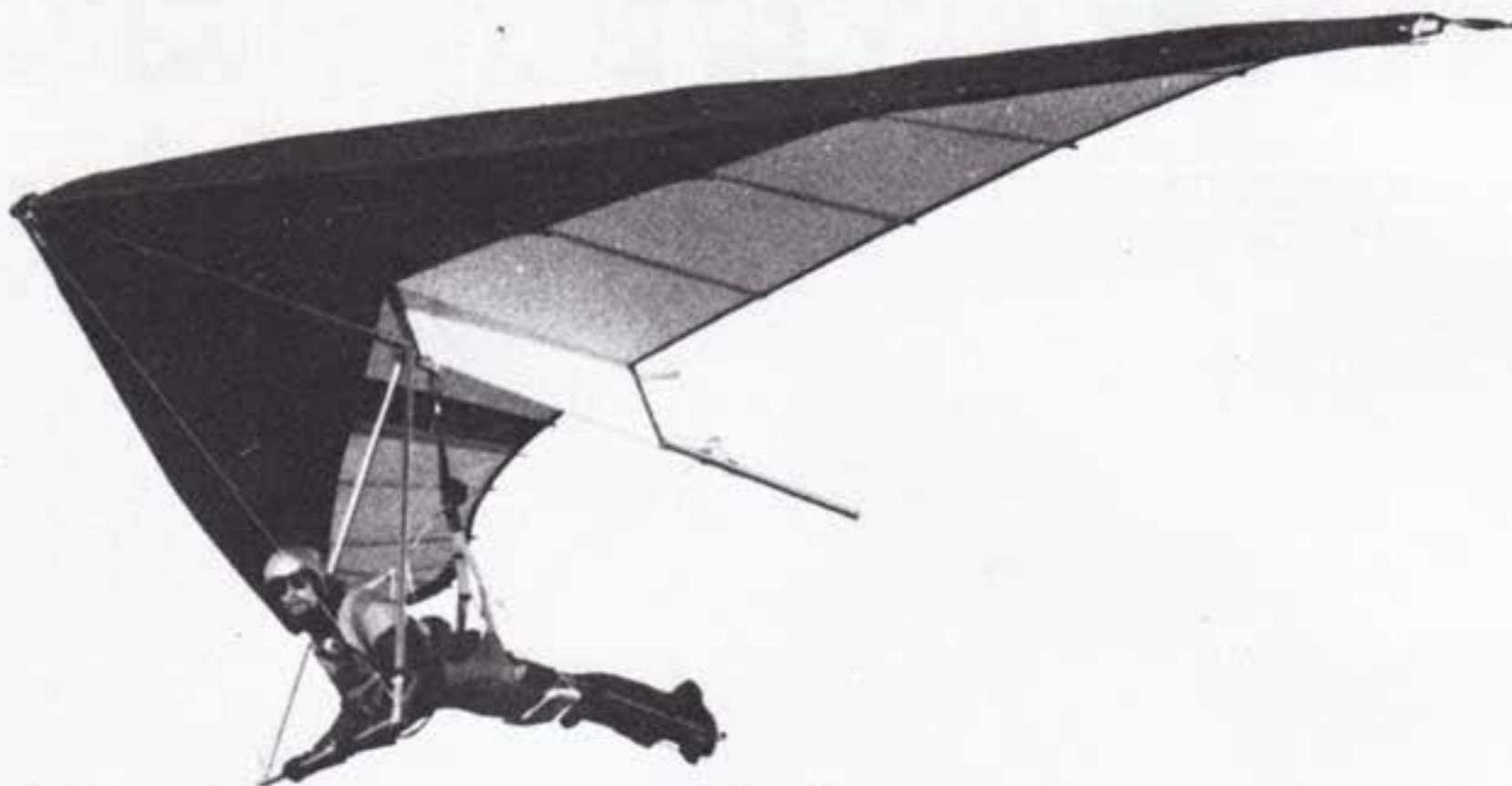
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Southern Hang Gliding Centre
22 Albany Villas, Hove,
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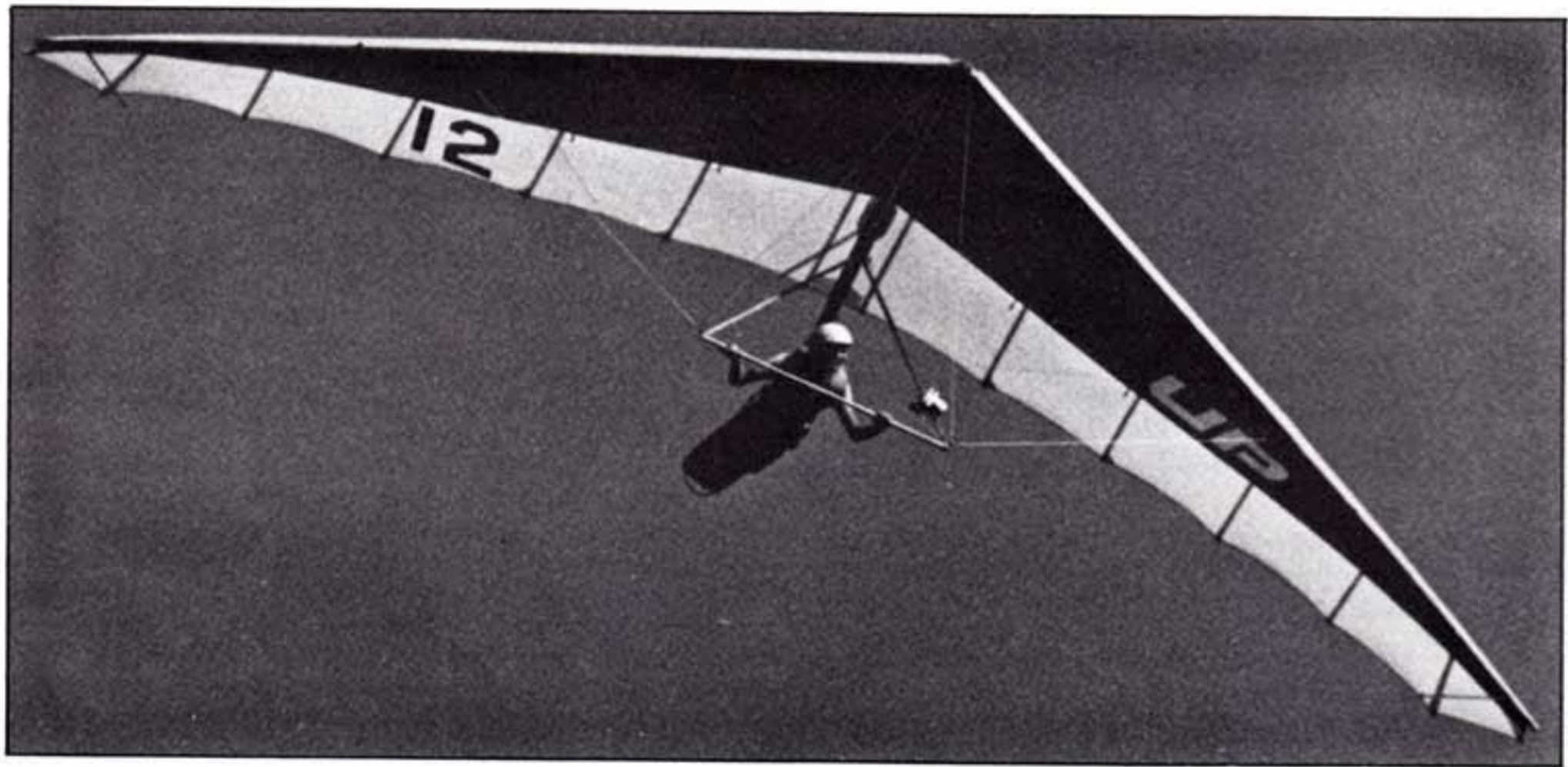
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The sweet handling and outstanding performance of the COMET makes it the first of a new generation of gliders. Take a look at these results!

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The COMET is a high quality aircraft built in Britain to the best engineering standards by Airwave Gliders Limited under licence to Ultralite Products, Inc.



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Telephone Cowes (0983) 295576

This glider has no British C of A.

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Cover photo of Robert Bailey in the Lachens sunshine, taken by Mark Junak.

WINGS! may be obtained regularly by joining the BHGA, or on a subscription of £10 pa in the UK. *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 (if applicable). Please give five weeks notice for changes of address if possible. If you, your club, or any local hang gliding activity get 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.

As you will gather from the last issue, and from the initials on the pen at the top of the column, the November issue of *Wings!* has a new editor (or rather, a resurrected old one) — me, Tony Fuell.

It is now over four years since I laid hands on the BHGA's organ (so to speak) and there have been many changes. The most obvious, from everybody's point of view, is the change to the "large format", A4 size. This gives the Editor a lot more room to play with, and means that it is possible to include a lot of news and features that would have been impossible with the smaller version. But the new format brings some problems. It takes a lot more work to produce — and going for professional standards of artwork and photography, which most readers seem to appreciate, increases the cost. The Editor's job has changed considerably from the days when I used to put it together on my living-room table in an evening or so. Today's *Wings!* represents the outcome of a month of effort by some very skilled people, and I would particularly like to pay tribute to Ian Butcher (our layout man), Sylvia Howard (commercial Editor) and Stanley Pottinger (Letters Editor).

This month's issue has a slightly reduced "news" content, largely because our ace newshound, Brian Milton, was in the USA, leading the British Team in the American Cup. But he will be back next month, so the December issue will have all the blood and thunder, and that unique salty tang we have all come to appreciate since he took over!

Sailplanes . . . again

An interesting development in this issue is the article from Lionel Alexander of the British Gliding Association, giving the sailplaner's version of the "Brothers in Law" saga, which has been running in these columns over the past few months. Mr. Alexander had expressed some concern to Brian Milton that if he did write an article for *Wings!* it would appear in conjunction with a lot of denigratory material and sarcastic comments. So we have deliberately avoided this as far as possible, (although I couldn't resist a few cartoons), and we invite our readers to give us their views for publication in the next issue. Living in the same air as a sailplane is a slightly unnerving experience for a hang glider pilot, as I can testify. On several occasions, both here and in France, I have been close enough to one to hear that unearthly wailing noise that a large object moving rapidly through the air produces. Probably worst was the time when, 1,500 ft. above Lachens, and climbing rapidly up the side of a big cumulus, I heard *the noise* coming from INSIDE the cloud, and getting louder!

I do hope that the BHGA will be able to provide at least some of the reassurances that the BGA are looking for. I would suggest that it might be instructive for the BGA to consider the level of financial commitment undertaken by today's hang glider pilots. Personally, in the last eight months, I've spent £1,400 on gliders and an unknown, but quite large, amount on BHGA fees, insurances, Club fees, magazines and so on, in order to pursue my sport, not to mention the petrol I've used in getting to the sites to fly. For the same money, I could have had a respectable amount of flying in sailplanes — the financial factor isn't what keeps me among the ranks of the "danglers", nor is it, I suspect, for most people in the sport. Hang gliding is not "poor man's aviation" any more, it is not a substitute for those too impecunious, or too stupid, or too lazy to go in for "proper" flying. It has its own existence, and it is not going to go away.

As others see us . . .

There's been quite a lot of discussion on and off within the BHGA about the role of *Wings!* I sat in on a discussion at the AGM last year at which several people got rather vehement that they wanted the mag. to be a "Club" type of publication. These people should take heart from a review of world hang gliding magazines which appeared in the March issue of the new French-language magazine, "Finesse 10". *Wings!*, it said, "contains nothing of interest except for British pilots" . . . "in competition reports of international events, only the placings of British pilots are mentioned" . . . "the articles relate solely to English flying . . ." So, from one point of view, at least, we seem to be getting it right!

But I, for one, don't like to see England dismissed so lightly. *Wings!* can, and should, be a magazine of international stature. It should sell abroad. It should be subject to better standards of printing and layout, and it has improved considerably since "Finesse 10" wrote its review. And if more manufacturers recognised the advertising value of colour, we could improve things a lot quicker — congratulations to Southdown Sailwings for making it possible to have colour on the front cover this month . . .

And finally . . .

Read on . . . there's a lot in this month's issue. It has been fun, and a little bit nostalgic, putting it together. Thanks once again to all the contributors and workers who have made it possible. And many happy "ups" to all our readers . . . **Tony Fuell**



Dear Sir,
Re your "news extra" in September *Wings!* I noticed that Sandy Fairgreave's control frame upright has a distinct bend in it — has he not done his pre-flight check or is this photo just one of him posing with two lead pipes on his shoulders? Is this *Wings!* I read, or the *Plumbers Gazette*? What a load of ballscock!

**Pete Anstey
BRIGHOUSE**

(Well, he did say his flying has gone down the drain lately! . . . Ed. [TF])

CB OR NOT CB

Dear Sir,
Recently the Government produced a Green Paper on CB radio. The paper gives reasons why it will allocate a UHF frequency to CB. Will all pilots, if they can, get one and read it. This really does concern us.

UHF is not suitable for our sport. It does not have sufficient range and it will cost too much for a rig. It is suspected that it may aggravate certain conditions of the eyes (and who wants to go blind that way!) and if you go down in the woods it will not penetrate out.

Please, the comments on the Green Paper must be in to the Home Office by 30th NOVEMBER, 1980. We need CB even if it is called Open Channel. Don't let the Government do it — tell them 928MHZ is not suitable for Open Channel radio.

For the Green Paper, telephone 09544 471.

Send your comments to:
Radio Regulatory Dept.,
Home Office,
Waterloo Bridge House,
Waterloo Road,
LONDON, SE1 8UA.

**Reg Latimer
WITNEY**

BUZZARDS

Dear Sir,
The solution your correspondent John Lewis seeks is surely to find an alternative site for his flying: anybody flying from a cliff with nesting buzzards (and possibly other large birds of prey) is very likely to be mobbed by them and perhaps to have his glider struck. The natural reaction of a pair of buzzards who find a large intruder in their air-space will normally be to try and see it off. All this raises the question of whether birds in general cause problems for hang gliders (the reverse is sometimes the case in some circumstances) and what moral right flyers have to take the law into their own hands if birds like buzzards happen to get in their way.

John Lewis certainly *has* taken the law into his own hands: on his own admission he, or he and his friends, have committed offences under the Protection of Birds Act 1954-67 in using bird lime and in shooting a protected bird. Their irresponsibility in using poison bait (another offence) is incredible — our long-term work on this insidious business shows quite clearly that poison baits are not only killing many protected birds of prey but also sheepdogs. Human life, too, has been endangered.

Several of your readers have already written to us on this matter: the views would be very useful. Meanwhile Mr. Lewis's tactics cannot possibly be condoned. They are not only illegal — they will bring your excellent sport into disrepute.

**M.J. Everett
Species Protection Officer
RSPB, The Lodge,
SANDY, Beds.**

(All right, will the real John Lewis stand up? Information reaching *Wings!* as BM set off for the USA indicated that Lewis's original letter (which, incidentally, has sparked off more abusive correspondence than any other this year) was nothing more than a particularly tasteless wind-up. However, the depth and vehemence of the replies received should, perhaps, reassure the RSPB and other environmentally-concerned organisations that there exists within hang gliding a very deep appreciation of the need for conservation of the wild places and wild things of our countryside. Malcolm Hawkesworth asked for Lewis's address, so that he could make a 150-mile journey to punch him on the nose . . . others were less physical, but just as concerned. Lewis, if you were serious, you're a criminal, if you were joking, it's the least funny joke I've yet come across. This correspondence is now closed . . . Ed [TF])

SMALL AD

From the Canadian edition of the Reader's Digest via Delmar Bicker-Caarten of Guildford: NEW PARACHUTE, used only once, never opened, small stain, 100 dollars.

I CONFESS

Dear Sir,
I have noticed with interest your recent query in *Wings!* (How many fly,) and I wonder have any of you experts ever asked yourselves why there are non-flyers. I ask because of my own case. I must be down on the list as a flyer but seldom do my feet leave the ground. My efforts to learn go back at least seven years, my first flight took place before many of today's experts had heard of hang gliding but my longest flight to date would not exceed 100 yards.

Recently, I came across another chap, similarly placed, and I ask myself how many more are there longing to fly but not quite making it. The possibility that we are the only two in this situation seems remote and if that is the case there could be a lot more would-be flyers around who, for one reason or another, have not learned to fly. Your new non-flying members could have previously been in this category and are now hoping their membership will bring them closer to their secret ambitions.

At the moment, I am renewing my efforts to teach myself but sites and helpers are hard to come by.

Name and address supplied.
(Come on, swallow your pride . . .
GO TO A SCHOOL! . . . Ed. [TF])

CULTURE CORNER

Dear Sir,
Recently, while pondering on my almost total inability for months to clock up a decent flight, or do anything else right for that matter, my mind (?) unaccountably took refuge in that lowliest of art forms — the limerick. The results printed below will give you some idea of the depths to which I have sunk, not to mention a telling glimpse at the deplorable literary taste of the characters who select the material for this magazine. (at least we KNOW it's rubbish . . . Ed.)

There was a young flyer named Bill
Who jumped off a ****ing great hill -
His kite got inverted
And he succinctly asserted —
"Sod this sort of thing for a thrill!"

There was a young lad who was so sure
But he seems to have lost his composure,
When he flew with a cough
His trousers dropped off —
(He got done for indecent exposure).

There was a young flyer named Gee,
Who had beans for his dinner and tea —

He flew off in a gust
Of additional thrust —
And landed at Clacton-on-Sea.

Rodney and Vi MacAteer
Were high-flying dual at Mere —
When he, with a leer,
Whispered words in her ear —
She answered, "Well, Rodney! Not here!"

**Glen Baker
PRESTON**

MID-AIR MATING

Dear Sir,
Recently you stated that active hang gliding members may number fewer than 2,000. If we wish to strengthen our sport by having more participating members, consideration might be given to two factors:

- (1) making gliders less heavy;
- (2) making gliders that combine very good slow and high speed characteristics.

The reasons for putting forward these two points are:

- (1) Weight — on thermal days when winds are light we have got to take a chance and go off hoping to get into a thermal but if it's a big site and we go down many of the not-so-fit baulk at the thought of another climb up. Also, it would be nice to be chasing a few more females round the sky and it may be that we would see more of them if they did not have to develop bodies like construction workers in order to fly.

- (2) Good all round speed and handling qualities: some gliders have permanently incorporated into them large amounts of washout giving them excellent slow speed handling but increased problems at higher speeds. One could liken them to a commercial air liner flying with the landing flaps permanently extended. With devices like, for instance, vortex generators or the hang glider's equivalent of retractable landing flaps, could a better all-round glider be developed. (Incidentally, does anyone know why vortex generators do not appear to be suitable on high performance kites?).

Perhaps the BHGA could carry out a survey through *Wings!* to find out what members consider are the most important glider developments needed and then ask Universities and places like Cranwell to create scholarships to find the practical solutions.

**G.L.N. Jones
LEEDS**

(. . . I tend to think that "better hang gliders" might come a fair way down Mrs. Thatcher's list of educational priorities! . . . Ed. [TF])

ISRAEL ALREADY

by Alfred Porter

From England, Israel is usually seen as something faraway — a small country, a trouble spot. And yet, when you arrive there, the first thing you see is the deep blue sky, serene and tranquil. Then, the hang glider pilot spots steep hills, open to the sea breeze, bony ridges dividing all the landscape, cliffs at the sea shore, facing the Mediterranean sea, blue and inviting . . .

Mount Tabor in Lower Galilee, for example, towers 600 metres (1,800 ft) above the Sea of Galilee . . . just imagine an area like the South Downs around Brighton, or a bit bigger. And in this area you have many really great ridges for soaring, covering every conceivable wind direction . . . you just have to decide which is looking good for the particular direction on the day, then off you go . . . and from mid-February to the end of November you have all the sunshine in the world . . . too much of it, sometimes!

The following flying sites are situated within about half an hour's driving from each other:-

Mount Tabor (see photo)

Can be flown in SW, N, E and SE winds, with a choice of four starting points ranging from 350 to 500 metres (about 1,000-1,500 feet). All launch points can easily be reached by car. The mountain is a lone knoll, high above the surrounding countryside, and ridge soaring is confined to a fairly short length, up to 2 miles. While the site cannot be top landed, it is an excellent thermal site, and is particularly good in the winter time.

Sharona

This site is just a few miles North of Tabor. It's like Mill Hill, only bigger, 200 metres (600 feet) high, AND, it's 30km (18½ miles) long! Takes an East wind . . . can be top-landed in many places, and there are many launch points which can be reached by car.

Mevo-Chama

May be one of the best hang gliding sites in the world. An endless flat top, with an absolutely breathtaking view over the Galilean Sea and the ancient town of Tiberias on the other side of the lake. There is a vertical drop of 500 metres (1,500 ft), and then it slopes to the floor of the lake valley 700 metres below. There are 30 km of soarable ridge, and thermal gains of up to 5,000 ft. are quite usual. Takes a West wind. There are two roads to the top. The locals fly as long as they can stand it, then fly down to the lakeshore — (there's a landing area 50 metres from the water's edge), and go for a swim . . .

Manara

800 metres (2,400 feet) drop, 25-30 km ridge. Many launch points, good approach by car. Alas, no top landing. Takes an East wind, and is especially good in the winter time.

Moving from the Lower Galilee region to the **Haifa** region, we find more very good sites:-

Carmelia

Near the sea, close to Haifa. 300m high, 3-4 km long, takes a South-West wind. Good all year round.

Zichron-Yaakov

100m high, 5-6 km long. West wind. No top landing. Works best from May to October.

There is a very interesting sea-cliff running for 30 km between **Tel-Aviv** and **Nataniya**, which looks very much like the cliffs at Fort Funston in San

Francisco, USA. Works best in the summer months, but is really for experienced flyers only, as it is turbulent, and has a narrow beach below to land on.

All of the above are the main sites in the North and centre of the country. There are many more in the South, and around the Dead Sea, in the incredible "moonscape" countryside. There are many good training sites as well.

When I was in Israel last time, I had some long discussions with the local pilots, who are very keen to promote hang gliding tourism to their country. There are some 100-150 keen flyers, most of them having some other aviation experience, e.g., on airliners or Phantom jets. About 500 people have now been through the local hang gliding school.

There is a lot of interest in receiving visits from European flyers, and particularly from Britain. Most people involved with the sport speak some English, and they are convinced that Israel could become a hang gliding centre of world importance, given its good weather and fantastic sites.

I had hoped to organise a party to go out there this year, but it wasn't possible. However, if any *Wings!* readers are interested in visiting Israel in the future, please get in touch with me:-

Alfred Porter,
32 Leyland Road,
London, S.E.12. Tel: (01) 852 0763
and I will see what I can do.

Don't forget — November and December are very good flying months there!



XC LEAGUE TABLE

by Dave Harrison

Name	Club	1st	2nd	3rd	Average
1 Rob Bailey	Dales	59.3	35.8	36.0	43.7
2 Pete Hargreaves	N. Yorks	18.0	43.2	68.4	43.2
3 Sandy Fairgrieve	Northampton	24.9	20.4	25.6	23.6
4 Bob Harrison	Dales	8.0	16.0	40.3	21.4
5 Dave Harrison	Dales	8.0	50.8	—	19.6
6 John North	Pennine	15.9	10.5	29.5	18.6
7 Ian Ferguson	Lancaster	17.0	9.3	26.4	17.6
8 Jim Brown	Dales	11.0	26.0	15.4	17.5
9 John Stirk	Dales	20.9	14.2	15.3	16.8
10 Andrew Wilson	Sky Surfing Club Hampshire	10.0	17.5	19.7	15.7
11 Colin Lark	Avon	25.7	19.6	—	15.1
12 David Bluett	Southern HGC	18.6	12.4	13.7	14.9
13 Len Hull	Sheffield	8.6	7.1	22.5	12.7
14 Rod Lees	Mid-Wales	14.6	18.5	—	11.0
15 Gordon Holmes	G. Cayley	14.0	6.2	9.0	9.7
16 Carl Tonks	Western Counties	8.8	13.5	—	7.4
17 Pete Anstey	Dales	7.6	11.7	—	6.4
18 John Hudson	Pennine	15.9	—	—	5.3
19 Pete Kavanagh	Pennine	12.0	—	—	4.0
20 Dick Brown	Pennine	9.8	—	—	3.3

All distances in miles.

Rob Bailey squeezes back into the lead. This time by only a half mile. It's amazing that such a small margin separates the two leading pilots, especially when Sandy Fairgrieve, who is in third place, has only flown half as far.

RORY CARTER TO PRODUCE COMET IN UK

Reports are reaching *Wings!* that Rory Carter, the man who was responsible for the development of the BHGA's test vehicle, is to set up a company to manufacture UP's highly successful new glider, the **Comet** in the UK.

The Comets walked away with the recent Southern California Regional Championships, and its revolutionary all-enclosed floating-crosstube design is already spawning a host of "clones" around the world . . . HIWAY, SOUTHDOWN, HILANDER, SKYHOOK, MOYES and DELTA are all known to have similar ships under development.

Airwave Gliders, headed by Rory Carter, has spent the last year developing the hang glider test rig for the C.A.A., now in use with the A.I.B. The company has also been developing its own ideas on gliders as well as keeping abreast of world wide hang glider developments. When UP developed the Comet, Airwave Gliders were quick to recognise it as a big step forward and secured the licence to manufacture it for the U.K. market and Europe.

The company is situated on the Isle of Wight where there is a long history of aircraft manufacture, sailmaking and related rigging skills. To head the sailmaking team the company has secured the services of Graham Deegan who was cutting camber into hang glider sails in New Zealand while manufacturers in this country were still relying on deflexors and billow. He currently leads the world in Olympic Finn class sailmaking (sailmaker to the world champion for the last two years). As managing director Rory Carter will be responsible for all aspects of production and assembly, while the marketing and sales programme will be directed by Andrew Wilson, previously marketing co-ordinator for Vosper-Hovermarine.

The Comet will feature a Mylar leading edge, interchangeable up-rights and control bar, high quality stainless steel fittings and a padded superbag. The Comet has passed the USHGMA certification and BHGA approval has been applied for.

For any further information contact Airwave Gliders Ltd., Unit 3, Plot 9, Dodnor Industrial Estate, Newport, Isle of Wight, telephone no. Cowes (0983) 295576.

HANG GLIDERS ARE DOING IT HIGHER UP EACH YEAR!

EYE! EYE!

. . . a bizarre accident happened to Swedish visitor **Thor Lund** at the Devil's Dyke recently. Travelling with some friends who were taking part in the South Downs Competition, Thor was taking his glider off the car when he accidentally let go of the bunjy strap attaching it to the roof rack. The free end whipped across the top of the car, and struck his eye, the hook entering his face just below the eyeball. He was removed to the Brighton Eye Hospital in considerable pain, and later had to be returned to Sweden by private ambulance. We haven't been able to contact him to find out how he's faring, but wish him a speedy recovery. It underlines the need to take care with elastic straps, though — apparently the Eye Hospital admits a regular stream of people who have had accidents like this one, and hang glider pilots must be more exposed to the chance of it happening than most people . . .

EAST GERMANY BANS HANG GLIDING

Obviously worried by the increasing ability of delta-flyers to cover long distances from their starting point, the East German government announced a **total ban on hang gliding** on October 10. The ban is apparently intended to forestall attempts to use the sport to escape to the West.

The construction, possession or use of a hang glider will be punishable by a fine of up to £125. Reports that a party of Adur District councillors have visited the Berlin Wall to investigate the possibility of erecting a similar structure at Mill Hill are entirely without foundation!

RECORDS AWAITING RATIFICATION

World Distance, Flexwing — **George Worthington**, flying a Moyes Mega II in Owens Valley, on July 25th, 1980, flew 110.60 miles (178 kms) from Cerro Gordo, Calif., to Boundary Peak, Nevada.

World Height Gain, Flexwing — **Jeff Scott**, flying a Wills Harrier, in Cerro Gordo on August 9th, 1980, climbed 12,139ft. (3,700 metres).

Rich Wilson R&FAIACO
Reading (0734) 21099

MICK BURTON

With sadness we report the death of a friend. Mick was one of those quiet, unassuming guys who had always seemed to be around hang gliding. Despite his protracted illness he still managed to fly, even a week before he died. Some of you will remember Mick as a motorcycle scramble and grass-track star, sports which have paid many tributes to him. The Malvern H.G.C. will miss his efforts and enthusiasm as a committee member and our deepest sympathies go to Heather and children, Mary and Sean.

M.J. Pollard gets FAI Delta Silver Proficiency Badge No.3

I have great pleasure in announcing the award of the second Delta Silver to Michael John Pollard by the Federation Aeronautique Internationale. The details of Mick's flight are as follows:

The distance flight of 53.43 km and the height gain of 2000m was carried out in California, USA. The place of take-off was Piute Launch, Owens Valley, and the landing was made 5 miles east of Montgomery Pass. The duration flight was carried out on the Great Orme in North Wales. The first two tasks were carried out on the 4th July 1980, and the last task on 16th September, 1980.

I'm sure that you will join with me in congratulating Mick on being the second Briton to receive the Delta Silver Badge No.3, and to have his name inscribed in the FAI Register.

Rick Wilson



NEW MANAGER TO MAINAIR SPORTS

As detailed elsewhere in this issue, Bob Harrison, Mainair Sports Manager is leaving the Company to take up the position of BHGA Training Officer.

His place is to be taken by a Hang

NONT SARAHS, PENNINES

Because of an increase in the payment made by the Pennine HGC to the National Trust for the use of the popular Nont Sarah site, the PHGC are now to charge visiting pilots the sum of £1 a day site fee. This is payable to any PHGC committee member — if it's flyable there will always be one on site. The club hope the payments will increase the membership of the PHGC, and offset rising costs. The club add that visitors are always welcome to PHGC sites, as long as the usual phone call is made beforehand.

J.S. Wood, Sec. PHGC

JOHN HUNTER'S REPORT ON PRIVATE ERNEST WARNE (DECEASED)

The inquest was held on 16th September, 1980 in Northampton. The main cause of the accident was because Warne was converting from seated to prone flight from a small hill and at a very early stage of informal training.

Evidence led to a conclusion by the Coroner that:-

"When converting to fully prone flight it is dangerous to do so without sufficient ground clearance to recover from any loss of control. For first flights in the fully prone mode a hill that allows ground clearance of 400ft. or more, soon after take off, should be used."

The Coroner instructed that a directive to this effect should be circulated as widely as possible in the hope that similar accidents could be avoided in the future. Please therefore take action to see that your members and other flyers using your sites know and observe the above.

Initial flights where a pilot wears a prone harness to gain experience of take offs and landings with it can be made from smaller hills but during such flights the fully prone position should not be assumed.

Gliding Instructor, Paul Frain, who lives in Halifax. Paul is 23 years old, single and has been flying since 1975. He started hang gliding from attending a Tow Kiting course held over water at the Nottingham Ski Centre.

Although not in the league, Paul has his 3 qualifying flight this year, but has decided not to enter until next year. He's flown in Lachens, France and has a number of good XC's to his credit.

NEW ACCIDENT REPORTING SYSTEM

Council has appointed Diane Hanlon to be responsible for Accident Investigations (where necessary) and for obtaining information on hang gliding accidents. The information gathered will be used as far as possible to advance Accident Prevention. John Hunter remains the BHGA's Chief Accident Investigator and will investigate fatal and *some* (very serious) accidents. Diane and John will enrol help to investigate some others. Group Captain Balfour (R.A.F. Chief Pathologist), Rowland Bashford (statistics and analysis), Mike Collis (prevention) and Brian Milton (*Wings!* Editor and Press Officer) will continue to be major contributors in the process.

The new SIMPLIFIED SYSTEM for the Reporting of Accidents using an Initial Notification Procedure is explained on the BHGA form ACC/CLUBS 2. It "check lists" actions and information required.

THE SYSTEM FOR THE REGIONAL REPORTING OF ACCIDENTS, ABOUT WHICH INFORMATION MEMOS WERE SENT TO CLUBS IN FEBRUARY 1978, HAS BEEN SCRAPPED.

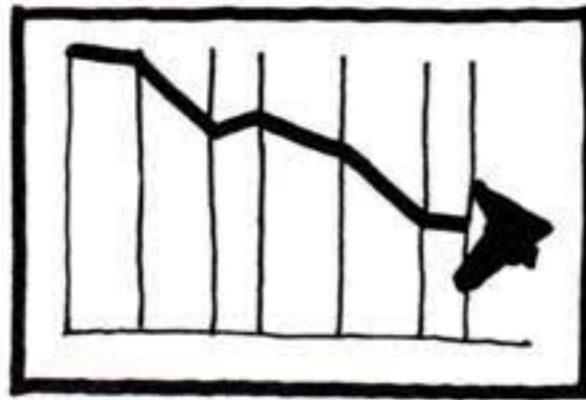
All clubs controlling sites are to be asked by BHGA to appoint someone to be responsible for reporting to Diane. If clubs have one of the old system's Regional Co-ordinators as a member he is an obvious choice. Individuals appointed are asked to report all accidents/incidents that take place in THE AREA IN WHICH THE CLUB HAS SITES, including those involving Training Schools (Registered or otherwise) or which involve members flying in areas that have no clubs. They may also be called upon to carry out or assist with accident investigations. Registered Clubs should arrange to report accidents involving their members to the Site Controlling Club to which they are Affiliated or in whose area the accident occurs. WILL CLUB SECRETARIES OR THOSE APPOINTED PLEASE CONTACT DIANE DIRECT TO LET HER KNOW WHO IS RESPONSIBLE WITHIN YOUR CLUB at:-

37 Kings Mount,
Oxton,
Birkenhead,
Merseyside.

(or by 'phone on 051 652 5918)

If Registered Clubs have their own exclusive sites or are operating in areas that have no site controlling Member Club please also do as requested above.

A copy of the BHGA "Accident Prevention & Investigation Manual" is being sent to clubs known to be Site Controlling clubs, for the use of the person appointed. A copy will be sent to Registered Clubs requesting a copy.



SEPTEMBER MEMBERSHIP FIGURES

The bad trend in BHGA membership figures continues with the publication of the September trends. This year, there were more people who didn't renew their BHGA membership than ever before at this time, and while those who renewed were reasonable (not good), there was nothing to shout about in new members either. One of the worst trends is in the number of enquiries. Last year there were 560 enquiries in August, and 620 in September, about hang gliding. This year the figures are 165 and 156 respectively.

	1977	1978	1979	1980
New Members	192	121	103	136
Didn't renew	78	133	108	159
Renewed	148	207	220	200
Total Membership	3470	3577	3642	4020



NEW TRAINING OFFICER

Bob Harrison, who worked as manager for Mainair Sports in Rochdale, Lancashire, has been appointed by a BHGA Council Committee to the post of Flying & Training Officer, with a proposed salary of £6,000 pa. The previous BHGA Training Officer was Keith Cockroft, who resigned after 3 years' work earlier in the year. Bob, who's 28, comes from Yorkshire, and belongs to the Dales HGC. He's been a member of the National League since 1979, and was one of the 1979 American Cup team. He was the 1979 Scottish Open Champion. Bob started flying nearly 4 years ago, taught by his non-flying brother Dave. Seven months later, Bob taught Dave to fly, and Dave now runs the XC League table. Earlier this year, Bob captained the British team to the Lachens XC in the South of France, and later flew in the Bleriot Cup. He's been manager at Mainair for nearly 2 years.

SHOCK, HORROR, ETC. . .

"It should be banned", says MP. . . ?

There is a sport . . . it is so dangerous that fourteen people were admitted to one Scottish neurosurgical unit suffering from head injuries as a result of playing it . . . mostly with depressed fractures of the skull.

And the name of this horrifyingly dangerous pursuit? . . .

Well, GOLF, actually . . .

An article in the British Medical Journal on September 20th reviewed all the admissions to the neurosurgical unit in Glasgow over a five-year period, which had resulted from sports injuries. Of 1900 admissions in this time, 52 (2.7%) were sports-related, and the "league table" of head injuries looks like this:-

Golf	14
Horse-riding	8
Football	7
Shooting	5
Climbing	4
Rugby	3
Boxing	2
Skating	2

"Others" — 1 each: Swimming, karate, hang gliding, squash, hockey, cricket and athletics.

Horse-riding in particular was singled out by the authors as producing severe injuries, three of the eight cases being left with some residual disability.

The authors also note that the popularity of golf in Scotland may have something to do with the high injury rate (caused mainly by children standing too close to the players tee-ing off, apparently), and they make the interesting suggestion that any injury causing loss of consciousness should be followed by a period of at least four weeks before the sport is attempted again (as in boxing).

Rumours that Roy Hill has received a spiritual message from Marcus Lipton, MP suggesting that golf should be banned are wholly without foundation . . .

DANGER!



Daredevil's six-hour triumph

To Paris . . . by a hang glider

By VIV ROBINS

THAT daring young man in his flying machine has finally made it!

David Kirke, founder of the Gloucestershire Sports Club, yesterday crossed the Channel by powered hang-glider. . . four months after his first attempt left him up-ended in a tree in a Surrey village. . . But this time the stunt went without a hitch. He took off from Craydon, Surrey, and six hours later landed in a field 50 miles west of Paris. Mr Kirke, 33, claims that he has broken the world powered hang-glider record in the process.

He said as he rested at a friend's house outside Paris: "The record stands at something like 210 miles but I managed 240 miles and still had two gallons of fuel left."

Perfect

"I flew at 2,000ft and had perfect visibility. I could see for miles." Mr Kirke is an Oxford University lecturer whose other



David Kirke in his hang glider.

NEWS EXTRA

I.O.W. TO HOST HANG GLIDING EVENT MAY 1981

The Isle of Wight Club and Shanklin Hotel and Guest House Association are jointly organising a week of hang gliding activity on the Island, 2-9 May, 1981. Competitions and 'Free' flying for both powered and unpowered gliders for BHGA and MAA members.

A beautiful holiday area with social events arranged by the Shanklin Ass. (*what, or who, is the Shanklin Ass.? - Ed.*) and an official welcome by the Mayor of South Wight Borough Council will ensure a good time for all flyers and their families on many interesting flying sites where families can be on the beach while hang gliders fly overhead.

Coach tours for families and friends are being organised during the week.

It is proposed that organised flying will take place on Saturday and Sunday, 2nd/3rd, on Wednesday 6th and Friday 8th May. 'Free' flying at all other times.

Free car parking and rigging areas on Shanklin Front, a stretch of beach reserved for landing (and powered take off) is being arranged.

Special rates for ferries to the Island are being negotiated.

An accommodation list and a list of camping sites will be available nearer the time.

The Island alone is worth a visit and to be made really welcome with a hang glider. What else is there to say. . .?

A BRITISH NATIONAL DISTANCE RECORD FLIGHT

Pilot: Peter David Hargreaves
 Date: 17th May 1980
 Place of Take-Off: Knipe Scar, Kettlewell, Yorkshire Dales
 Distance: 110.2 km or 68.4 miles
 Place of Landing: St Bees, South Head, Cumbria.
 Type of Glider: Birdman Cherokee
 Official Observer at take-off: R.E.D. Bailey No.11
 Witnesses to landing: Mr M.J. Housby, Flosch, High Street, Wigton, Cumbria and Mr. T. Kellen, 37 Lattrigg Road, Mirehouse, Whitehaven, Cumbria.

VARSVITY MATCHES?

The Reading University Hang Gliding Club would be interested in forming an inter University Club with other College and University Clubs. The Club would organise competitions, facilities and hopefully the Governing body (second to BHGA) for the sport.

Any interested Committees contact RUHGC either by writing to:

Hang Gliding Club,
 C/o Reading University Students Union
 Whiteknights
 Reading, Berks.

or phone Simon Dales on Horsham 4843 (during vacation).

ATTENTION WOMEN FLYERS

The Secretary was contacted by a *potential* sponsor on the afternoon before this issue went to press. A manufacturer of women's garments will consider putting up prize money and attempt to get TV coverage for a non-public competition for women flyers. If you would like to take part please send your name and address to the Secretary as soon as possible. He will then know if you are interested and will contact you if the sponsor decides to go ahead.



Dougie Maynard stuck it out for a 25 minute flight to reach the nude beach in Brighton one afternoon during the summer. . . . Photo courtesy Brighton Argus.

RECORDS AWAITING RATIFICATION

Jo Binns gets British National Distance Record Flight

Pilot: J.H.R. Binns
 Date: 25th July 1980
 Place of take-off: Cerro Gordo, California
 Distance: 164.85 km. or 102.44 miles
 Place of landing: Janies Ranch, Nevada — Men only!
 Start time: 13.50
 Time of landing: 18.05
 Type of glider: Cyclone Mk.2
 Official Observer at take-off: Keith Cockroft
 Witnesses to landing: Betty Lodge, Janies Rach, Keith Cockroft.



ANDREW WISEMAN PROSECUTED

"Birdman glides into Trouble", said the Guardian, sedately. "Court ditches hang glider" said the Mirror. "Seaside Flap for Batman", (ho ho) said the Sun. "Bully boy tortured Airman with Cigarette", screamed the Mail, but that was another story. . .

The smaller columns of the 'home news' sections of the daily press on October 21 all carried the news that on the previous day, **Andrew Wiseman**, age 28, of Blackpool Road, Carleton, near Blackpool had admitted flying an aircraft at lower than 1,500ft. in a built-up area, and had been given a conditional discharge for 12 months by Blackpool Magistrates.

Andrew's offence took place in June, on a Sunday, at Bispham Cliffs. Apparently he soared for a while at about 50ft., (causing a certain amount of traffic chaos) before landing on the beach after being instructed to do so by police. He denied the charge of "wilfully causing his hang glider to endanger persons or property", and the prosecution did not proceed with this summons.

This prosecution is apparently the first successful prosecution of a hang glider pilot in the UK, and as such it's a bit unfortunate that it received such wide publicity. We are hoping to get fuller details of the circumstances, and the legal issues raised by the case for publication in a subsequent issue. Of particular interest to pilots in many areas of the country will be the legal definition of "flying in a built-up area". Since, (presumably), Andrew was flying above the beach, rather than the road or the houses, it is difficult to argue that he was *inside* a built-up area. Previously it has always been assumed that for aviation purposes, boundaries went vertically. It may be that the fact that the take-off point was inside the area was the deciding factor.

This prosecution may well encourage the police in other resort areas to take action against hang glider pilots. There are many places in the UK where flying takes place on hills or cliffs with houses nearby, and it would be a pity if over-zealous fuzz were to make life any more difficult than it already is!

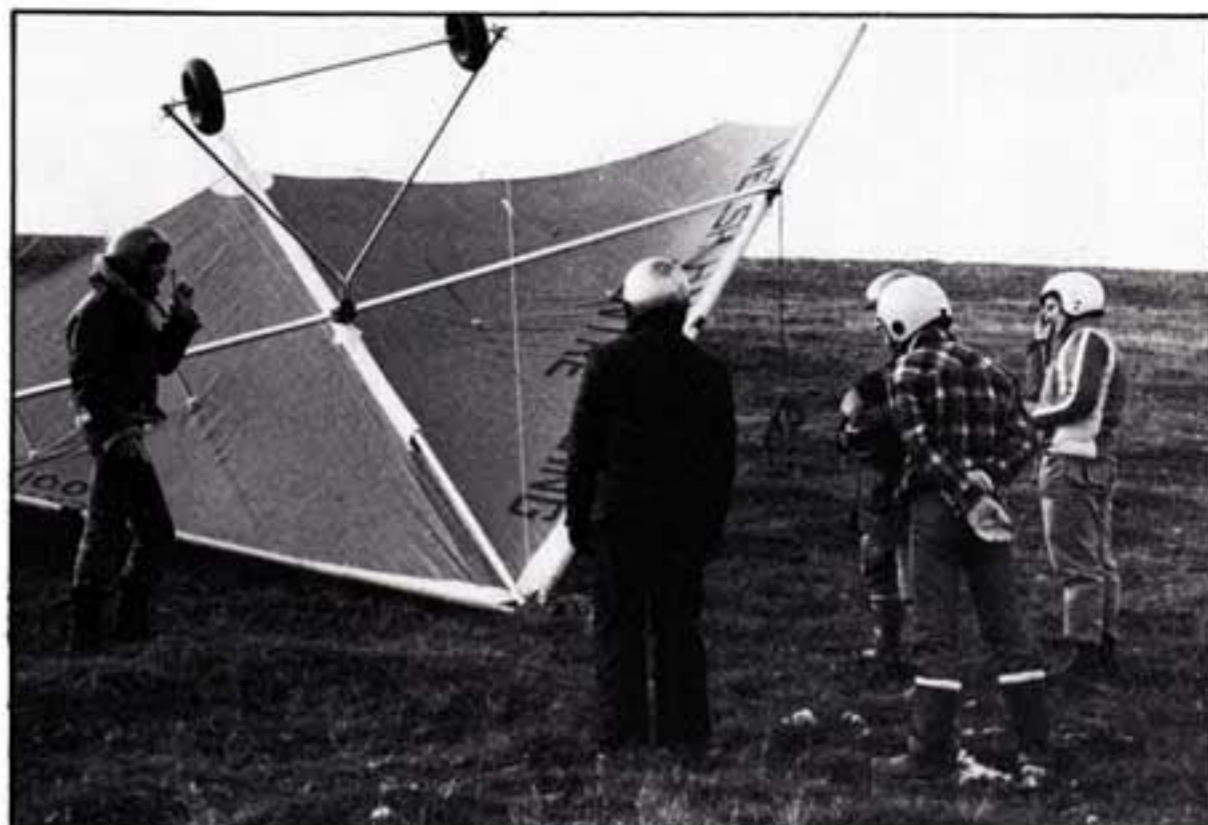


BHGA INSTRUCTOR'S COURSE

The 1980 BHGA Instructor's Course has just finished, and was apparently very successful. (A full report will be in the December issue. . . Ed).

But **Colin Lark** has asked *Wings!* to give an early notice that the *next* course will be held in February 1981, and persons who want to be considered for it should advise him, either directly (his telephone number is given opposite the editorial column), or via the BHGA Office as soon as possible.

The 5-day course qualifies pilots to practice as BHGA registered instructors. Applicants should have the written backing of a BHGA Member Club, should be Pilot 2 cardholders, and should have at least two years flying experience. Be warned, the course is a tough one — it is a mix of theory and practice designed to test every aspect of an instructor's ability. It finishes with up to 5 hours of written theory. . . Ann Welch says that if you pass this, you'll make an excellent instructor!



. . .but most important, keep the nose into wind. . .

. . .right! who's going to volunteer to be pupil? Photos Ann Welch



US take America Cup — Hobson Top Pilot

Technological superiority allowed the Americans to walk away with this year's American Cup competition. A weary Brian Milton, speaking from his hotel in Chattanooga, Tennessee said "The lads were magnificent. They couldn't have given any more, but the Comets were just too good".

Man of the competition was British pilot Graham Hobson who took the overall Best Pilot award, and the Francis Rogallo trophy. The British team placed second after the Americans, followed by France (third); Canada (fourth); Brazil (fifth) and Australia (sixth). There was a 5000 point margin between the US and Britain on the final day, and this was too big to be overcome, despite early hopes.

Brian commented that while the tasks set in the competition were not as good as those set, for example in the Bleriot Cup competition held at

Lachens in France, the standard had been pretty high. Some tasks had involved competitors in three-hour flights in very high wind conditions — ideal for very fast gliders! The level of skill shown by all the teams was described as very high indeed.

Australia's poor result is explained by their perennial problem of getting teams to international events, and partly by the loss immediately prior to the competition of one of their strongest flyers, Peter Brown. Peter, whose performance on the competition circuit last year earned him a formidable reputation, — he flew an all-black glider, died in a motorcycle accident under unusual circumstances in California immediately before the event.

(We don't have enough details to report this properly at the moment, but hope to get more information for next time. . . ed).

The British team apparently en-

joyed themselves in the practice before the competition by shattering all the local XC records. The previous area record of 25 miles went by the board, as in quick succession Robert Bailey (48 miles); Graham Slater (45 miles); Bob Calvert (42 miles); Mike de Glanville (43 miles) and Mark Sylvester (41 miles) flew from Mt Whitwell.

The event has been well covered by the local media, with lots of press and TV exposure, which must be a good omen for next year. The December issue of *Wings!* will be carrying a full report of the American Cup competition, and elsewhere in this issue you will read details of plans to market the Comet in the UK. Let's hope that by the time we get to next year the British manufacturers have come up (UP. . . Geddit?) with something to beat it. . .

The First Sky Trike



by Gordon Faulkner

If you have ever visited the Hiway factory at Tredegar you may have noticed a grinning dwarf lurking around the place. If you later found that the source of the loud but elusive clatter that your vehicle suddenly developed was a handful of nuts and bolts in one in one of the hub-caps then you need look no further for the culprit.

Not many people know it, but this same demented hunchback is also responsible for originating, designing and constructing the Mk I Hiway Sky Trike; (the one pictured with Rob Stokes on the front cover of *April Wings!*) and the first test flight.

His name is **Frank Tarjanyi**.

Now I'm aware that some of you regard the new trike phenomenon as an ugly festering carbuncle thrusting its way out of the pure body of hang gliding — but then again maybe there's a few more who see it as a real neat little breakthrough that's given us the first easy to fly, reasonably safe, power option for flex-wings.

Whatever your opinion, the fact remains that if you own, or can purchase, a suitable flexwing the Trike will convert it into a powered aircraft possessing an extremely enjoyable utility quite beyond that of your original wing. So I reckon it's about time someone was heard to say "Well done, Frank!"

GRABBER

So, "Well done, Frank!" (You wanker!)

To be strictly accurate the seed was sown in Frank's mind by Gerry Breen, who showed him a picture in *Vol Libre* magazine of a tricycle device attached to a flexwing. The first I knew of it was when Frank arrived at my place in a more manic state than usual, with a few scribbled drawings in a notebook. He was extremely taken with the trike idea, so much so that he forgot to make his customary attempt to grab my wife!

He already owned a Scorp II, which he thought would be a suitable wing. And, as the Hiway scrap/offcuts bin was reasonably well stocked with assorted tubes and stuff there didn't seem to be any reason not to get the project started.

At this time Steve Hunt was engrossed with developing a 3 axis control rigid prototype and he was only vaguely interested in the trike idea.

He offered Frank an experimental propeller which, I believe, was intended for the 3 axis aircraft. This definitely helped a great deal and saved a lot of work.

Various cheap and available engines were considered and ruled out for the usual reasons. The MAC 101 direct drive unit gathering dust in a corner of the factory gave Frank a few bouts of incipient larceny tempered by doubts as to this unit's suitability. Then the Valmet 160 engine surfaced through a contact of Steve's.

MIDNIGHT OIL

Over the next two weeks or so the device took shape. It was evening and weekend work, often midnight oil stuff with a few niggly problems to solve. Frank winds himself up a bit sometimes so the project cost him a few restless nights. A reduction gear was worked out for the Valmet/prop combination and machined up, wheels were taken from the stores (as fitted to Harrier trainer bottom bars) and axles to suit were turned up on the lathe. Front forks were fabricated and a foot throttle linkage was fitted to them. Manifold and silencer were welded up from steel sheet and tube. All the other non-scrap-bin components were totalled up and Frank agreed a fair price with Hiway for the whole package, including the Valmet and experimental prop. (At about the same time a plastic seated chair disappeared from the canteen. Its dismembered steel skeleton was later unearthed behind a milling machine).

John Ievers and Geoff Shine were watching progress with increasing interest. The project was looking less like yet another powered pipe dream as each day passed. Frank worked the last two days on it in company time so I suppose you could say that it was at this point that it became an official Hiway development programme.

IN THE SWAMP

The wing to trike coupling was worked out finally and the initial decision to allow control inputs in two axis only (no facility for yawing the trike relative to the keel) has since proven to be a sound one.

And so it came to pass, in the afternoon murk of Sirhowy Field, some three weeks after the project's germination, that the device began its first taxi-ing trials. Thrust was a shade low at — about 78 lb. static — which together with the soggy ground conditions prevented the aircraft from reaching take-off speed. The fact that Frank was blinded by sprayed mud from the open front wheel didn't help much either!

After a lengthy discussion covering most of the technical factors involved, the solution seemed to be to drag it up to higher ground; out of the swamp. This would also provide a downhill take off run to supplement the lowish thrust. Apart from Frank those present were John Ievers, Geoff Shine, Nick Whittam, Barbara Tarjanyi, Will Bonner and myself.

A fair amount of tension was building up. The trike wasn't a silly mud buggy or a nuts and bolts project any more, it was a potentially lethal flying machine. There was no doubt that it would leave the ground from its new starting point.

Its approximate behaviour in the air was theoretically predictable to a point but there were a few shadowy areas in the calculations. Remember that this was the very first time the trike concept had been put into practice in this country, to the best of our knowledge. Certainly no one present had ever seen one before, apart from the picture in *Vol Libre*.

TAKE-OFF

Frank was a shade tight lipped as he strapped in. Barbara was frightened.

After a take-off run of about 70ft. the wing began flying. The trike lifted off rear wheels first, the front wheel remaining on the ground for a few moments, causing a control problem while it did so. Frank climbed straight ahead towards the factory. The aircraft appeared stable. Conditions were misty with a visibility of perhaps $\frac{3}{4}$ mile and little or no wind. I was relieved when the pilot began his first turn before we lost sight of him.

He stayed up for about five minutes, completing several turns in each direction, flypasts, and throttle variation tests. Control appeared smooth and coordinated. It looked fine apart from the trike's slightly nose wheel down attitude (this was due to too great an angle between the base and upright members of the airframe). The wing was at a high angle of attack but this had been expected.

Frank set up a power off approach to a slightly uphill landing on the shoulder of the slope. Again the too low nose wheel caused a problem by touching down first. This was aggravated by the uphill landing.

There followed much questioning and congratulations. Nice one, son.

Frank's enquiry "Who's next?" received a brief, but pregnant, silence. John said he'd try it.

Again the tricky rotation, followed by a short but interesting flight for John, who sensibly went for a flat ground landing. Then Frank flew for another fifteen minutes or so, in deteriorating visibility.

Geoff flew it next, but he's a bit heavy for the then available thrust and, after a very difficult take off, he scored the first mid-air "nasty" when the fuel line broke free and began dousing the back of his flying suit with petrol. With a hot engine six inches away this opened the door to some nightmare possibilities — hence Geoff's landing was not as gentle as it might have been!

The result was a bent lateral member and a bent upright on the trike airframe plus some useful information on the aircraft's overall resistance to a very heavy landing over a ditch with a 16½ stone pilot aboard. A modification to cure the nose wheel problem was a touch overdue anyway, so it was probably just as well.

DEVELOPMENT

The following morning the repaired and modified new toy was flown again by Frank, then myself, Chris Johnson, John, Geoff (after carefully inspecting the new low chewing-gum content fuel line fixings), Nick Whittam and Beejay Harrison, each an employee (or bwana). Opinions were generally favourable, the low thrust being a very obvious shortcoming that would need to be worked on. After the machine had been flown for a couple of hours or so almost non-stop the news spread to nearby Crickhowell and the Welsh Hang Gliding Centre. Gerry Breen was away at the time but Jim Bowyer, Keith Cowan and a few more came trucking over and joined in the growing mood of delight and elated enthusiasm surrounding Sirhowy Field. Not to mention the mild aerobatics which, in retrospect, I guess were not without hazard since the aircraft was getting some heavy treatment and was beginning to show up minor defects that would require modifications.

NOW THEY PAY ME . . .

But the Trike had arrived. It worked. One of my thoughts at the time was that, although the aircraft looked much the same as a hang glider, it very obviously wasn't one any more.

Apart from doing some spanner jockeying for Frank, my contribution to the project was that of test dummy. The principle being that if anyone as grossly incompetent as myself can get away with flying it, then it can't be all that bad!

Now they pay me to assemble the things!



ICARUS ALLSORTS

... musing thru' the bottom of his glass, the other day, Icarus was trying to remember how the name of his column had come about. It's probably the oldest name in hang gliding now, having been invented by John James (*whatever* happened to John James?) to head up his column in the old "Fly paper" magazine which was put out by the National Hang Gliding Association in the days before the BHGA got going.

Remembering that most of today's hang glider pilots probably weren't even out of the egg when that publication was about, Icarus called for another round, and settled back to work out the mystery. Eventually, after many brews, the secret came to him. And for the benefit of all the readers, here is how you get to the bottom of the puzzle ...

... (i) call for a brew; (ii) Say "Icarus Allsorts" very quickly, three times; (iii) Drink your brew; (iv) Call for another brew ...

Repeat as necessary, until shpeech beginsh to shlur a liddle bit ...

And then you'll have it!

... shpeaking of shponshors, reminds me that a number of those fine upstanding League personalities, whose manly, Christian bearing has done so much for this wonderful sport of ours, were seen at the last (abortive) League final to be rapidly taking on board large quantities of Bob Martin's sponsor's product — which Icarus won't name (because he's not getting paid for it) — anyway it's a brand of gin that rhymes with "trilby's" — and several of them were seen to be distinctly the worse for wear on the Sunday afternoon. Even the normally abstemious **Johnny Carr** was seen to take a barf ... and not the wash-house type, either! ...

... the photo shows **Chris Johnson**, who's normally sponsored by WINDMASTER SAIL-CLOTH, taking an interest in his rival's arrangements ...

... A funny thing, this question of alcohol and flying. Icarus had a quick leaf thru' an excellent book by American author TOM WOLFE, called "The Right Stuff" — about the astronaut training programme. It has some very pertinent things to say about the flying ethos ... particularly, the mythical ingredient of a hot pilot, his "right stuff". Either you've got it or you haven't, and fighter pilots always seem to have more of it than anyone else (*until hang gliding came along - Ed.*). A large part of the fighter pilot's life, in the USAF, in the mid-50s, consisted of what Wolfe identifies as "Flying and driving, and drinking and driving". Is it any different today? The traditional fighter jock drinks all night, staggers to the flight line at dawn, blasts his F-100 into the stratosphere, and comes back to say, with a knowing grin, "I don't recommend it, you understand, but IT CAN BE DONE"

... (If you've got the Right Stuff, you miserable pudnocker, you). While not in any way condoning it, there seems to be quite a bit of that in hang gliding, too. The last issue of the **Sheffield HGC** newsletter notes that they have a large group of members who are never seen as long as the pub's are open ...

... and to top that, the **Devon and Somerset Condors** seem to have a group of members who are never seen AT ALL ...

... wrenching his mind from the mindboggling concept of a group of non-extant flyers, and the consequent problems of definition ... if they're not seen are they really there at all? ... do other



hang glider pilots exist when they're not in your airspace? ... and so on, Icarus called for another brew, and settled into trying to make the giant conceptual leap between horses and hang gliders ...

... having seen **Richard Viner's** horse, "**Brennan**", do his all-singing, all-dancing impression of Johnny Carr recently (quite good, but not half as good as J. Carr's imitation of a horse!), it came as no surprise to Icarus to learn that **Tom and Jeannie Knight** were getting into the equestrian scene in a big (well, biggish) way. Having persuaded the Jockey Club to let them use their school colours of red and black, in a delta-shaped chevron, no less, Tom and Jeannie will be running their racehorse "**Wondayle**" as soon as he's fit to go. Rumours that the nag has been trained as a tow vehicle are denied ...

... shpeaking of towing, Icarus' commiserations go out to ace French test pilot **Hubert Apetit**, whose glider test reports have done so much for the readers of *Vol Libre* magazine. He apparently broke his collar bone in a towing accident recently ...

... spotted in Brighton recently, and not a million miles from the casualty department of the hospital was **Vince Hallam**, the Ronald Reagan of the Sou-

thern HGC. Seems that Vince has fallen victim to the demon kite flyer of Mill Hill (nothing at all to do with HIWAY), and had suffered a heavy landing on his ... well, lower abdomen is the anatomical term for it, but in Vince's case, this doesn't do much justice to the majestic scope and volume of the organ concerned. If ever a case was made for the therapeutic value of a well-upholstered paunch, this was it ...

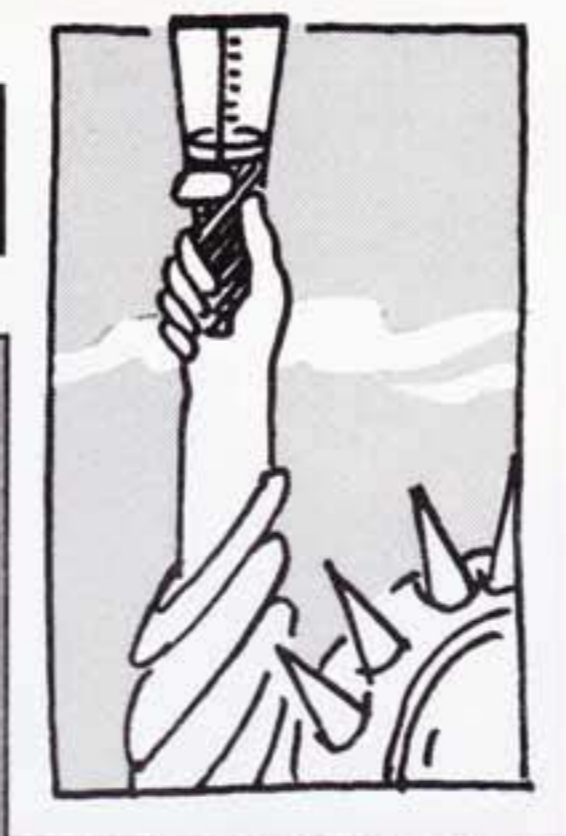
... and still with the SHGC, (with some Thames Valley involvement), it seems there's a developing feud going on between **Graham Leason** and **Andrew (Grub) Hill**. Seems SHGC's arch-animal and the White Hope of the Future can't get together on a site like Coombe Gibbett without exchanging mutual insults of the "I can fly further than you" type. Reprehensible though these public displays of emotion might be to Icarus (who's a peaceful sort of fellow), the net result is that both of them have advanced their XC techniques considerably, boding well for their League performances next year. So it's probably all right ...

... next month's Icarus will be back with its glory untarnished, and all its bits and pieces intact. Until then, gentle readers, you'll have to possess yourselves, (or if not yourselves, then someone else's), in patience. Thank you, and goodnight ...

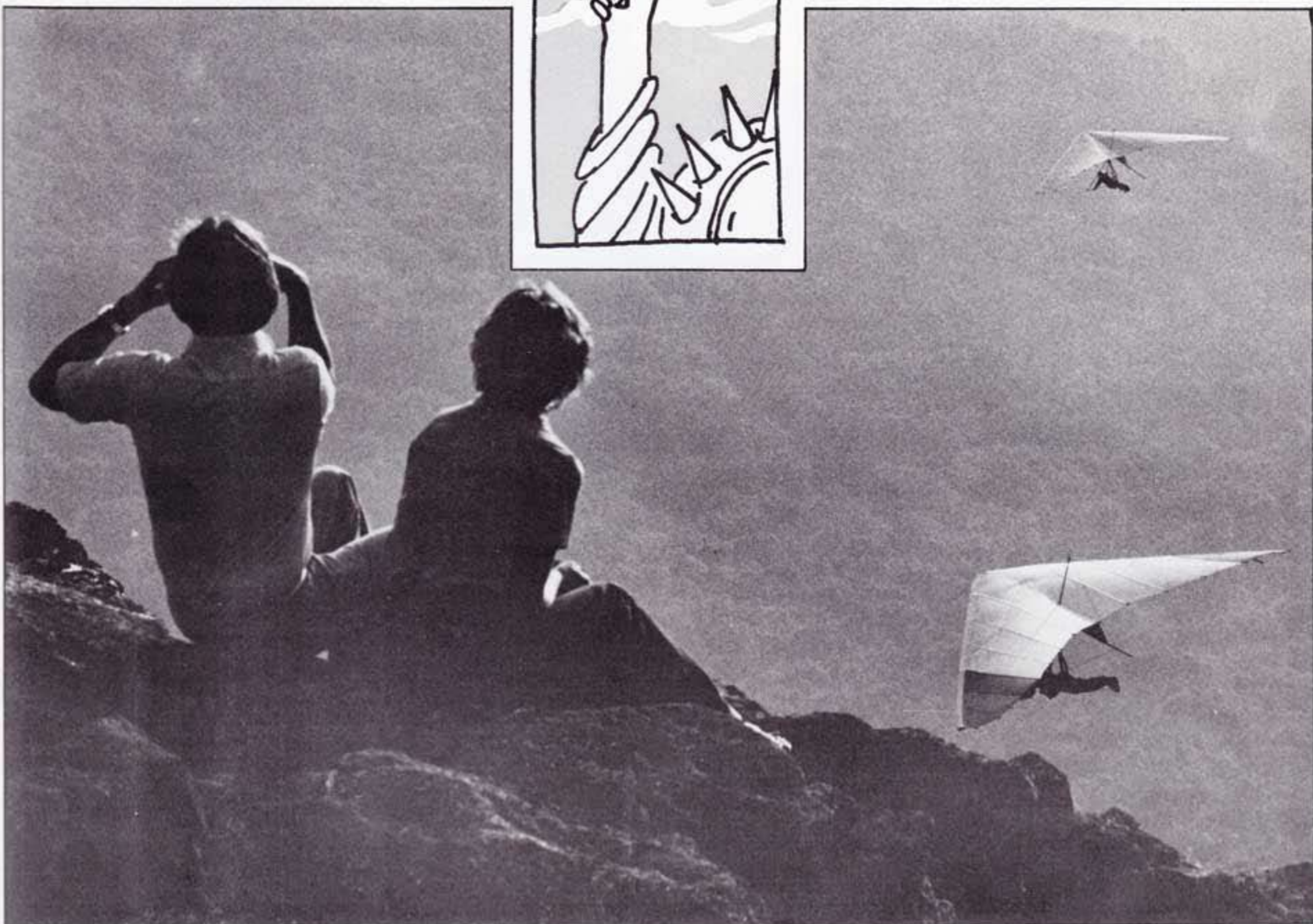


Who says flying at 20,000ft. has little effect? Keith Cockroft before the flight — Keith just after landing.

AMERICAN



PIE



GRANDFATHER MOUNTAIN NORTH CAROLINA

by Robert Bailey
(The Great White Skunk Hunter!)

U.S. Masters Hang Gliding Championship invited 27 pilots to the meet. The Competition was run on a "one on 3" basis, over 7 days. There were lots of **Megas**, one **Maxi**, one **Sensor**, two **Harriers**, three **Comets**, one **Electra Spirit**, one **Seagull Sierra**, two **Wills Ravens**, and my **Atlas 18**.

I had some good practice flights and gained my **Raven Award** on the second day. That is given for a



Photo Mark Junak

one-hour flight on Grandfather Mountain — not as easy as it sounds. Some wellknown names have been going to Grandfather for years and still have not got their Ravens!!

Grandfather Mountain is a spine-back mountain and take-off is three-quarters of the way from the top. It faces north-west and south-east with take-off points at both sides and just enough room to rig six gliders (and we were rigging nine)! It was really tight on the rocks!

The whole show is put together by **Hugh Morten**, a really good guy. He is "President of the Mountain", — it's a type of park, with 'Mildred' the bear, a cougar, and an abundance of wildlife. I got myself the name "The Great White Skunk Hunter" after posing for pictures — (anything to get my picture taken), with a skunk that climbed into a rubbish bin overnight and couldn't get out.

The Competition

So, after four day's practice, the competition starts in earnest. There are some interesting tasks. The first one run is to a peak pylon, MaCrae Peak. It consisted of soaring up to the pylon and then a pretty quick burn on down the mountain to another pylon on a ridge, the "overlook" pylon. . . not burning full on because you had to do ten 360s



Robert Bailey launching. Winners and finalists. Bailey landing. God's blessing for The Masters, from Rev. Harris. Photos Hugh Morton

(alternate ways) before landing in the meadow 900ft. below take-off. The meadow is on top of the ridge and is surrounded by trees 60ft. high, shadowing the area considerably and making the landing fairly tricky.

The meadow caught many people out including Steve Moyes, Pete Brown and Dave Rodriguez all in one particular flight. They appealed against the conditions after being disqualified, and got a re-flight. (I totally disagreed with this).

I'm being side-tracked. I had a good one, and got to the peak early, winning through to beat **Tom Haddon** and **Tom Peghini**.

Scoring

The scoring worked as follows: 10 points for a win, 9 for second, 8 for third, 7 for a DSQ.

You could be DSQ'ed for landing outside the area, for bending any part of the glider, or injury to the pilot, and boy, were the Americans keen on this. There were appeals going in consistently after every flight. It reminded me of Perry Mason. . . the Californian legal syndrome in hang gliding — crazy!! (It's not cricket!).

You got two-thirds of a point for a clean landing

in the landing area. There was no spot, but the landing by the lake was a feat in itself. A very tight area, trees round the back which were 60-80ft. high, the lake out front, no way out — very awkward.

Second Task

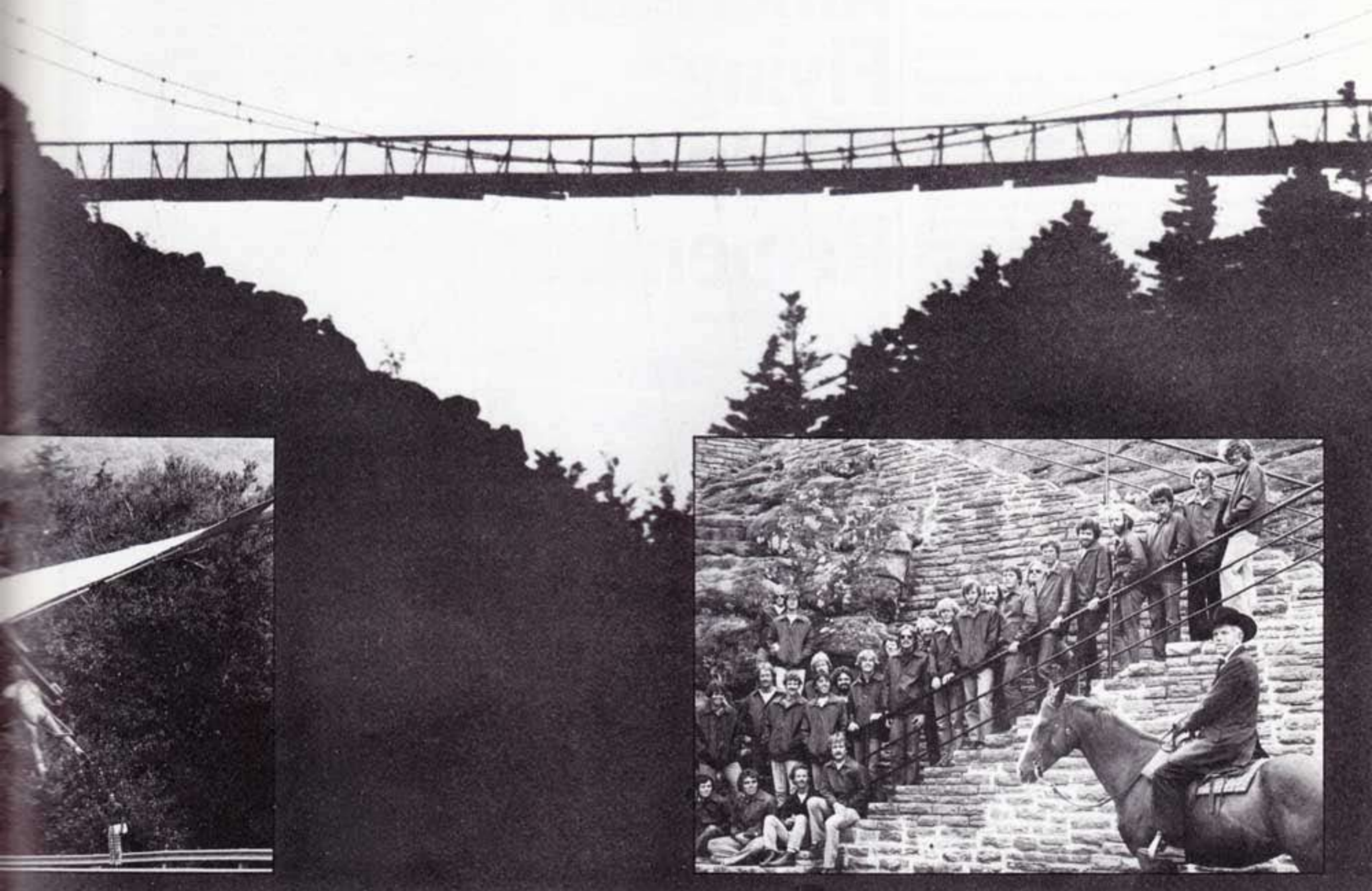
In the next heat I got **Pete Brown** and **Bruce Short**. Pete Brown on the black Mega, and Bruce on a Moyes Maxi. The task was a "speed range": minimum time from take-off to the "overlook" pylon, 500ft. down the spine, divided into maximum time to landing at the lake. The wind was very light with marginal thermals. Nobody stayed up. The "dummies" went straight down the spine for a quick one to the pylons to get their 1 min 5 sec for a full burn. It was a pretty quick glide. . . Looks like Pete's gone for that as well as Bruce. Bruce has lost out and landed. I'm in a weak thermal on the lee side, quite a choppy one. Climbing in one half, dropping in the other corner, Pete sinks out, catches it, I lost it, and now it looks like Pete's got me. . . Second place, come in, glide over the water, get a good clean landing on the pad by the lake. Two thirds of a point. These two thirds were very precious. It was all very close, a real ding-dong for four days. Finally, the meet was cut to nine pilots for the final days, Saturday and Sunday.

We'd had ten rounds, and the finalists were **R. Bailey**, **P. Brown**, **T. Haddon**, **M. Arrambide**, **D.**

Rodriguez, **S. Moyes**, **R. Grigsby**, **J. Burnett**, **J. Greblo**.

Final day — Saturday dawns. It's blue again. Very, very humid, as it has been all the competition. Temperatures up to 95°. Cu-nims most afternoons, but getting some good flying in before them. My first heat — I'm off first with Brown behind and then Greblo. It's a McCrae peak "pylons" task. Take-off, hard over right, and work every bit of available lift to get to the peak. I pass the peak pylon, but the marshal's not waving. "Don't believe it", I shout to him, circle round, pass again, he still doesn't wave — what the hell's happening here?!? Third time lucky. I've got it, but Greblo and Brown have caught me by messing around to get the pylons. I'm cutting it too fine, he's not flagging me. I learn later that the marshal has tightened the strings on his pylon, and is getting a slightly different angle. (I've passed the pylon lower before in the week and been flagged). I've really blown it this time. . . I get a third place. . . What a way to start a final! Got to put it behind me and get out and fly.

Next round is an easy one — I've got **Moyes** and **Burnett**. Jeff flies the **Speediving Sensor**, which won the American manufacturers' League. Task was the climb to McCrae peak again, and then the two mile burn to the overlook pylon. The ten 360 requirement was in effect, landings to be made at the lake.



I'm off first (again!), Moyes behind, Burnett last. I've got to hang back near the ridge to work up height. There's a gap to cross, a 300ft. chasm before you can get on the main face to work the height needed to get the McCrae pylon. I'm working this lift. Moyes is just below and working with me. If he just sticks close he's got me. He's taken off 20 seconds later and is almost up to me now — (he's good, is this kid!). Get across the gap — it's Moyes and myself and he's following me. . . he knows if he just keeps behind me, he's beaten me for speed. Burnett has blown it, he's going down; hacking round, can't get it together. He can't find the lift. Get there fast, but Moyes pips me for speed — second place. That's not too bad. . . nine points and a two-thirds for landing.

Sunday — Second day of the finals

I was lying in second position, just a couple of points behind the leader M. Arrambide. The first round of the morning was against Arrambide and Tom Haddon. Arrambide has a bad landing. It's a DSQ, he's twisted his ankle on his stirrup. I get a second place, Tom a third. Puts Mike out of the meet for good.

Protests: The 'final' final day

There was quite a storm building up with a few protests going in. I say a few, six or seven, pilots were protesting against other pilots. The Moyes, Brown, Rodriguez appeal goes through and they

get a re-flight (Oh wow — that's the one. . .).

To smooth things over the officials say — let's fly Monday as well to even things out. The pilots go along with that.

Monday — Third day of the finals

Everything goes good, coming into the final flight got myself in the lead. Final flight is against Moyes and Burnett. Climb to the peak then down to the overlook. I've had seventeen good landings out of seventeen in the very very tight landing areas. The eighteenth landing lets me down! I come in, usual approach, over the golf course, working off height easy, slide it in across the road, crab it in, bring it round 45° into wind and get set to land it.

As I come over the road I get popped up in a gust of lift, off the road — it's always been sink round here before, and this one time it's lifting. I'm going across the landing area heading out towards the landing area heading out towards the lake. . . I shout "Oh No!". The landing judges are racing all over the place. I have to do a tight turn to keep myself from flying out into the lake and then make a tail wind landing which proves all a bit tight and difficult. . . the wing's low as I swing it round and I make a bad one, come in a bit quick bending the upright — DSQ'ed. From first to fifth place in one rather tragic moment!!

Still. . . next time, next time. That must be the most expensive upright in the business. There's

5,000 dollars spread between Steve Moyes (1st) \$2500; Pete Brown (2nd) \$1500; Rich Grigsby (3rd) \$1000. No-one else got prize money, but the positions were: Tom Haddon (4th); Robert Bailey (5th); Rodriguez (6th); Greblo (7th); Burnett (8th); Arrambide (9th).

It was a good competition, marred by some petty niggling. The pilots were to blame as much as anybody — too many protests. . . Memories for me were: getting my Raven on the second day; some fabulous views over the back on getting high; flying in shorts and pumps in 90° temp; very high humidity.

During one flight in my shorts (speed to a pylon and then duration, with no time limit on the duration) I was up to 6,000ft. flying on the sunny side of the clouds to keep warm and working away at the side of the clouds. I was up there till nightfall, when a thunder storm came down the valey. I had to re-fly the next day.

The Barbecue with the Blue-Grass Band, super music for a "hoe-down" in the evening. Most of all, the fantastic people and the warm friendly southern atmosphere. (Southern hospitality is really good!). Definitely a meet I want to get back to next year. It would be even better with three or four British pilots and a manager to co-ordinate everything and bring back the Masters title — not to mention the cash prizes!

This year, I found that I had a unique opportunity to take about 6 weeks' break from work, which I felt I would put to good use - by going on a hang gliding trip of all things! As I have relatives in Vancouver, and there were competition slots available at the Grouse Mountain Competition, I felt this would present an ideal introduction to a holiday in Canada and the U.S., where I have wanted to fly for a long time.

Canada

Bob Bailey has already written about Grouse so suffice it to say I enjoyed the chance to fly in my first international competition. The conditions at Grouse are very demanding, with thermals that cling tenaciously to the very tall pine trees that cover the 3,000 ft. face of the magnificent mountain, requiring some very tight thermalling techniques to work them. With scores of other very aggressive competitions, it was like playing 'galactic invaders' only without the video screen being in the way. After the contest was over, a few days free flying followed, and in the more relaxed conditions I managed to get over the top of the mountain several times. The view of Vancouver out front and the mountain ranges behind provided some of the most spectacular hang gliding scenery I have ever encountered.

Prior to the competition, I had gone free flying with John Fennel at a local site 40 miles away, Mt. Agassiz, a 2,000 ft. mountain bordered on 2 sides by narrow lakes and islands. There was good thermal activity, enabling 2,000 ft. gains over take-off from where you could roam over the lakes and forests. As this was my first flying in Canada I was amazed at the beauty and scale of the countryside, an impression that remained with me wherever I went.

Whilst I was at a fly-in at Salt Spring Island, during the weekend after Grouse, I ran into Barry Bateman, an ex-Hiway employee, who had emigrated to Ontario and subsequently to Vancouver. He was flying a Superscorpion. Barry was also travelling around, driving a Ford Econoline Van, and we decided to spend a few days in the Vernon area, about 200 miles by road inland from Vancouver. Vernon is a medium sized town in central British Columbia, and is situated within easy driving distance of at least 15 very good sites offering enormous thermal and XC potential. It was at some of these I had some of my best flying ever.

Vernon

10 miles east of Vernon is a small town overlooked by an 800 ft. hill, called Lumby. This is the home of the 'Lumby Air Force', one of the most enthusiastic and way-out group of pilots I have ever come across. The hill is not easy to use, but I was fortunate enough to have a 4,500 ft. height gain from here. The size of the cloud developing above deterred me from going another 1,000 ft. into cloudbase so I flew towards another ridge on the other side of town for about half an hour. There was no wind that day so one could cruise around in any direction working thermals which were very strong, and full of debris, newspapers, dust and smells of smoke and rubbish tips etc. (a bit similar to Merthyr, really). This is where Tom Price, Randy Rouck and Larry Groome are developing the ASG 23, probably the most unusual flexwing I have ever seen. It features tapered carbon fibre leading edges, about 130° nose angle at the centre, held by a welded aluminium retainer, the booms adopt a gentle curve held by a fairly high sail tension. The control frame is supported from these by two struts, and by fore-aft rigging wires only. There is no other structure apart from the floating keel - which slides from side to side within a horizontal keel pocket. The glider was conceived well before the U.P. Comet and weighs in at around 55 lbs. I only saw it fly once - it looked very nice to

North American Flying - A Trip to Remember

by Mike Robertson



handle and performed well. By now it should be in limited production, and will be a unique contrast within the flexwing scene, which looks like being dominated next year by Comet derivatives.

The one week stay turned into a 2 week one as we were not limited by any real deadlines. Every day was flyable. The countryside resembled southern France, with a similar flying environment. Hang gliding there is a different sport, really, compared to U.K. As no top landings exist anywhere drivers are a vital necessity, as are 4 wheel trucks or beaten up vans. The rides to the top of the sites tend to be more of an adventure than some of the flights that ensue. Many sites are 'locked', i.e. the landowners lock the access road gates and supply the key to the local club and it is jealously guarded. As a result it is not just a case of rolling up to the site, rigging the glider and flying. At weekends, the pilots usually meet at some parking lot, cafe, or landing area and long discussions ensue as to who will fly or drive or provide transport. Drivers, being worth their weight in gold, are solicited from the road or nearest town in the form of hitch-hikers or interested punters (whuffos as they are termed over there, the name

derived from the phrase "whu fo you gonna do with those things?"). Incidentally, the questions asked are the same everywhere, but at least the launch sites are usually fairly remote so most questions tend to arrive in the landing areas, often when you have just missed a thermal on take-off and landed prematurely when others are skying out because they know the sites better. "Why have you just landed when the others are still flying real high?" was particularly irritating, though I did not have to suffer this one too often.

Thermalling

Launch time was critical and each site would have its own thermal producing whims. These would have to be learned by watching intently as the locals would wait for thermals to cycle up the hill, indicated by swaying trees and bushes and streamers placed judiciously in front of the ramps about 20 yards down the slope to indicate an upcoming thermal. Usually thermals would be really small, and required instant circling on take-off, otherwise you would fall straight out of them. Usable thermals were pretty rare at most sites.

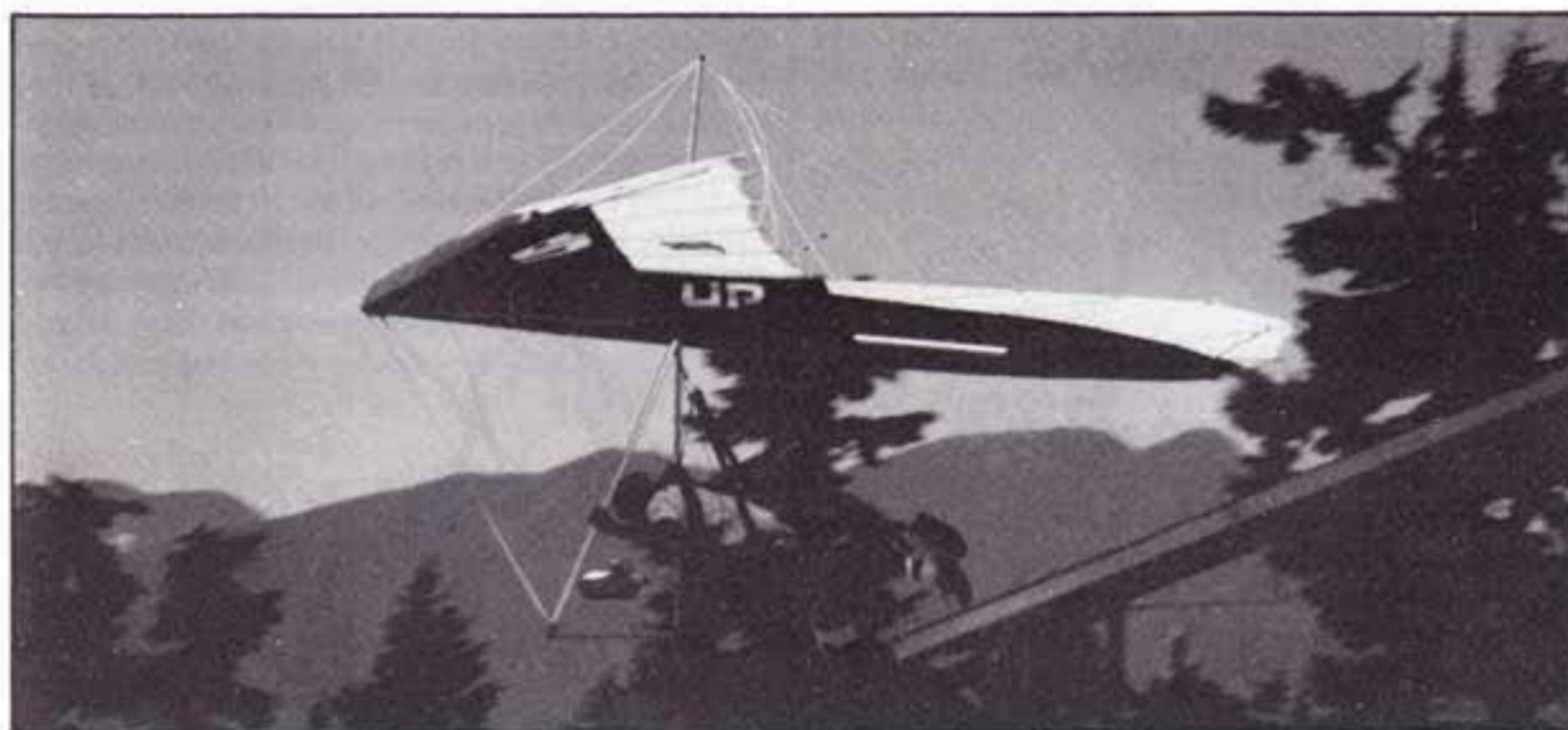
Frequently the launch point would have tall trees close on either side so a 360° straight after t/o would take you uncomfortably close to them the first few times. All this combined to make the flying very challenging and after a few outings I soon learnt to observe very carefully all the signs whilst rigging the glider. Incidentally the choice of rigging area could make or break your chance of success. Too far back from launch would mean that you could miss the midday "thermal window" - if it did not last long enough for everyone to launch. Too near the ramp meant that you would feel obliged to go as soon as the first cycles started to develop.

The locals were, with good reason, very fussy where they set up their gliders and which cycles they would launch into, because failing to use the first thermal would mean the end of your flying for that day. On the other hand, a decision to go cross country was easier because you would only have one flight that day anyway so it might as well be a good one. The Vernon area, and Mt. Swansea near Invermere, another area still further inland, are excellent XC areas as the roads and fields are plentiful in the interlocking valley systems that lie between the mountain ranges. In the event I made a few 'excursions' but the air was somewhat stable most of the time I was there. With very light winds aloft it was quite difficult to reach thermal sources having left the initial one, and a lot of height would be lost in the process. My longest flight in the Vernon area was 13 miles in still wind conditions from a site known as Stony Creek, whilst attempting to make the 20 miles back to Vernon. The thermals would not form at all over the valleys but were found only over the hill and mountain ranges - necessitating a 'stepping stone' technique to cover any distance. A local pilot had recently covered about 30 miles this way and I have no doubt longer distances will soon follow, as the pilots in this area are as good as I have seen anywhere. I had a very hard time keeping up with them, despite their very helpful advice and the copious site information that they were prepared to divulge. This was generally the case wherever I went, and as a result learnt a great deal about flying new sites, especially about nil wind thermalling. This I feel is a science in itself, bearing little resemblance to thermalling with a comfortable reservoir of ridgelift to accommodate any mistakes, especially when it involves scraping close to trees, cliffs and rock faces. The sink around such thermals is always severe, and because there is no ridgelift, 1,000 ft. down is not uncommon for several seconds.

In the event, Barry and I spent over two weeks in the Vernon area, and we went flying most days. When we didn't the lakes around Vernon would



Below: Rich Grigsby's Comet. Rob Kell's Raven. Photos Mike Robertson.



provide excellent windsurfing potential, which enabled us to progress to a sort of P.1 stage I would guess, by trial and error.

California

I had decided to spend 2 weeks in Southern California before returning home. Arriving at L.A. airport on late Friday afternoon, I found that the Customs office was closed all weekend! It took about 2½ hours of hassle to persuade a customs officer from a different airline office to clear the glider, and I felt lucky to have got it even so. I drove straight out to Crestline, near San Bernardino, where the Southern California regionals

were under way. Crestline is about 3,500 ft. above the San Fernando Valley floor and all the smog-laden air from L.A. spills over the top of the mountain range, creating a permanent 20-25 mph wind blowing on take-off. The smog is frequently so bad that you cannot see the landing area or the rest of the valley for that matter, despite the cloudless sky.

The competition was a very good opportunity to see how far pilot glider performances had progressed, though for the most part the tasks were rather impossible looking speed runs (which most pilots nevertheless completed). The flying at Crestline is excellent and the thermals were as strong as I had ever experienced, enabling me on one occa-

sion to have a straight 5,000 ft. height gain from about 300 ft. above the landing area in one thermal. This took me well above the top of the range where Keith Cockroft was skying out on his Vulcan, relaxing after several days' competition against Eric Raymond, when they were both flying modified Fledges. We were well above the inversion layer and the view over the back was spectacular, though very inhospitable, being desert mountain ranges and dry valleys. Also here were Dave and Sue Perrin from Brighton, on the final stage of their North American holiday, Dave having some excellent flying on his Sigma IIs, which looked much nicer to fly than the similar looking U.P. Mosquitoes which I saw at several sites en route.

After the competition finished I drove to Carpinteria, near Santa Barbara with Tom Peghiny, whom I stayed with for 2 days. I saw the Seagull factory, though it was just closing down for a while to enable re-financing of the company and to effect a possible merger with Seedwings, manufacturer of the very successful Sensor 210. It seems likely that the new company will manufacture the Sensor 510, an internal crossbar derivative of the 210, which has been designed by Bob Trampeneau. The 510 looked like a very promising design.

I flew tLa Cumbre Peak overlooking Santa Barbara, which is an interesting site as you have to clear a rocky spine only slightly lower than launch, but about ¼ mile out in front, to reach the landing area. I was really nervous before I flew, that I would not clear it, as the others had Sensors with a better glide than my Atlas. In the event I cleared it easily by working thermals on the way, and had an excellent flight, landing in a building lot in Santa Barbara.

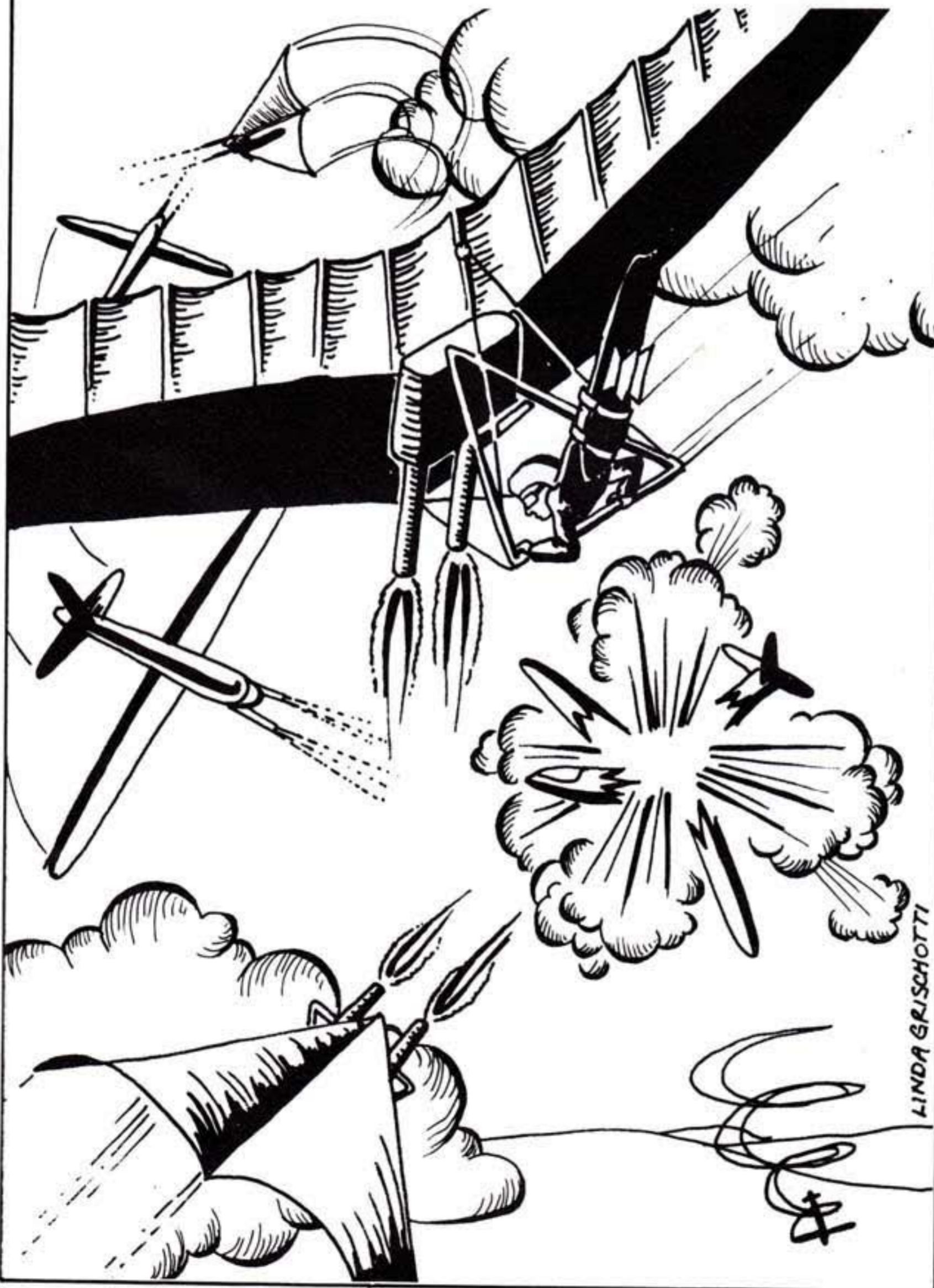
I went from here to fly a site near Ventura called Topa Topa, a very dramatic site with canyons and spines descending 3,000 ft. to the valley floor with the main landing site 6½ miles from launch. The thermals here would only form up the spines and were very rough, but the climb rates within them were staggering, at least 1,500 ft.p.m. up at times with similar sink around them. After losing it in a canyon the first day I managed to sky out the second day and hung on in the thermals for about 2 hours before landing in a football field in the local town. The experience of landing in the tiny emergency landing area the first day provided a strong motive to thermal up on the second day to reach the proper landing area.

Finally I spent 4 days at Elsinore, and flew the 'E', notorious for its unpredictable soaring window. Probably the most difficult place to soar reliably that I have visited, I did succeed once in climbing 4,200 ft. over the top to roam over the lake and mountains for about 2 hrs. (which was just as well because I went down on the other 3 days). Keith and I windsurfed on Lake Elsinore on Eric Raymond's windsurfer until we left for L.A. airport to fly back to England on separate flights. My glider travelled back with Keith's 'collection' of gliders from the Owens Valley. Flying back in the DC10, the turbulence was severe enough to disrupt the in-flight showing of 'Fawlty Towers' re-runs would you believe, somewhere over Greenland (it seems things are the same wherever you fly!).

Thus ended a very enjoyable flying trip, the best I have had by far. This was largely due to the friendliness and hospitality of the pilots, and friends whom I met, a characteristic which seems to be the rule in North America generally. Perhaps this account will give some insight to those intending to fly there in the future, in a way that competition reports cannot, as they reflect the atmosphere of specific events, rather than the characteristics and problems of recreational flying in an environment bearing little resemblance to that of the United Kingdom.

Brothers in Law 6;

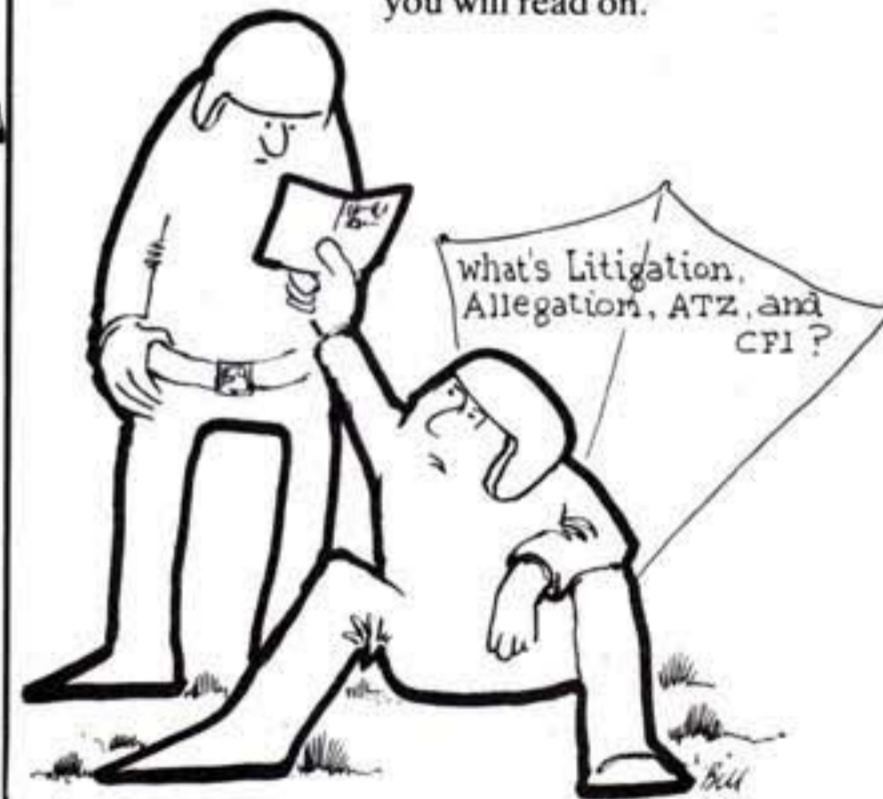
The Empire Strikes Back



LINDA GRISCHOTTI

By Lionel Alexander
British Gliding Association
Executive Member

One of the functions of the British Gliding Association ("BGA") is to advise its members on problems that concern them. So, a couple of years ago, a number of our clubs wanted to know what the legal and planning position was when a hang gliding club (or just individual hang glider pilots) started operating outside the perimeter, or for that matter inside the perimeter, of a gliding club's site. It was as if a Solicitor had been asked by one of his clients to explain the law about branches of a tree growing in a neighbour's garden but overhanging the client's. In such a case, the solicitor would give a balanced and honest opinion, paying attention, of course, to his client's interests. And any decent solicitor would point out to his client the dangers and expense of litigation. With all this in mind, I wrote an article for 'Sailplane & Gliding'. I confess to being a little surprised to read in April 1980 *Wings!* that the article was about "legal and public opinion weapons to drive hang gliders away", and the allegation (presumably about the same article) of "evasions, half-truths and even downright lies about ATZs and "rules of the air" . . ." I was even more disturbed by the tone of the articles that followed under the same title as this one (but by different authors). I shall come to my reasons later; but the main purpose I have in writing now is to redress the balance somewhat and to remind us all of the "brothers" part of the title. I hope, therefore, that before you dismiss me as another dishonest lawyer with an axe to grind, you will read on.



The Law

I have several points to make.

I have already foreshadowed the first one, which is that we are all subject to the law, and have to operate within it. That is why an understanding of Rule 34, among other things, is essential to any organized aeronautical activity. It has, of course, been amended, so that it is no longer true to say, as I did when I wrote the article, that it is forbidden to enter without permission the ATZ of an uncontrolled aerodrome. And, indeed, soon after the amendment, I published a summary of the new Rule in 'Sailplane and Gliding', with the same prominence as before. But let no one run away with the idea that such an ATZ is now a free for all, and we still need to understand the Rule. If I cheerfully blunder into the ATZ of an aerodrome used for general aviation with my glider and ignore the local rules, I shall deservedly get into serious trouble, and will cut very little ice with the magistrates if I argue being free to unroll his hang glider from the top of his car and take off and fly is terrifying. It may not be like that at all, but I do ask for sympathy and understanding on your part, together with (a) a major effort to tackle this question of self-discipline and

that the air is free for all. So, if the CFI of a gliding club tells you what he thinks the law is, he may be right or wrong. If he is wrong, see that you are well informed and put him right, but do not, I beg you, shrug off his reliance on the law as being evidence of malevolence.

Freedom for all

Secondly, glider pilots in general, and the BGA in particular, are committed to the principle that the air is for all to enjoy, provided that this can be done safely. We have been in the business of sporting aviation long enough for our record in this respect to be beyond challenge.

Thirdly, the BGA has existed for 50 years. During that time, we have won for gliding in Britain a degree of freedom unmatched anywhere else in the world. Your President, Ann Welch, I may add, has more than a little to do with this happy state of affairs. We have done this by unremitting hard work, coupled with careful attention to responsible attitudes at all times. Had we been irresponsible, no one would have listened to us — and, unless you too are responsible, I promise that no one will listen to you. But the main point I want to make here is that this freedom which we have won for ourselves, also benefits you. I remind you of this truth, not because we expect gratitude, still less subservience, but because our approach to problems of conflict with other interests more powerful than ourselves (i.e. when the boot is on the other foot) has demonstrated conclusively the effectiveness of the method we have adopted. I would therefore urge any hang gliding organisation or otherwise, to make your watchwords: be well informed; safety conscious; courteous; and moderate in your demands.

Responsibility

Fourthly, the BGA is the biggest non-governmental aircraft and pilot certifying agency in the world. We have achieved this position by self-discipline. And this is where you have a special problem. Self-discipline is quite easy for us, because of the nature of gliding activities. Sites are large (and therefore expensive), and launching facilities, such as winches and towing aircraft, are either complicated, expensive, or labour-intensive, or a combination of these. This means that, for practical purposes, no one can get a glider into the air without the assistance of several other people. Consequently the local organisation can prevent a flight taking place if the pilot is incompetent or if the glider is unairworthy either on account of bad design or construction or maintenance, or is not properly insured. None of these features exist in your case. I would be ducking the issue if I did not point out that, from the point of view of a gliding CFI, accustomed as he is to being in entire control of everything that goes on on his site your sport is different. The spectacle of anyone at all

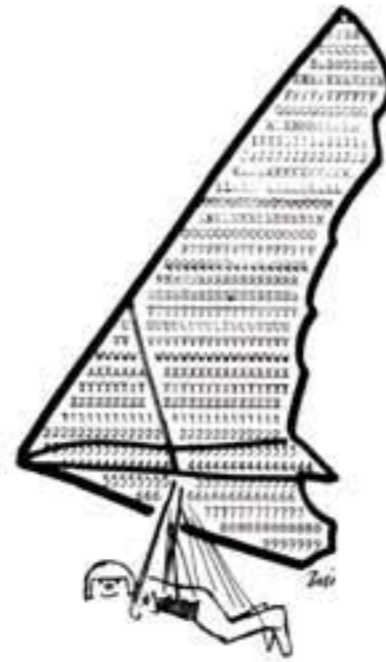
(b) a programme of education as regards those who run gliding clubs directed to showing them that your standards are comparable to those obtained in gliding.

This problem of self-discipline is recognized by other aviation sports. As regards yourselves, I make a few suggestions below. But here I want to emphasise that it is not the interpenetration of gliding and hang gliding, which alone causes problems. A gliding CFI would be just as alarmed by a parachute descending out of the blue, or large model aircraft sprouting them from the ground. And, of course, vice versa. The two sports I have just mentioned understand this very well, and, on the whole, we manage to resolve such difficulties as arise.

The problem will go away . . .

Now, I cannot deny that, in one, or perhaps two, instances, relationships have become so soured and attitudes so entrenched (though I am not apportioning blame) that there cannot be, in the foreseeable future, a happy mix of gliding and hang gliding. Nevertheless, I think, and so does the BGA, that, for all the reasons I have given, much of the general problem would go away if all pilots flying hang gliders in gliding airspace (by which I mean the gliding club's ATZ):

(a) had hang gliders which were clearly identifiable (e.g. by alpha or numerical symbols, or colouring, or both);



(b) were members of the local (BHGA) club, in which I include bona fide visitors subject, as glider pilots are, to the same disciplines as regular members;

(c) understood the local pattern and complied with it, as required by the relevant (amended) Rule of the Air;

(d) were subject to the discipline of the local hang gliding or gliding CFI or both. To illustrate what I mean, take my own case. I have been a categorised BGA instructor for some 30 years. I often take my glider to another BGA site. If I have not flown there before I fully expect to be given a site check in the

host club's trainer and, even if I have been there before, I shall not resent it if the local CFI draws my attention to local rules, or if he wants to inspect my log book to ensure that I am in sufficient current practice.

The BGA is most anxious to minimise conflict. We would like to promote meetings, both at Association level, such as are going on now, and locally. In fact, we are accustomed to this kind of dialogue. Our clubs share sites or airspace with most kinds of aeronautical interest, including commercial aviation, military aviation, general aviation, parachuting and so on. In some of the instances the respective organisation is far more powerful than we are. If you want to see what can be done, go to Shobdon, in Herefordshire, where a quite narrow and awkward airfield contains in considerable harmony a power club, a gliding club, and a parachuting club, each operating intensively; the basis of such co-operation is mutual understanding and constant discussion. "Jaw-jaw", as Sir Winston once remarked, "is better than 'War-war'."

Up the creek

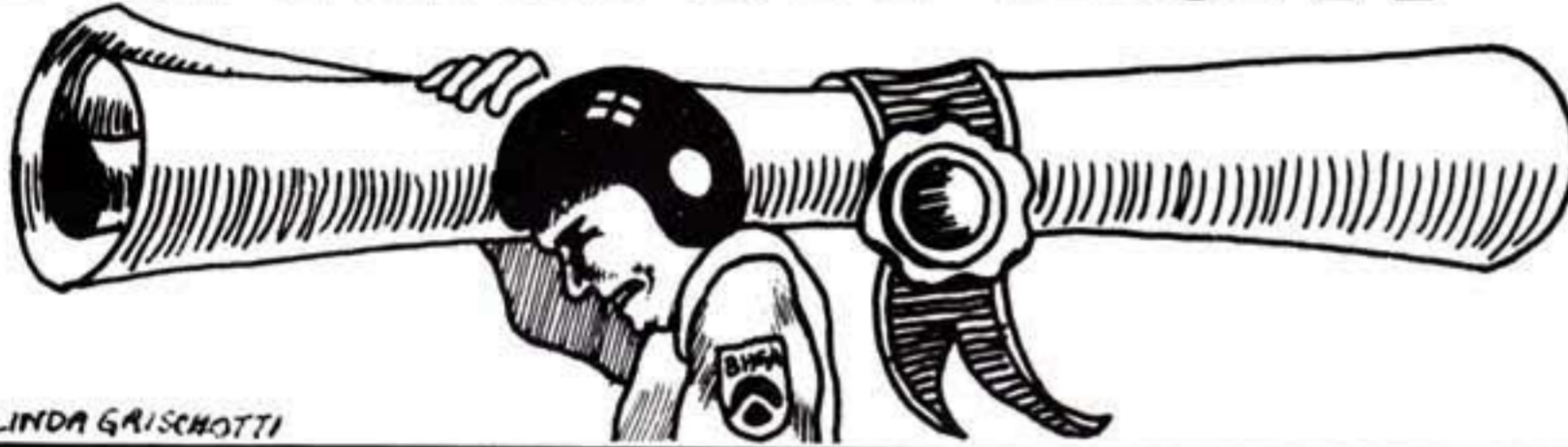
This is where I am afraid I provoke cries of "nanny", but I think it worth the trouble, for the reason I give at the end. Our contributors to 'S & G', especially those carrying some official clout, are always careful to use moderate language, even on subjects on which they feel strongly. I don't suppose that the editor would publish anything that fell short of this standard, even in the correspondence columns, where the opinions are of those of the signatories and no one else. For one thing, she (the Editor), faced with an allegation (April Wings!) that another flying machine has been deliberately "beaten up", might be told by her legal advisers that such an allegation, amounting as it does to an accusation of dangerous flying, not to say attempted murder, constituted actionable libel. (OUR advice is different! . . . Ed. Wings!).

For another (and here I turn to the editorial and the articles in Wings! so far), extravagant language serves only to inflame glider pilots who may have spent 25 years or more and much money in setting up a successful operation, and who see in such articles precisely that degree of irresponsibility that they fear may lead to accidents. "So what?" you may say. "We are only repaying in their own coin arrogant and abusive dogs in the manger". Maybe. But the result of all this self-indulgence might well be that the exchange of abuse will come to the notice of the CAA, or, worse, to the notice of interests which have no love for any form of sporting aviation. Then the cry might well go up "A plague on both your houses". Then we might both be legislated out of existence (it nearly happened with hang gliding not so long ago). And then where shall we all be? I will tell you, brothers.

Up the creek.



Hang Gliders, Airspace and Aviation Law



LINDA GRISCHOTTI

An amateur's introduction -
by Ian Trotter

In the "plummeting" days of the mid-seventies, when a soaring flight was an occasion for celebration, it was probably reasonable for hang glider pilots not to know, or care, about airspace legislation. In the eighties, with height gains of 6000ft. and more, and cross-countries of seventy miles, many being terminated by the sea, this attitude is no longer tenable. This article is an attempt to present, in simple language, those parts of aviation law which are specifically relevant to hang gliding. While it does not conflict with Paul Bridges' or Mike Caston's earlier articles in *Wings!*, it may well conflict with matter appearing in SSA publications. Knowledge is increasing, as are contacts with controllers and other CAA personnel, and later articles are therefore more accurate. This piece has been checked out by NATS and amended in the light of their comments.

Aviation law is surprisingly permissive in many areas, and is relatively recent. Before the last war there was little control, other than following line features holding them on the left. Pilots are treated as responsible individuals, exercising mature judgement and in control of their own aircraft. The moral is clear: if we as hang glider pilots are to retain the privilege of controlling our own sport through the BHGA, instead of being controlled directly by the CAA, we must act responsibly and display judgement and airmanship. It is up to us to demonstrate that we deserve our privileges by, among others, learning about airspace and conforming to the regulations.

As far as I know, the law refers simply to "gliders" and therefore treats cockpit gliders and hang gliders identically. There are obvious practical differences in performance and equipment, particularly in respect of blind-flying instruments and radio, but these are not, at least at present, reflected in legislation.

There is to my knowledge no evidence of any desire on the part of the authorities to restrict us and ample evidence of a desire to help. The negotiations on Campsie have been very helpful. Congleton Cloud, in the Peak District, can be flown by hang gliders only because a chunk of airspace was deliberately de-controlled to allow it.

Anyone who has any intention of leaving the ridge should educate himself (I can't do it for you!) on airspace and law. On many sites safe flight *even on the ridge* requires a similar knowledge.

Start by obtaining, preferably as personal property, failing that, for your club, *both* the Air Charts, at 1:500,000 and 1:250,000 scales. Without both you cannot obtain a full picture of controlled airspace. Also obtain CAP 85 "Aviation law for applicants for the PPL". The following are also very helpful: "Laws and Rules for glider pilots" (BGA); Pilot and Observer Handbooks (BHGA); *Wings!* October '78 (Paul Bridges); *Wings!* September '79 (Mike Caston). Study CAP 85, re-write it if you find it helps, discuss it and argue about it. What follows here results from just such a process. Simplification is liable to cause distortion, so do the same thing for yourself!

Airspace for our purposes can be simplified into four categories:

1. Stay out, period.
2. Enter only with prior permission, adhering to any conditions attached to that permission.
3. Enter without permission but adhering to certain conditions.
4. Uncontrolled airspace. Uncontrolled does *not* mean that you can do whatever you like.

Geography apart; flight by any aircraft falls under either VFR (Visual Flight Rules) or IFR (Instrument Flight Rules). VFR essentially means that conditions, in the widest possible sense, permit the pilot to fly safely visually. IFR implies either that meteorological conditions prevent visual flight, or that traffic density is sufficient to make visual separation inadequate.

A sub-division of VFR is "Special VFR", a formula which allows air traffic controllers to permit aircraft not equipped for IFR, or pilots not so rated, to fly in Control Zones where IFR would normally be required.

Corresponding to these rules are two sets of meteorological conditions: VMC (Visual Met Conditions) which are sufficiently good to permit VFR flight, and IMC (Instrument Met Conditions) which are not.

The trick is to know what kind of airspace you're in, or contemplating entering, and to match that to

meteorological conditions. We'll deal with the Met. first.

Have a look at CAP 85, page 1, "Conditions for VFR flight". Its style of necessity, is similar to that of an insurance policy or any other legal document, but it is possible to simplify it. Forget helicopters, forget night flying, forget passengers (if you're planning dual, work it out yourself), and forget airspeeds in excess of 140 knots. As a systems analyst, I find it easier to express it in flowchart form:

Spelling out the flowchart, if you are not in controlled airspace (of any kind), if you are at or below 3000ft. amsl, then you can fly VFR provided that you maintain visibility of 1 nautical mile and stay clear of cloud and in sight of the surface.

If you are in controlled airspace which has not been notified as subject to IFR, *OR* if you are in uncontrolled airspace above 3000ft. amsl, then you are VFR provided you are capable of maintaining visibility of 5 nautical miles, 1 nm horizontally away from cloud and 1000ft. vertically away from cloud. This definition of VMC is commonly abbreviated to "5/1/1". Note the distinction between "capable" of 5/1/1 and "must" keep 1/clear/sight. This illustrates the willingness to treat the pilot as a responsible decision-making individual. Fudge it too much, prove you're irresponsible, and we're *all* liable to find ourselves much more restricted, quite apart from the dangerous situation you may cause.

In controlled airspace which *has been notified as subject to IFR, you may, at the discretion of the controller, be granted Special VFR clearance, in which case you must conform to the conditions laid down when clearance is given. Similar local arrangements, not technically Special VFR, may also be made for sites such as Hillend which lies within Edinburgh Airport Special Rules Zone. Clearances such as these are a privilege and should not be abused. Don't assume blanket clearance and do request clearance every time. If you turn up independently of anyone already there, get your own clearance.*

If you're not VFR or Special VFR, then you're IFR. It might be thought that hang gliders could not possibly fly IFR. In controlled airspace, you'd be right, for that requires blind-flying instruments and a rating to go with them, radio (two-way) and positive clearance from ATC. IFR by hang gliders in controlled airspace is not on.

Outside controlled airspace there are rules for obstacle clearance (1000ft. above the highest obstacle within 5 nm unless taking off or landing) and cruising levels. Cockpit gliders can probably select a level according to track but I doubt very much whether hang gliders can. It is arguable that a hang glider does not cruise; it either climbs or sinks.

What IFR for hang gliders in uncontrolled airspace comes down to, I believe, in practical terms, is that you can approach closer than 1000ft. vertically to cumulus, or indeed enter. The question of control and disorientation in cloud is a different matter. In this situation, visual avoidance is impossible, as is radar separation, since you're not in contact. This is an obvious potential danger, and illustrates the fact that air law does not attempt to cover every situation, relying instead on common sense and airmanship. "Laws and Rules for Glider Pilots" refers in this connection to "random separation", which might come as a surprise to more conservative hang glider pilots.

In summary, you are VFR if you're in:-

uncontrolled airspace, at or below 3000ft. amsl, maintaining 1/clear/sight

OR uncontrolled airspace, above 3000ft. amsl, capable of 5/1/1

OR controlled airspace, not notified as IFR, capable of 5/1/1.

If cleared by ATC and adhering to conditions, heights and distances specified, you are either **Special VFR**, or under special local arrangements.

Otherwise you are IFR. Hang gliders must not fly IFR in controlled airspace.

Does all that make sense?

Let's return now to the (three-dimensional) geography of controlled airspace and refer to the Air Charts.

To make sense of the charts, some definitions are necessary. "Altitude", "elevation", "height" and "flight level" all mean much the same thing in common parlance. In aviation they have precise and different meanings:

Elevation refers to an object on the ground, typically a runway threshold, and the figure states how far this is above mean sea level (amsl).

Altitude refers to an aircraft in flight, and describes how far it is amsl. The pressure setting such that an altimeter will show altitude is known as QNH.

Height refers to an aircraft in flight and describes how far it is above a reference point on the ground, typically a runway threshold. The relevant pressure setting is known as QFE.

Flight level refers to an aircraft in flight and is the figure shown (last two digits omitted) by an altimeter at the standard pressure setting of 1013.25 mb. Flight level 245 is identical to altitude of 24500ft. amsl, provided that sea level pressure is 1013 mb.

In summary, and over-simplifying a little:

Altitude = QNH = amsl

Height = QFE = agl (above ground level).

In conventional aviation, it is more complicated. Pressure obviously can vary over an area or over time and this is provided for by using several different versions of QNH, communicating them by radio. Actual aerodrome QNH is used for T/O and landing (though QFE is also used for landing). In normal flight at low levels, lowest forecast QNH for the area is used, the country being divided into Altimeter Setting Regions for this purpose. Above Transition Altitude, usually 3,000ft. amsl though variable according to area, Flight Level (referred to 1013 mb) is used.

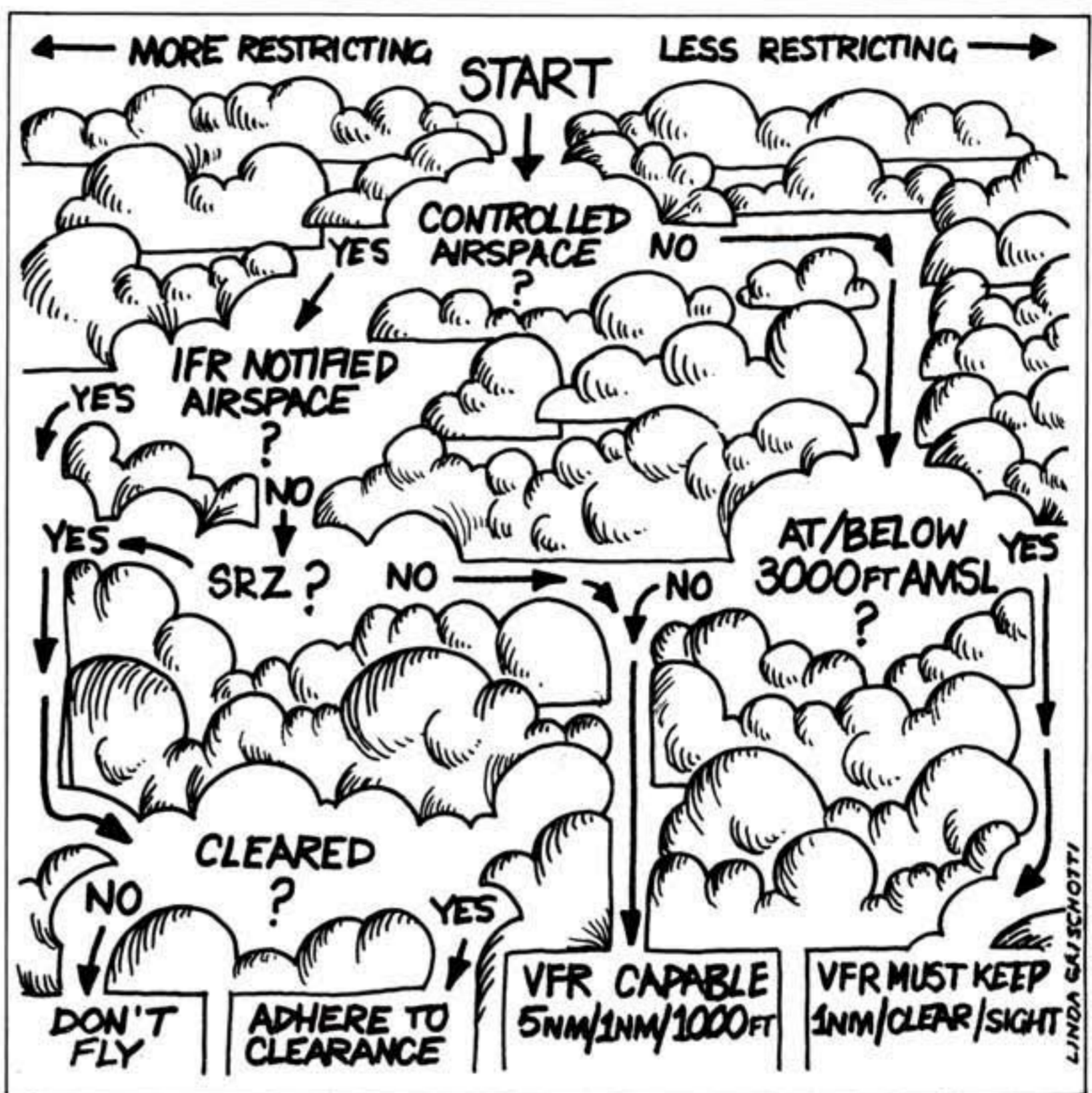
Hang glider altimeter setting procedures have been different. It is common to zero it at T/O (QFE top) or at landing (QFE bottom). This is fine for local ridge soaring, well away from controlled airspace, but far from ideal for XC. The best setting for XC is lowest forecast QNH which can be obtained by phone from an Air Traffic Control Centre or a large aerodrome. Failing that, actual QNH, obtained by discovering the elevation of t/o from an OS map and setting that, would normally be adequate.

The charts are intimidating at first. Airspace becomes a little simpler when you know that *Zones* start at the ground and *Areas* start above ground. If you remember that many aerodromes have SRZs, and Portmoak for example has an Aerodrome Traffic Zone (ATZ), you'll not get confused. Special Rules airspace, e.g. SRZs, is not strictly speaking "controlled" but it is simpler to treat it as if it were.

The half-million chart is copiously illustrated with radio navigational facilities. Ignore these, at least until the charts become less intimidating.

Let's deal firstly with the first category - **Stay out**. This applies to a remarkably small portion of the space of interest to us. Danger, Restricted and Prohibited areas are shown. Some are permanent, some notifiable, but the simplest way, losing little if anything, is to avoid them all the time. CAP85 mentions a lot more — Bird Sanctuaries, High Intensity Radio Transmission, Glider launching (!) etc. If this article were comprehensive, it would be unintelligible.

Technically I think that's all! In practice, it's a different story. Special Rules airspace theoretically



comes into my second category (**enter only with permission**) but in practice, for many bits of airspace, this wouldn't work. Scottish Special Rules Area, from 6000ft. amsl up, with the same outer boundaries as the TMA, is an obvious example. There's no way you could ask for clearance and very little prospect of it being granted. Airways, White 9 near Thornhill and Amber 1 near Galloway, carry a dispensation for "gliders" in VMC to cross at right angles in a straight line. If you reckon to fly ten nautical miles in a straight line in a hang glider, then you must have the aircraft we've all been looking for! John Hudson (*Wings!* June 1980) seems to have done it though, presumably legally, so perhaps Airways should come into my third category.

Category 2, **enter only with permission**, applies particularly to Special Rules Zones and in practice comes down to specific sites, Hillend being the best known example. If you're lucky and if conditions are good, you may get a clearance generous enough to permit XC. *Stick to it!* Don't make frivolous calls. You may well be asked to listen out for instructions, although the controllers know they can't be acknowledged except eventually by phone. A Sharps air-band radio, on board, that you can hear in flight is therefore valuable.

Category 3, **enter without permission but adhering to certain conditions**, applies essentially to Scottish TMA. Campsie I stress again is a very special case. Campsie apart, the TMA covers Tinto, Mendick, Gladhouse, etc. and the requirement is to maintain VMC. Discretion and common sense are particularly important in this area. If there's no prospect of lift to the TMA base, don't waste the controller's time. If there is, let them know in advance and be guided by their advice. Edinburgh controllers are very helpful in this respect, perhaps because they're used to dealing with oddballs like Edinburgh Flying Club, gliders at Portmoak and

Kirknewton, and parachutists at Glenrothes, not to mention Armalite rifle ricochets to 3000ft. in D511 in the Pentlands. They will normally be happy to assist and advise on Hillend, Tinto, Mendick, Gladhouse etc. Glasgow Airport is busier and less involved with sporting aviation. Don't bother them unless you have to, although you'll find them cooperative and helpful.

I do not believe non-P2 holders to be sufficiently experienced to enter TMA's.

Uncontrolled airspace is the simplest, but not necessarily the safest since, midweek, the military are liable to appear. I can't really advise on this yet, but try phoning Leuchars, Kinloss or Lossiemouth. This will in no way guarantee immunity, but it must help. Ensure that your club has notified the site you're flying to other airspace users. If a fighter pilot has not been informed of the existence of the site, you've no grounds for complaint if he shows up. Welsh hang glider pilots probably have the most experience in this area and are in regular contact with RAF Valley. Don't assume the pilot can't see a wave because he's doing x-hundred knots.

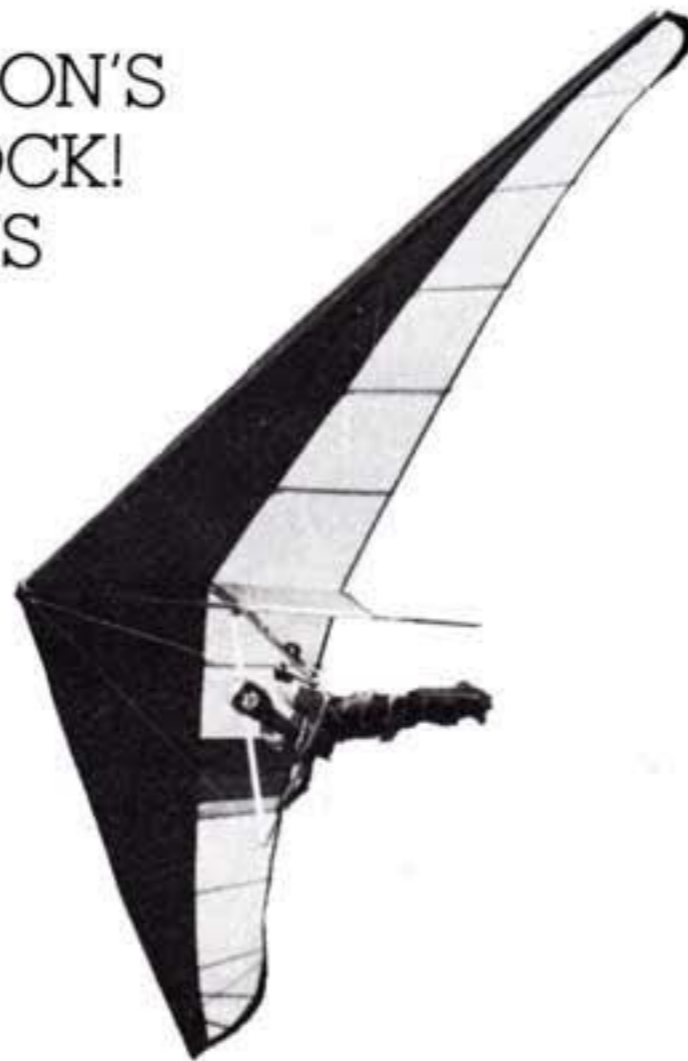
There are many other aspects of aviation law not covered here. Minimum age 16. Don't drop anything (except ballast, etc.). Test deployment of parachutes is technically illegal, though I doubt if there would be a prosecution if done in sensible circumstances. All sorts of aerodrome and light signals. Collision rules, which you should all already know. Drink. Low-flying. Aerobatics. Accidents (some of you who refuse to report might be surprised!). Read them up for yourselves in CAP 85.

Finally. An English hang glider pilot ruined an excellent XC by landing at a busy airport and three people have invited prosecution by flying Hillend without seeking clearance.

The law is so worded as to allow common sense to function. Act accordingly.

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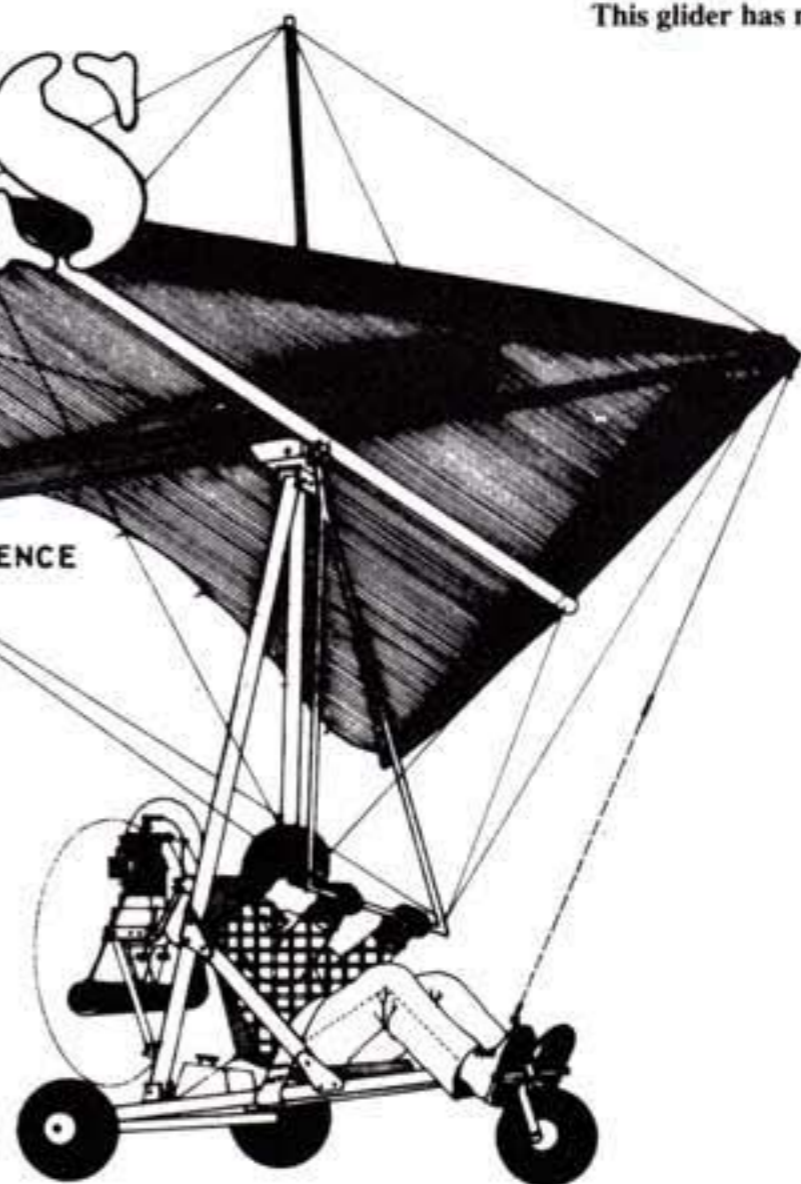


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Airspeed, what is it, is it any use?

by J.A. Hudson

Airspeed is the speed at which our gliders fly through the air. If our glider will only fly forward at a maximum speed of 25 mph and the wind is blowing towards us at 25 mph we will make no headway at all. In fact if the wind speed is so near our maximum flying speed we are unlikely to even get airborne, and will likely get blown back violently to suffer not only broken pride and glider parts, but most probably bones as well.

Experienced pilots are often able to lean against the wind and assess it with regard to their own capabilities and glider. They've had years of practice and most are right every time. However, after physically testing the wind many times I've come to the conclusion that it is next to impossible for anyone, no matter how experienced, to be accurate in their guess at the true windspeed by feel alone.

The air is alive and vibrant and has many facets. We've all had days when super light airs of 8mph give good easy soaring and others when the wind chews your bones and the lift is scratchy. It is all to do with density, and these pilots learning against the wind, arms outstretched are not just calculating the speed but subconsciously feeling its resistance and density.

If your experience is limited there is no shame in getting out a meter and measuring the wind speed before flight. If you are flying on a site where there are experienced pilots around, it is usually no problem, but many times groups of learner pilots meet together on the training hill and a windspeed indicator is a useful tool.

Ventimeters

There are two main types available - The Dwyer and the Ventimeter. The Dwyer is a very convenient little meter which is supplied in its own case and slips easily into the pocket. It has a tiny polystyrene ball which floats up inside a tapered tube and the speed indicated is read off a scale at the side. The Dwyer is a dual speed instrument and covering a hole at the top with your finger will cause the ball to read a scale of 10-50mph, whilst the other scale shows very light airs from 0-10mph.

The problem with it is accuracy. I have heard but not yet met one which gives a true windspeed. When used in winds over 15mph, they all seem to read high, i.e. a Dwyer showing 40mph is probably reading a 30mph breeze. This need not be a problem though if you are aware of it and compensate accordingly.

The Ventimeter is a more sophisticated instrument and uses a floating disc which slides up and down on a stainless steel needle in the centre of a transparent tapered tube. The speed is read off a small printed scale on the outside of the tube and the Ventimeter also incorporates a handy compass in the handle which shows wind direction. The floating disc is more stable than the polystyrene ball of Dwyer and the instrument is far more accurate.

Airspeed in flight

Airspeed is important, not for just checking whether it is flyable or not, but also during flight itself. A glider will only fly if it has sufficient air speed over the wing to cause lift. If the speed is slowed down too far the wing will stall and the glider fall rapidly until sufficient airspeed is regained. Stalling can have disastrous consequences. Gliders also realise their best potential if flown correctly in relation to their optimum airspeed. Many times one

will see a glider being flown either too slowly, which causes heavy sink on turns and is dangerous, or too quickly, which means the best minimum sink of the aircraft is not being utilised.

The best minimum sink (height lost against time) is achieved a few mph above stall speed and if you can measure your airspeed at all times you will often find performance you did not know your glider had. Very often the 'smooth pilots' we all watch and admire have nothing more than a very accurate control of their speed and rarely do you see them accelerating and decelerating across the sky.

Flying too slowly can not only kill you but the resultant 'mushes' on turns cause altitude loss and need to increase speed beyond the optimum, to regain flying speed. Very wasteful flying indeed.

Glider Pilots (our big brothers) talk continuously about "speed to fly" for optimum distances flown. "Speeds to fly" form a major section in any book about gliding and since we are following in their footsteps we should familiarise ourselves with the principles in order to learn. The subject is fairly complicated and at the moment we are right at the bottom rung of a ladder which leads to speed to fly principles being a part of our daily air time. However, the Calverts and Baileys among us frequently

use "speed to fly" principles in cross-country flying, speeding up when in good lift and slowing down as the lift weakens. Obviously if the lift is very light, flying too quickly cancels it out, whilst if the lift is strong one can afford to speed up so as to cover the greater distance in the time available.

Good speed control is essential for maintaining the best glide angle between thermals. Simply put, if you need to glide to the base of the next thermal, gliding too quickly will reduce the glide angle and although you will cover distance in a shorter time you will probably fall short and have to land. Flying too slowly may mean you reach the thermal source at a usable altitude but the time taken will probably mean the thermal has ended its life and will be useless to you. Knowing your glider, its best speed for best glide-angle and its best speed for minimum sink may mean the difference between a ten mile flight and a 50 mile one.

Airspeed indicators

The only way to tell airspeed is to measure it and there are three glider airspeed indicators (ASIs) currently available.

The first is the **Winter**, which is a neat unit made in Germany. It's made on a Venturi principle in which the air blows through a tapered tube causing suction - (the Venturi effect). The suction acts upon a diaphragm and causes a needle to deflect around a scale. See Fig. 1.

Winters are very well made and uncomplicated in use. They attach to the control frame by means of a Velcro clip. Positioned so, they are unable to indicate true air speed since the resistance caused by the effect of the pilot and glider combination alters the air pattern and prevents accurate measurement. This is basically true of all current airspeed indicators and some American pilots found they had to lower an ASI over 20ft. below the glider before they got true air speed readings.

However, this is largely immaterial as one can easily compensate for the continuous error. It would not matter a jot if your ASI was marked in Teddy Bears, Panda Bears and Polar Bears instead of mph providing you know that your best minimum sink is a Teddy Bear and your best glide speed a Panda Bear!

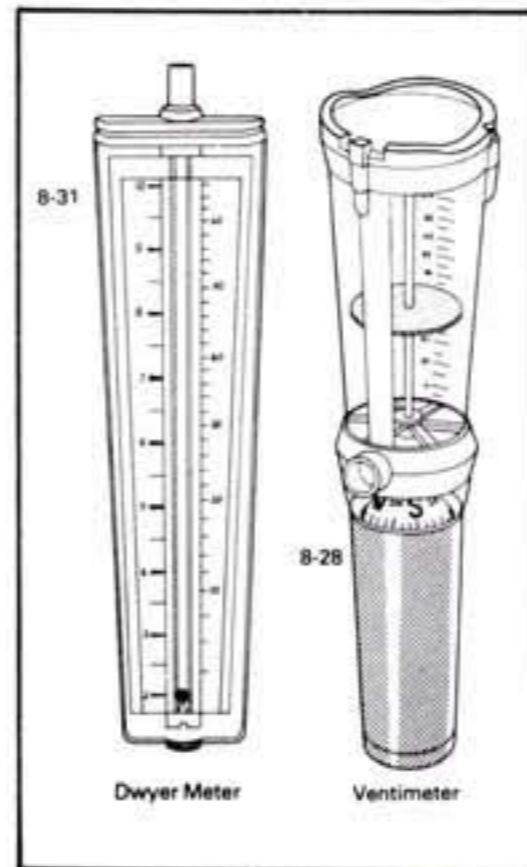
A second ASI which is also mounted on the control frame of your glider or upon an instrument stalk is the **Arbee**. This instrument uses a flow type head which measures the vortices as the air passes through it. This ASI also has a low battery warning indicator and an audio "stall warning" indicator which one may find useful.

Another ASI is the **Pedro** and this instrument seems to give more accurate readings. It uses a small fan unit which is mounted on the nose of the glider and which generates a small electrical current which in turn operates the meter needle. It seems very steady in use and owing to the position of the fan sensor gives a more accurate true airspeed than control frame mounted ones.

Both the above instruments cost over £50 but a very simple, very effective and reasonably accurate air speed indicator for your glider is the Ventimeter.

It is quite amazing to fly with a Ventimeter owing to the extreme stability of the floating disc. It gives a very good indication of your airspeed although it is limited if you slip or skid in any way. The hole into which the wind blows is fairly directional. The Ventimeter can be clipped to a simple bracket mounted on the control frame.

Air speed is important — before long I predict every pilot will want an ASI to fly with in order to get the best out of his machine. Once glider performance starts to level off every bit extra will count.



The Pedro

We live and learn, If we don't die first

by Bill Cowell

IT'LL NEVER HAPPEN TO ME, says the optimist, looking at the bad side of things, (the eternal pessimist repeats the phrase when he looks at the list of Pools winners). But it does, all too often. I've kept as a souvenir the list of competitors at Mere 1975, my first real contact with the BHGA, since when I started in the sport in late 1974 there were only a few madmen in Scotland where I then resided. Quite a few of those early birdmen are now dead, or maimed for life, or have left the game after seeing or experiencing the punishment meted out to those who broke the rules of the sky. It happened to them for all their optimism. The rule they all broke was the simplest of them all, they *lost their airspeed* — and when you stop flying, you start falling.

Last year it happened to me. I felt lift on my starboard side, turned into it and when the vario started squawking like a maniac I pushed out to grab the lift. A second later a violent thermal bubble put my starboard wing over my head, and I was heading for solid earth 70ft. below uttering that famed expression of all pilots when they know they've blown it, "Sh***"!!

I woke up in a hospital the following day with a couple of cracked ribs, a cracked jaw and a shattered left wrist the size of a York ham. The surgeon who seemed pleased to welcome me back to the land of the living frowned when I winced at the pain in my arm, and then told me that he couldn't (or wouldn't) touch it, the injury was "horrendous" and, another day later, I was transported by ambulance some 150 miles to another hospital where they had all the facilities, the best surgeons and the experience to restore the impossible to the probable.

That was 12 months ago, but despite a total of three months in hospitals, four operations and five months — so far — with another three months, forecast, in plaster, I still haven't recovered the use of my left arm. The biceps and forearm have withered, the fingers only twitch spasmodically, and with the Scaphoid and Lunate bones excised and an Arthrodesis operation using a bone graft from my right hip all having failed to restore its use, I'm now reconciled to have only one arm for the rest of my days.

It's not funny being unable to cut up your meat at mealtimes, being unable to tie your own shoe laces or lift anything heavier than a couple of stone. It's bloody expensive having to buy an automatic car because you can't change gear, and also having to have a "Capstan" type steering installed. It's infuriating having to stand and watch others fly, to be unable to take part in all the other activities like shooting (I used to be a Champion shot), to be dependent on others to wash your right arm, to see your career and whole future employability vanish into thin air, and to be unable to do the thousand and one things that demand the use of two hands — and which we take so much for granted — all for a moment's lapse, for forgetting the golden rule, speed is safety.

Insurance? Sure, I was insured, but trying to get the insurance to pay up is like trying to get blood from a stone. They are "considering the case" — require the latest medical report — awaiting further advice — and similar bull. They'll take your money like a shot, but unless you actually kill yourself they'll squirm like an eel to avoid paying you a cent of it back again — so unless you are concerned about your heirs and successors do yourself a favour and forget insurance friends. I've lived and learned two bitter lessons.

Benefit from my experience, it CAN happen to you!!

Lester Cruse wins South Downs Championships

report by Jeannie Knight



Photo Mark Junak

The South Downs Hang Gliding Championship, held at the end of September, was blessed with good weather for the second year. Devil's Dyke was once again the base for the final day and some interesting timed runs and soaring tasks brought out a high standard of flying. There were some international competitors, with Gunner Astrand from Sweden, Steve Blenkinsop and Paul Murdoch from Australia, all putting in a strong contending run for the overall title. Flyers were competing for the Steyning Bowl Trophy — an exquisite piece of glass engraved with a hang gliding scene at Steyning Bowl — which had been awarded as an annual trophy by landowner Michael Langmead. **Lester Cruse** was back on form to take the overall title with a narrow margin over fellow-League pilot **Peter Harvey**, **Johnny Carr** settling for third place overall. The result might have been much different if Swede **Gunner Astrand** had not had to miss out on a soaring task on the second day. His friend severely injured an eye whilst unfastening a rubber bungee from his car roof — the metal hook flew back and embedded itself in his eye. Gunner had to accompany him to Brighton Eye Hospital, where he was detained for treatment. Until that point Gunner had been well in the lead, and still finished in seventh place despite the complete loss of one task. He didn't go home empty handed, however, for he was awarded **The Sussex College Bowl**, for the best spot landing throughout the event.

The first day had got off to a slow start with difficult conditions at Mill Hill, that steadily deteriorated. The advanced pilots completed one task and the intermediates were unable to fly. The second day brought a light northerly wind that enabled organisers **Graham Slater**, **Jeannie and Tom Knight** and **Johnny Carr** to arrange a top to bottom task for both advanced and intermediates at the Dyke. It was based on the task at Mere, where pilots were timed and had to cross lines as many

times as possible before landing on a spot. By the end of the task, the wind had picked up sufficiently for the advanced pilots to complete two soaring tasks and the intermediates finished three more.

A timed run along the ridge towards Truleigh caught out a number of advanced competitors, who failed to make it back to the proper landing area. **Peter Harvey** scored a maximum 100 points in this particular task and **Nigel Warder** scored 85.53 which improved his overall position. The final advanced task was possibly the highlight of the event. Competitors had to pass round a marker at the far end of the ridge, reach another on the opposite end and, before landing on a spot on top in the fastest time possible. There were some pilots like **Kelvin Wilson** who hit such scratchy conditions that they had to scrape around along the ridge before gaining enough height to top land. Kelvin's time of 6 mins. 56 secs. when compared with **Lester Cruse's** winning time of 2 mins. 51 secs. illustrates the difficulty. No-one actually got back on the spot during the task, although **Johnny Carr's** enthusiasm for this particular task led him to demonstrate his Fledge's ability to score a bullseye several consecutive times after he had completed his competition run.

The intermediates meanwhile completed three tasks based on a timed run along the ridge, round one marker and back to land on a spot. Competitors were faced with the dilemma of whether to line up for a spot landing, losing valuable seconds without a guarantee of hitting the mark, or to go simply for a fast time, landing outside the area.

One highlight of the whole weekend was undoubtedly a barbecue and disco held in pilot **Richard Viner's** indoor riding school, near to Devil's Dyke. Whilst **Tony Turner** dedicatedly cooked beefburgers on the charcoal fire, and **Johnny Carr** gave his usual high standard disco, there were other attractions.

A trapeze, hanging from the ceiling, attracted the inevitable showmanship. Richard demonstrated his ability and **Michel Carnet** revealed a hidden talent on the apparatus — while **Dougie Maynard** and **Auriole** gave a dual demonstration later.

But "**Brennan**" quite definitely stole the limelight. A circus-trained horse ridden by Richard Viner, he delighted everyone with his professional act. He danced the tango, cha-cha and waltzed. He also gave a demonstration of how **Johnny Carr** looks when he laughs . . . Sadly, the disco event cannot be repeated. Richard has sold up his school and horses, including **Brennan** (who went for a five figure sum) and is concentrating on power.

Overall Position	Name	Points
First	Lester Cruse	305.72
Second	Peter Harvey	298.05
Third	John Hewitt	295.80

Advanced Position	Name	Points
First	Lester Cruse	305.72
Second	Peter Harvey	298.05
Third	Johnny Carr	291.26
Fourth	Nigel Warder	266.44
Fifth	S. Blenkinsop	251.60

Intermediate (First Six Placings)	Name	Points
First	John Hewitt	295.80
Second	Richard Viner	277.29
Third	E. Cunion	248.9
Fourth	A. Maclean	243.28
Fifth	Tony Turner	186.96
Sixth	Peter Harris	119.35

INDUSTRY WATCH

by J.A. Hudson

Well, here we are at the end of a relatively disappointing season for most British manufacturers. Hang glider production is an intensive thing and one has to be aggressive and forceful to stay in front. Glider designs are becoming more and more sophisticated even though they may look just more 'modern' Rogallos.

Most manufacturers say that today's ships take as many as 75% more labour hours than the gliders of just over a year or so ago, and these hours have to be paid for with gliders that sell well. For most of the year the pound has been very strong, making British products expensive overseas. The natural progression to self-manufacture in most of Europe has also led to a fall off in orders for every manufacturer. High interest rates, inflation and the generally receding market has caused the chill wind of financial hardship to blow through many a sail loft this year. Although most manufacturers are still very much in business, research and development of new products to match the world's best has been hindered.

However, the future looks good from now on since nearly all the manufacturers are well on the way with pre-production proto-types for high performance machines for 1981.

Hiway

When you have a success story like the *Super Scorpion* it is very hard to follow it. The Super Scorpion has probably done more for hang glider design world wide than any other craft. The leader in easy handling and effortless flying, the Scorp' has been up-dated very successfully to a Scorp' Mark II but Hiway hoped for a similar success story with the *Vulcan*. It has not happened for them, particularly in the U.K. and the development team at Hiway is now on the way with a new glider to be called the *Demon*.

This is a 50% double-surface glider with pre-formed battens, enclosed floating cross tube, span of around 37 feet and aspect ratio of 7. It's fast, nice handling and seems to go well, although at the moment only three units are flying. A pre-production run of five is about to be released.

Power triking is a major development at Hiway, and many *Sky Trikes* are flitting about the sky. A new, 250 c.c. engine option is soon to be made available, and a new trike option for *Fledgling* rigid wings will be available soon. Also under development is a 2-man trike and glider combination stressed to take the full loads required for BHGA glider approval.



Hiway Demon

Skyhook

Len Gabriels, at Skyhook, is very worried by the lack of a glider testing rig which would enable him to sell many more machines in Germany and Europe.

His top ship is the *Cutlass*, and after a year of development and production it's been refined and is now selling well. Development of his 1981 gliders is steady but he is not releasing details of his new models before early 1981. Like most of the manufacturers, Skyhook's Power Trike forms a major part of his future plans and achieving 108 measured pounds of thrust from 10 h.p. is a step forward. The power unit can be attached to most gliders but is developed around the *Cutlass* on which it performs very well indeed.

Flexi-form

Flexi-form are currently riding a wave of success with their *Hilander*, a well-developed glider which has been used by many competition pilots this year. International competition use has caused a number of enquiries from Europe, a market Flexi-form hope to forcefully sell in next year. The glider handles very well and has a good turn of speed and seems set to form a part of Flexi-form's production for the major part of 1981.

An experimental development of the *Hilander* is currently being built and this will feature a 65% double surface, hidden cross tubes and many other advanced features. Believing in full development before production, Hughie McGovern and Mike Hirtly feel this ship will be attractive to top competition pilots since it will be fast, clean and not forgiving of sloppy flying. Still in embryo form, this development will not be seen around until the end of the year, and probably not in production until Spring, 1981.

Solar Wings

Solar Wings seems to be 1980's success story. A company started less than a year ago, but one with a reputation for a good product. They launched the *Solar Storm* in January and it has proved a winner for them being flown for competition and fun flying country wide. Their new development for 1981 is a 130° nose, semi-double surface wing with pre-formed battens in the upper surface and flexible in the lower. At the moment pre-production proto-types are being worked on and look good, with clean, well-made sails and the usual high quality air frames.

Solar have an association with a long-established power enthusiast, Nick Wrigley, and promote the *Storm Buggy* trike unit for use with the *Storm* glider. This is a very powerful unit and recently came first and second Trike Combination in the Norfolk Airfield microlight race.

Chargus

As a pioneer in power flight, Murray Rose seems to have concentrated on power hang glider development slightly this year and is producing his T250 Trike unit featuring a 3-bladed 250c.c. power unit. This is going very well and has been flown on *Vortex's*, *Cyclones* and many other machines. A new development is a 250sq. ft. two-seater Trike/glider combination aimed at schools for training and passenger flying. Chargus has been badly hit by the strength of the pound, which has affected many of their overseas sales, although they have been kept busy with their new *Cyclone II*. This is a floating cross tube up-date of the high-performing *Cyclone I* and all Mark I gliders can be up-dated to the new specification.

Eurowing

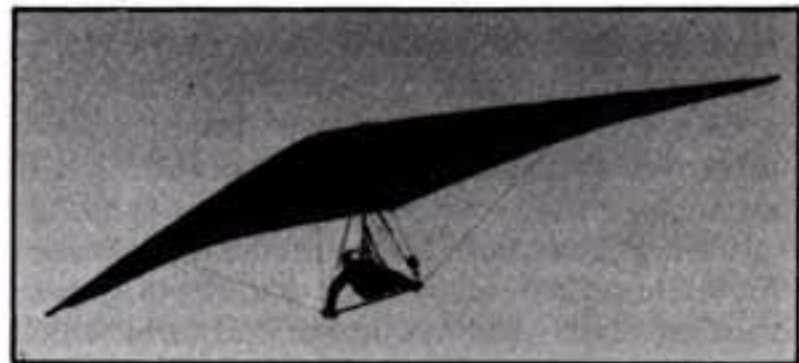
The emphasis on power is nowhere more apparent than in Eurowing who foresee a major growth in this side of ultra-light flight. After some early problems with the *Eagle*, Brian Harrison is now confident that the reliability and high quality will continue to add to the back-log in his order book. Being the agent for *Catto Aircraft*, a US company that specialises in rigid micro-lights, Eurowing are expecting the owner of the company, Craig Catto, to visit them in January for the launching of the latest Catto development, a weight shift and "rudderon" controlled rigid wing.

His own development centres around a Rowena powered trike with 210 c.c. and 95lbs. thrust which is sold as a unit for attachment to any glider, or as a combination with the *Spirit* hang glider.

Mainair Sports

Mainair has established itself as the major accessory company in the U.K., running a mail order section of the hang glider parts and components. Since 1981 is predicted to be the year of the powered ultra-light, Mainair intends to promote a full range of power accessories such as engines, propellers and wheels, instruments, clothing and anything else which may be required by the power enthusiasts. A current development concerns a specifically designed parachute system for micro-light which is expected to be available in November/December, 1980.

In addition, Mainair Sports are associating with Graham Hobson and **Northern Glider Sales** to establish a new micro-light power school for tuition for power enthusiasts. Hang glider accessory development continues in the meantime and the company expect to announce a new American digital altimeter which should be available around about Christmas.



Southdown's Lightning

South Down Sailwings

An aggressive company, with a reputation for stretching new designs to the limit, South Down feel confident that their latest glider, the *Lightning*, will do away with many of the shortcomings of present machines. Both the cross tube and keel are enclosed and the longitudinal fin also encloses the king post. South Down claim the prototypes are about the fastest Rogallos in the sky, showing great potential for the design.

After a wait to see how trends are going, work has started on their powered Trike which features a 340c.c. Sach engine and neat compact air frame.

Northern Glider Sales

Representing most of the U.K. manufacturers, as well as La Mouette of France, Graham Hobson has been pleased with 1980. The *La Mouette Atlas* has been his major success story and is scheduled for full production throughout 1981. La Mouette are well into development of a new glider which is planned to run alongside the *Atlas* and which follows current design development. The new glider will be fully documented for air worthiness before release which should enable immediate international sales.

Why don't more people take up Hang gliding?

by Chris Pym

Elsewhere in this issue, we see that BHGA membership is not doing as well as it might. There have been many explanations put forward, but those of us who have been flying for several years now DO tend to forget just how difficult it can be to get into the sport. This thoughtful, and thought-provoking article suggests some of the reasons. It makes some pretty searing criticisms of hang gliding instruction. Although some of these may be explained away by mere thoughtlessness on the part of one particular school, it indicates how careful instructors have to be, in their behaviour and attitudes, to ensure that their pupils are given good value-for-money, as well as safe training. It is too easy, when you deal with course after course, to fall into treating your pupils as "mere punters", and forget that, while they might be inexperienced, they are real people, with real fears and apprehensions, but more importantly, **THEY SHARE THE DREAM**, else they wouldn't want to fly . . .

I hope that, despite everything, Chris eventually makes it . . .

During this past summer I was fortunate in spending a pleasant week in the company of an old friend who lives in the shadow of the Downs. At his invitation I saddled his finest hunter and set out for a pleasant ride along the quiet leafy lanes which nestle in the folds of the chalklands. Gently clip-clopping along at a leisurely pace in the lengthening shadows of evening, and savouring to the full my good fortune, I was suddenly startled by a most spectacular sight. Reining-in without thinking, I half-stood in the stirrups to gaze in wonder at the slow and graceful approach of a beautiful flying-machine which alighted effortlessly in the newly-mown hay. So taken aback was I that I could sense the effect of adrenalin coursing through my veins. My reverie was shattered beyond recall and my thoughts dwelt on that noiseless man-made butterfly until I reached home.

Intentions

Until this moment, "hang-gliding" to me had been an obscure pastime whose existence was known to me but lay in the murkier depths of my awareness, worthy of no more thought than quarterly gas bills.

I think it true to say that most people are thrilled by the thought of flying but the majority dissuade themselves when intention comes uncomfortably close to action. There is a great number to whom hang-gliding will, needs be, remain a mere wish and I will now presume, as a layman, to present various reasons why this should be so.

The first obstacle is apprehension. Apprehension is one of man's oldest emotions, born of fear of the unnatural, unknown, or of that which isn't understood. Unfortunately it is a state of mind easily encouraged in the gullible. Newspaper people are expert in this and take great care in presenting their readers with unsavoury news of disaster. A young sport such as hang-gliding has no defence of maturity to fall back on, and all I have ever read about it has led me to believe that the pastime is inherently dangerous in the extreme. It's alright for other people to risk their lives, but one normally finds it abhorrent to unnecessarily risk one's own. Thus apprehension is probably responsible for tying people's feet to the ground more so than any other factor.

Finance

A second obstacle is finance. Perhaps the most questionable outlay is the price one pays for the privilege of learning to fly. I have discovered that most of the veterans of the hang-gliding fraternity were fortunate to have learned their skill with little or no drain on their resources. Such times when one taught oneself to fly have receded into history, replaced today with a smattering of schools which have taken root in most areas of these islands. In principle this development is admirable, but I personally harbour (hopefully unfounded) reservations and therefore apprehension when inquiring into the professionalism of these establishments.

A prospective flyer obtains information from his chosen school and deposits a percentage of the course fee, which in all, generally costs around £100. As in all money transactions, the buyer takes a calculated risk and relies on the integrity of the seller. Before I part with my deposit however, I should like to have made available to me a critical and objective assessment of my selection of schools to aid my choice of one. Hang-gliding's governing body no doubt has up-to-date information which it could divulge.

Hopefuls

The observations I am about to remark on are probably, hopefully, far from typical and were made at one school I saw in operation. The site was being flown, in my opinion, by experienced pilots in a most orderly and commendable fashion. I stood for a while, lost in the wonder of true flight and then made my way to a group of people sitting watching fellow members learning to fly down into the valley below. I quickly established that all of them were hoping to fly that day and, rather surprised that their chances of doing so were becoming slim, I decided to find out more of what was entailed should one choose to learn at this particular school.

Criticisms

All of them were attending the school, not on its merit, but because it was the nearest one to their homes. Although some of them would, no doubt, have had favourable comments to make, the weak points of the school were so legion that no one had a chance to say anything favourable. Mentally sorting through them, I gave them some order, as follows:-

Initial enquiries to the school received too little information on hang-gliding. Thus one usually started the course with no knowledge of what to really expect. Some students suggested that a reading list be issued to all with emphasis on basic knowledge. (May I suggest that each student be given a "complimentary" official publication, the sales of which could perhaps be of benefit to the hang-gliding governing body. I believe there exists a book by a Mr. Breen and Ann Welch?). A requirement of the course would be prior study of the book and appreciation of basic knowledge. On entry to the course one would then be tested by classroom examination on this, obviating the need to belabour easily assimilated facts.

The classroom itself was felt, by some, to be very spartan in view of the cost of tuition, and some criticism was levelled at the tutors themselves. One

especially seemed to be little more than a student himself and had limited skills in communication.

Objections were raised by the obligation to pay a sum of money on those days when flying was not possible. Some had driven many miles to arrive at the school at 8.00 a.m., only to be told that although conditions were good, the site was not available. They were then requested to pay the lost day's fee.

Mid-day breaks were compulsory in that the instructors usually elected to drive off to the local tavern for lunch, where they stayed until closing time. Five o'clock was invariably the time to leave the hill, whether or not the weather conditions were favourable.

One unusual objection was that some students were so obviously **inept or unco-ordinated** that their hopes of flying were inevitably destined to be thwarted. Instead of the instructors gently pointing this out to them and reimbursing a percentage of the course fee, the poor incompetents were urged to try and try again, much to the frustration of the others whose rate of progress was always, therefore, tied to the speed of the slowest. Indeed, I saw one pupil career sideways down the take-off slope to zoom like a rocket to the bottom and land unceremoniously with bone-crunching inaccuracy as the glider's nose ploughed into the ground. This, according to his peers, was his best flight to date!

Attending for weeks

One aspect of teaching probably peculiar to hang-gliding and one impossible to control is the suitability of conditions — with the result that some students had been attending for weeks with their final certificate still far beyond their grasp. However, days had been seen when experienced flyers were enjoying superb conditions and yet the students had been sent home. On other occasions the conditions improved as the day wore on but, because of earlier decisions, no teaching had occurred.

Perhaps the loudest objection concerned the mode of flying. Virtually all the regular flyers fly prone. Having begun the course at the school, some students had discovered from experienced pilots that they could have learnt to fly in the prone position instead of the seated. Seated, apparently, is a much easier flying position for learners and an instructor, bent on making capital from the number of pupils passing through his hands, can push a student towards his licence quicker than when teaching prone. As most people ultimately convert to prone it seems logical to learn this mode from the outset so as to avoid possible problems which could arguably arise when changing from seated. I understand from talking to a German flyer that, if not banned, then seated teaching is definitely frowned upon in Germany.

'Pilot One' — how competent?

During my discussions I was interested in the requirements of the pilot's licence, or "Pilot One". Knowing nothing of the practical side of actually piloting a hang glider, it nevertheless appears that there is little to learn if fifteen solo flights are the requirement, together with a very basic examination. As one is then able to buy one's own glider and presumably take one's life in one's hands with no further compulsory tuition, I certainly hope that control of the craft is as easy as the experts make it appear although, cautious soul that I am, I have my doubts.

I have little doubt that my comments are questionable. No offence is intended as I am merely voicing opinions shared by many other uneducated laymen. I trust my mind will be put at ease by an enlightening article in *Wings!*, but until such time, I regret to say that I shall harness my desire to fly a hang-glider.

SMALL ADS

All small ads should be sent to Silvia Howard, Commercial Editor, *Wings!*, 4 Somerwood, Rodington, Nr. Shrewsbury, Salop. Ads sent to any other address will be redirected and therefore delayed.

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

As printed in October *Wings!* advertising charges have had to be increased. From January 1981 classified ads will be 12p per word, minimum charge £2.40 and business ads 15p per word, minimum charge £3.50. Payment in advance, please, to: Silvia Howard, 4 Somerwood, Rodington, Nr. Shrewsbury, Shropshire.

HIWAY VULCAN, custom sail, flies well, good condition. £450 ono, or would part/whole exchange for roadworthy car, van or motorbike. Tony Fuell, 74 Eldred Avenue, Brighton. Tel: (0273) 502952.

The new concept — **CYCLONE II** floating booms, a delight to handle. £550; also **SCORPION C**, £290 and **SUPER SCORPION C**, £400. Ring Ted Battersea, Littlebourne 614.

SUNSPOT (large) Yellow sail, with seated harness and bag. Recent agent check. £275 ono. Tel: Horsham 57314.

GRYPHON 160. Non hang gliding injuries force sale of superb G160. Green/yellow. Ex. Mike Hibbit. Offers. Tony Richards, tel: 074986 433.

HIWAY SPECTRUM (small), seated harness and B bar. Suit P1. £200. Ring Peacehaven 81724 after 6 pm.

CHEROKEE II and **MOONRAKER 78**. Both proven cross country gliders at sensible prices. Tel: Tony Hughes, 0672 53021.

GRYPHON 160. Brightly coloured sail. A very good glider. Going at £350. Tel: Ryde (0983) 66489.

Registered **EAGLE** for sale with twin-pak Arbee vario/altimeter. Arbee A.S.I. Spare prop. 1980 Poolays Flight Guide. £2,075. Tel: 01 546 1630.

MOYES MAXI SP. 194 sq. ft; all orange, v.g. condition. Complete spare airframe and parts. Offers. Price Harness (blue) £35. Med. size French "spongy" type helmet, £10. Alan James, 01-658 7272 (day).

CHRYSLER WEST BEND 82002M Aeromotor by Power Systems Inc. Direct drive. With all accessories, hub and 28 in. x 11 in. propeller. 10 h.p. Brand new. Cost £460. Sell £375. Tenterden (Kent) 4536.

GRYPHON 160. Gold, yellow, white with black leading edge. Second glider, hence £299. Phone Robin on Herne Bay (02273) 61207.

MIDAS C. Cheap performance for lightweight competent P1. £175. Stuart Prosser, Abingdon 23528.

SPIRIT, good condition, multi-coloured sail, good kite complete with bag. A real bargain at £150.00. Tel: Longridge 3443.

AVON SWIFT 22m². Very good condition, ideal first kite, very soarable, 11-15 st. £195 includes seated harness, new helmet and cover. Skyflite prone harness, brand new. £25. Mold 57361.

FOUND at Rhossili (27th Sept. '80). Birdman kite bag containing tools, scarf, etc. Will the owner please contact Jeff Metcalfe, tel: Desford 3478 (home); Leicester 873561 (work).

HIWAY VULCAN. Nice condition. £450 ono. Ring Graham Hobson, 061-973 4085.

STORM (Medium). As new, hardly flown, tasteful colours, two spare uprights. £550. Colver vario, excellent machine. £85. Ring Crawley 515676.

VORTEX 120. Excellent condition, yellow/white sail. Ideal beginner's kite. Great soarer. Going for a song at £300 ono. Please write Roger Pearce, 60 Derby Rd., Southampton.

STORM medium. Excellent performer. Knows how to go cross country. Lovely to fly. Nice colours. £530. Carl, Paignton 552717.

ATLAS 16 Medium. May 1980. Low airtime, hence very good condition. Fitted with latest Hiway nose catch and A.B.S. fairings. Extremely good performance. £620. Bristol 696866.

CYCLONE 180. Attractive sail, under 5 hrs. air time. £450. Seen flying Yorks or Salop. Malton 3643 or Newport 813384 (Salop).

MOONRAKER 77. Excellent condition, very little used, multi-colour sail. Mainly white. £200 ono. Contact: Mr. J. Langton, Plume of Feathers Inn, Princetown, Devon, or tel: Princetown 240.

Medium **SOLAR STORM**. £500. **MOYES MAXI II** £350. Contact: Fred James, 78 Goddington Rd., Strood, Kent.

Hiway **VULCAN**, good performance linked with easy handling. 8 months old. Good condition. For quick sale, £450. Tel: Peter on Leeds (0532) 551541.

Chargus **VORTEX 120**. Rainbow coloured sail, in good condition. With seated harness. Quick sale wanted. £295 onon. Tel: David Glowa, 061 231 4861 (day); Rochdale 352598 (night).

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SOLAR STORM (medium). 6 months old. As new condition. Multi-coloured. £535 ono. Ring David Atkinson, 0254 74638 after 5.30 p.m.

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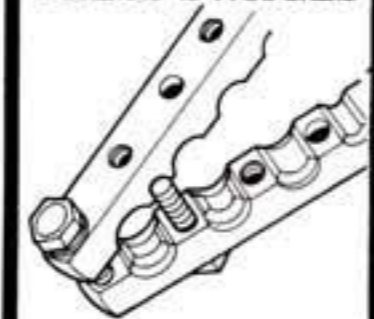
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