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Wings!

AUGUST 1980



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Wings!

Editor: Brian Milton, 31 Westbury Road, Bristol BS9 3AX (0272-621412)
Layout: Butcher and Gomez, 44-46 St. Lukes Mews, London W11 (01-727-5947)
Commercial Editor: Sylvia Howard, 4 Somerwood, Rodington, Nr Shrewsbury, Shropshire Upton Magna 365.
Letters Editor: Stanley Pottinger, 31 Westbury Road, Bristol BS9 3AX.
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BHGA Council: *President:* Ann Welsh OBE. *Chairman:* Roy Hill (0865-735204)
Treasurer: Percy Moss (0926-59924).

Members: David Bedding (08-44-7186), Diane Hanlon (051-652-5918), John Ievers (049-525-4521), John Hunter (Hatfield 71027), Clive Smith (092-73-61270), Colin Lark (0453-46592), Bob Mackay (0792-813318), Brian Milton (0272-621412).

Council Officers: *Development:* Barry Blore (0235-834033), *Secretary:* Chris Corston (0823-88140), *Training:* Vacant, *Medical Advisor:* Dunstan Hadley, *BHGA Solicitor:* Anthony McLaren (Halnaker 457), *Technical Officer:* Alan Barnard (Crewkerne 72478), *Registration Officer:* Terry Dibden (Wimborne 886464).

BRITISH HANG GLIDING ASSOCIATION: 167A Cheddon Road, Taunton, Somerset TA2 7AH.

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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). 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.

Editorial

Let's bite the bullet. At the next meeting of BHGA Council, we'll be discussing the extremely thorny issue of South Africa and international sporting events. It's as well to give some background to what will be a difficult debate.

When CIVL was first formed, the first BHGA Chairman **Martin Hunt** came back with the news that the 1977 World Championships would take place in South Africa. Those who have been in hang gliding for years know that this was the main reason I stood for Council in 1976. You will know also of a letter I circulated to all Council members, and sent to WINGS — one side of what I thought would be 2 opposing arguments in a public debate — saying we shouldn't send a team. In the event, the World Championships were cancelled for that year, though there was intense and sometimes bitter comment at raising the issue in the first place.

Last year, at the World Championships in Grenoble in France, the official FAI view was, as it's always been, and still is, that *all* its members must be eligible to take part in the World Championships. I understand that the French *Government* though, made different noises, intimating to the French hang gliding authorities that, if the South Africans arrived in the country to fly, they wouldn't be allowed visas. Whatever the truth of this, *the effect* — and that's what matters — is that South Africa didn't take part. If it had, then we could not have done. Or put it another way, we could have done, if we didn't finance overseas competitions the way we do, with the bulk of the money coming from the Sports Council. And we could have done at the cost of a few resignations and a fairly serious row.

For years, pursuing excellence, trying to win with British pilots and British machines, we have been able to neatly side-step this issue. But because it's going to be a live issue at the 1981 World Championships in Japan, and because we have ourselves to re-consider a British application to run the same championships in 1983, then the bullet has got to be bitten and we have to re-examine where we are.

Technically, the championships that took place in Kossen this June were the European Championships. That's all the FAI recognised. But **Sepp Humberger**, who has played such a big part in the creation of international competition, succeeded in getting the Championships called the *World Open European Championships*. This year, unlike 1978, the Americans didn't come. The Australians were there, as were some New Zealanders, but the Japanese — next year's real World hosts — weren't.

A few weeks before Kossen began, three South Africans asked for invitations, which Sepp gave them. Subsequently, after a fair-sized row behind the scenes, it was discovered the South Africans hadn't the official backing of their Aero Club, so the British Team was able to go. If the team had gone anyway, saying damn the consequences, there's a chance no one would have known. Indeed, that was intimated a couple of times to me. But we had already signed papers with the Sports Council saying we weren't in official competition with the South Africans. Leaving all personal feelings aside for the moment, if it was later discovered *we had lied*, what would we have done then?

The Sports Council has backed the BHGA this year with more than £21,000. Competitions take up, by merit, by forward budgeting, nearly £13,000 of that money. Without the Sports Council, we would be back in the situation we were in Kossen in 1976, when we gave each competing pilot £50 and wished him luck getting there and back, though we had booked for his rooms and paid for them with money directly out of the membership's pocket. Now, aside from raffles, competition costs the membership nothing. Indeed, competitions have regularly made a profit. But there is a cost.

If South Africa take part in the 1981 World Championships, bluntly, we cannot go. We could not afford the air fare, and the month of training and competition that winning demands, without Sports Council support. It is my opinion, but you should seek others, that *even if it was desirable to revoke the Gleneagles Agreement*, it couldn't be revoked before the Championships.

The Hang Gliding community isn't, in the conventional sense, a political community. It doesn't matter whether you're communist or fascist, black or white, man or woman . . . what matters is that you're a flier, or that you love a flier. For that reason, I don't want to emphasise the case that's made against *Apartheid*. I've no doubt it'll come up. The central issue which will be raised at the next BHGA Council, and which Council members — backed by your votes, as representatives, not delegates — will vote on, is how we can fully participate in international sport, and especially in Japan, with a realistic view of where our funds come from, and keeping faith with the roots of flight, that it should be free for *anyone* to do.

Brian Milton

ATLANTIC FLIGHT

A 28 year old American pilot who rejoices in the extraordinary name (according to United Press International) of **Eagle Sarmont** is having problems setting off on a hang glider to fly the Atlantic. He's had his glider impounded by Canadian authorities because of a dispute over its safety, and the allegation that his entry into Canada was "illegal". Sarmont, who comes from Santa Cruz in California, is apparently flying a hang glider powered by a snowmobile engine. — from *The Guardian*, July 23rd, 1980

THIRD CABLE HIT

A hang glider pilot today described how he saw another flyer crash into a 132,000-volt power cable at a South Wales air display.

Nineteen-year-old Keith Cowan escaped unhurt from the crash near Brynmawr Comprehensive School last night as hundreds of people looked on.

Hang gliding trainer Mr. Gerry Breen, who was taking part in a three-man display said, "There was a flash and a bang and then the glider dropped about 75ft. to the ground.

"It was near the end of the routine as we broke away from each other and Mr. Cowan turned right into the cable. The aircraft fabric melted, the tubes fused and it just dropped.

"It shook him up but luckily he was unhurt".

Mr. Breen added: "Pilots of his calibre just don't stop flying. I know he will be back in the air".

Mr. Cowan, of Llangattock, was taken to Nevill Hall Hospital, Abergavenny, for a check up and then released.

The display took place before hundreds of people at a Brynmawr Comprehensive School barbecue.

"Mr. Cowan is lucky to be alive, an Electricity Board spokesman said today. He said the crash caused a brief power cut at Panteg steelworks and engineers would be checking the cable today.

Reprint from South Wales Echo: June 14th 1980.

HANG GLIDERS DO IT SLOWLY

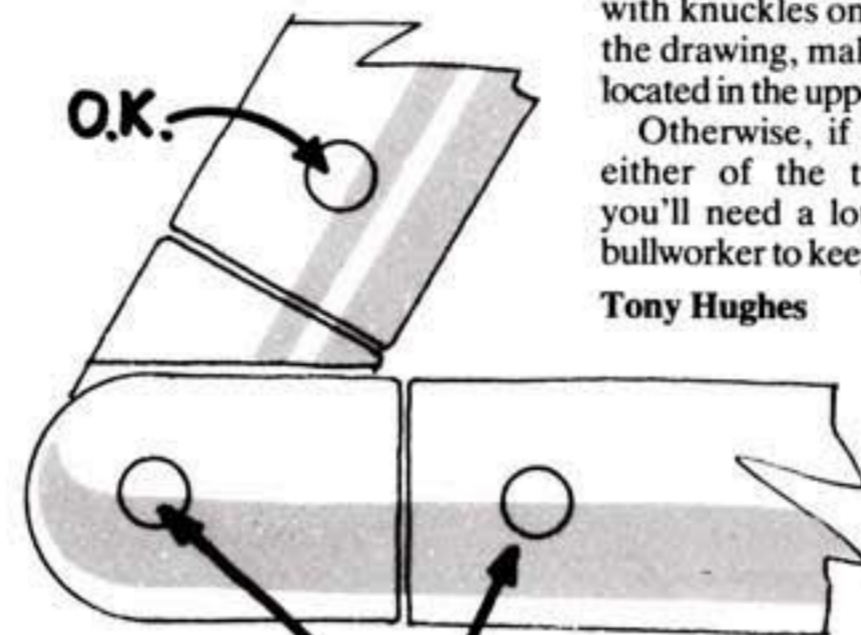
HANG GLIDERS DO IT WITH A FLAIR

Stuart Moss (Inverness)

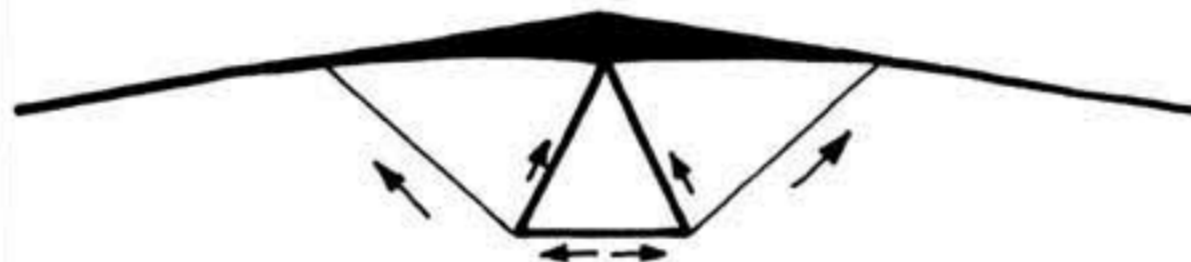
HANG GLIDERS ONLY DO IT WHEN THEIR WIVES LET THEM

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PIP PIN POPPING

There's been some controversy on the subject of ball locking pins (pip pins), especially on control frames.

If you have a folding control frame with knuckles on it, similar to that in the drawing, make sure the pip pin is located in the upper of the three holes.

Otherwise, if the pin does fail in either of the two bolt positions, you'll need a lot of practise with a bullworker to keep the glider together.

Tony Hughes

HANG GLIDER NEWS REPORTER — NORTH ENGLAND

Stan Abbott is a member of the Dales Hang Gliding Club and the North Yorkshire Sailwing Club and has worked in journalism for about five years.

He is 27 and is Deputy Chief Reporter on the Evening Despatch, Darlington.

He took up hang gliding with Bob Bailey's school last year. He flies a Sunspot. Stan is probably the best man to call from the North of England with good and bad, hang gliding news.

Contact numbers: Darlington 60177 extension 36 (office hours). Home Darlington 485611. Weekends Leeds 448303.

...odd things hang glider pilots do when they're not flying. **Dr. John Lythgoe**, from Bristol, whom Americans will remember at the first American Cup making 4,200ft. in his first ever thermal flight, without a vario, is chairman of the British Society for the promotion of Underwater Science. This represents the interests of divers, and fights the bureaucrats who want forms signed in triplicate before they go underwater. But maybe underwater science isn't so far away from hang gliding. . .

HANG GLIDERS DO IT ON THEIR OWN (Anon)

BRIGHT IGNORANT BLISS

I am writing to comment on Stan Abbott's contribution to "News Extra" in the June issue of "Wings!". The piece by Stan concerned the danger to hang glider pilots from military low flying aircraft. In the March '79 issue of "Wings!" I notified members "THAT ANYONE SOARING ON WEEKDAYS IN ANY AREA SUBJECT TO MILITARY LOW FLYING DOES SO AT HIS/HER OWN RISK". "Any area" means most of the UK.

In some areas, including Wales, Hang Gliding Clubs have arrangements to notify local R.A.F. Stations if soaring is going to take place during the week. Using these arrangements does not however guarantee that low flying military aircraft will avoid you. This is because R.A.F. Stations will only know of some (approximately 50%) of the low flying in their local airspace. **THERE IS NO OTHER DAILY PROCEDURE.**"

Unfortunately this still holds true and it seems that it is only a matter of time before a hang glider pilot gets caught in wake turbulence or worse. What is the answer? What can we do to impress on all military flyers that a hang glider caught in wake turbulence would be tossed about like a leaf in a gale? My own idea is that we should attempt to get them to think of hang gliders and of **SURFACE WIND DIRECTION** together. If

they could be familiarised with our ridge soaring practice they would know that by avoiding flying low over the sides of hills and ridges facing into the wind the risk of "close encounters of stomach turning kind" would be minimised.

We urgently need an articulate and diplomatic MEMBER knowledgeable in Airspace matters to represent the BHGA to NATS, MATO etc., and **TO BE RESPONSIBLE FOR BHGA AIRSPACE AFFAIRS**. Is there a member living close to London who would be prepared to help? Experience as a Pilot of conventional aircraft or in Air Traffic Control either Civil or Military would be valuable. Mike Caston was elected to Council in 1979 to look after Airspace, but had to resign because his job did not leave him sufficient time to cope. No-one came forward to replace him and eventually the job got dumped on John Hunter. John is almost fully occupied with other work for the BHGA, especially in his capacity as Chief Accident Investigator. He is also involved with Airworthiness and other things so it is no wonder that he has not had the time to cover Airspace. There is no-one else on Council with the time or the specialised knowledge to handle the job. I handle the administrative aspects but there has to be an Airspace leader coping with the sharp end. Someone used to working with a committee or group could enlist help as long as he is prepared to accept overall responsibility. **PLEASE WILL ANYONE WHO IS PREPARED TO HANDLE THIS JOB CONTACT ME URGENTLY SO THAT OUR VITAL AIRSPACE INTERESTS ARE NOT SACRIFICED BY DEFAULT.** The Maintenance of close and regular contact with the Military will be a prime task.

Chris Corston

HOW MANY FLY?

BHGA membership is more than 4,000, but how many actually fly? During research for the club guide which appeared in last month's **WINGS**, **Chris Corston** collected together the estimate of every club on their active flying members. Given that two of the figures were "guess-timates", though likely to be pretty right, nearly half the BHGA membership — 1,946 — are active fliers. It would be nice to see such figures from other countries.

HANG GLIDERS DO IT WHENEVER THEY CAN THERESE CONROY, BENFLEET HANG GLIDERS DO IT NATURALLY

Nick Larkin (Southampton)

Text of British proposal to CIVL for the WORLD CHAMPIONSHIPS, 1983, in Great Britain:

All previous world championships have been held from mountains more than a thousand feet high. All have involved "finite" tasks, within a defined area, much like a skiing competition. Flying in Britain, particularly competition flying, isn't like that. Our hills are small compared with those of other countries. This has had a profound effect on the way we fly. As a result, we would like CIVL to consider some proposals for the 1983 World Championships in Britain.

1. Every task, every day, shall be a cross-country, commonly known as a "go-for-it" XC. No speed, 360s, spot. Just distance.

2. Scoring would be the longest flight, in kilometres, per day. Team scoring would be combined distance of best 3 of a nation's pilots.

3. Each day, a pilot would be directed to a hill, would check through a marshall, and fly as often as he liked, when he liked, even returning after one or more XC flights for another go, subject only to simple safety rules governing the number of pilots in the air on a ridge at any one time.

4. Qualification for the World Championships should be to standards similar to that set for the Olympics; that each competing pilot should have made 3 x 30 kms flights, out of ridge lift, and over more than one valley, in the two years preceding the competition.

5. We believe the maximum feasible number of pilots we could cope with in such a competition to be 100. We request CIVL - a body representing all the national associations - to direct itself to the problem of eliminations before the main competition, which should take place in the Spring (May or June) of 1983.

6. We are working on an initial proposal that there should be one class only - Open - of competition, given the conditions that prevail in Britain.

7. We would like consideration given to the proposal that - given a minimum size per nation of 3 pilots - each nation should be able to field a team whose size was dependent on that nation's flying strength and skill. The maximum size we envisage, however, would be 8. We ask CIVL to recognise that the USA, for example, has a lot of great XC pilots, while another nation might have few or none;

why should both nations be limited (or entitled) to the same size team?

8. The nature of the competition, and the probable "state of the art", means that every competing pilot must have a barograph.

These are working proposals. If accepted, there will be a great change in World Championship competition flying. Some of our hills are less than 100 metres high, and of a type which can be found in any country except Holland. From hills like these, British pilots have made flights of 40 kms., and not just in isolated cases. By 1983, this will be less than a norm. It is in this direction that we believe ordinary flying to be going. Competition should reflect this.

**Brian Milton, Chairman
BHGA Competitions Committee.**

**Roy Hill, Chairman,
BHGA.**

WORLD CHAMPIONSHIPS 1983

At the 1979 CIVL meeting in Grenoble, the then BHGA Chairman **Reggie Spooner** applied for Britain to run the 1983 World Championships. Elsewhere in WINGS, there are details of the proposed British rules, which were apparently welcomed by CIVL delegates at the 1980 meeting, and would radically change the way international competitions are scored. However, the present BHGA Chairman **Roy Hill** couldn't give CIVL a categorical assurance that an official South African team would be allowed to fly here in 1983. Amongst other reasons, including the opposition from a substantial section of BHGA Council (not including Roy), there was the undeniable fact that no Sports Council backing is given to events which include South Africans, because of the Gleneagles agreement, signed by the Labour Government, which Mrs Thatcher has categorically refused to disown.

Roy did apply to run the European Championships in Britain in 1982, and this is now being considered by BHGA Council and competitions committee.

SHORT AIR WORTHINESS ITEM

The following gliders have passed the British air worthiness approval scheme, as of July 20th, 1980 - **Hiway Superscorpions I and II, Vulcan; Solar Wings Storm; Northern Glider Sales La Mouette Atlas; Vulturelite Emu. Southdown Sailwings** have entered their Sigma into the system, and it's being processed, but it hasn't yet come out of the far end. **Skyhook Safaris** and **Sunspots** have both been approved.

COMPETITIONS & NOTAM ORIGINATION PROCEDURE

It is vital that when hang gliding competitions are going to be held all other aviators are alerted to keep clear of the area by the issue of a NOTAM (Notice to Airmen). Information on the REVISED PROCEDURE for doing this has recently been sent to Club Secretaries and to the Competitions Committee. If any other members need the information they should contact the Secretary.

SECOND THOUGHT

If hang gliders extract energy from thermals, presumably they lose energy when they hit sink. How many gliders going down in sink would it take to provide enough energy for one glider to stay up?

Roy Butterfield

LEAGUE ENTRY 1981

A growing number of pilots are asking how they can get into the 1981 National League. The entry qualification remains the same as last year, three flights out of ridge lift of more than 10kms each. It was originally intended that all those eligible for entry would be invited to a competition in August to choose the final eleven or twelve, but August is too busy with other competitions, so it looks like October or November again, depending on the BHGA Competitions Committee. If you are interested in League entry, please send details of your flights to Dave Harrison. Dave already has a system going for the XC League, and he'll compile the final National League entry list.

Details of flights to: **Dave Harrison, 3 St. John's Rd, Leeds 3, Yorkshire.**



la Coupe Blériot

Première épreuve internationale de cross-country

BLERIOT CUP TEAM

Following the results of four overseas competitions so far this year, BHGA Competitions Committee has chosen an 8-man team to represent Britain in the Blériot Cup from August 18/23. This, you'll remember, is the Anglo-French team XC which began in 1978, and which last year ended in a draw. The British team, all flying British gliders, is as follows: **Bob Calvert, Bob Bailey, Geoff Ball, Sandy Fairgrievies, Chris Johnson, John Bridge, Jo Binns, Keith Reynolds.** Some of these pilots were abroad at the time of selection, and may not be able to get the time off, but reserves have also been chosen.

As a side-bet at the Blériot, **Johnny Carr**, now flying himself into the Fledgling 2 in preparation for next year's Japan World Champs, will be sent to Lachens to fly against Mike de Glanville, who's also on a Fledge 2. Mike, you'll read elsewhere, was 1st in class 2 at Kossen, while Johnny was 2nd, so there's enough needle with the two best class 2 pilots in Europe having it out at Lachens. BHGA will finance Johnny's trip, while British manufacturers are backing the main British team.

BLERIOT CUP FRENCH REPLY

Monsieur,

We are well aware of your detestable British arrogance, so we are not offended by your bitter words. No English person in France has ever been ill after eating a casserole from Lorraine or Toulouse, or even a good fricasse of frogs legs or snails. We cannot say the same of the hundreds of French schoolchildren who go to your country to improve their English, and we will not waste our time describing their faces, bloated and pale from the assault of your wobbly jellies ("jellies tremblotantes"), your haggis and your sickly baked beans.

We accept the challenge which we are certain is solely the result of your blind vanity, but we reserve the right to choose our kites, regardless of country of origin. Such a duel is one for pilots, and not machines. Nevertheless, even if we fly handkerchiefs, we will win.

So, sir, to your wings... whatever they are. At the Mountain of Lachens on August 18-23, we await you with every confidence.

...la Commission de la Competition de la FFVL...

(translated by the Bristol Womens Register French Group)

CHANCING YOUR ARM by Stan Abbot

Speedway rider **Tormod Langli** threw caution to a cross-wind and helped bolster a public image of hang gliding as the sport of fools.

Would Bob Calvert or Robert Bailey risk life and limb climbing untrained aboard a mean, powerful motorbike to hurtle round a dirt track at break-neck speed? Surely not.

Yet, it seems, Langli — star of high-riding Halifax Dukes speedway team — was quite prepared to reverse the roles. He paid the consequences with a broken arm that has put paid to his career for the rest of this season.

He has brought down the wrath of the promoters who paid good money to bring him to Halifax from Norway and who hoped to see that outlay repaid by scooping the speedway league.

Yet the man who dices with danger on the speedway circuit approached the potentially lethal sport of hang gliding with a complacency that prompted speculation that he was doing it all for a dare. Now he is back in his homeland, leaving behind anger among both sporting fraternities and conflicting reports as to his past experience.

Fred Stogdale, of the Pennine Hang Gliding Club, was on the hill at Pule the day the accident happened.

Langli, 27, was flying on a training slope about 150 ft. up to the 400 ft. ridge.

"The flying at the top of the ridge was very good", said Fred. "I had been flying all afternoon but gradually the wind went north west and when it's north west it's 90 degrees to where they were flying from."

The antics of Langli and Norwegian friends were witnessed by Fred's 17-year-old son Nicholas, who has watched hang gliding regularly for three years.

"They were all acting dangerously all the time, taking off down wind and crosswind and they didn't seem to know what they were doing", he said.

"Eventually this one went up, stalled it, dropped a wing and broke an arm on the side of the A-frame."

Fred Stogdale went to help. "Langli was sitting in a jeep, holding his arm. I asked the man with him how long he had been flying and he told me 18 months."

"I asked whether he had been to a training school and why he hadn't stopped Langli taking off down wind", said Fred.

The only reply he got was: "Well, he's bigger than me."

The tale Langli evidently told Gordon Samson, speedway writer for the Halifax Courier, was a little different.

"He hit an air current and turned upside down and fell 40-60 metres. Apparently he was quite an expert", Samson assured me.

Dukes promoter Eric Boothroyd also bought a slightly watered-down version of that tale. But he was adamant that - expert or not - there was no way he could tolerate his riders partaking of "such a dangerous sport".

"I would have thought that a bloke would get enough kicks out of just riding speedway, because it's a dangerous sport."

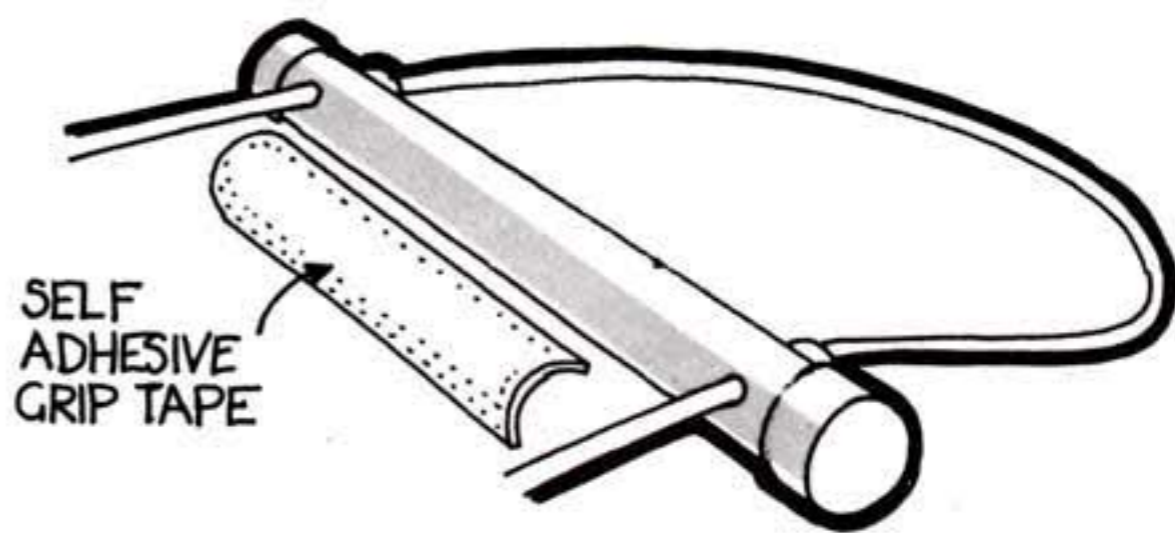
"I was very annoyed when it happened because on that night we had a meeting against Belle Vue. It is absolutely ridiculous doing that on a day when you are going out to earn your living."

"Had I known he was doing it I would have stopped him or written it into his contract."

"We have lost a rider out of the team and there is no way you can replace a heat leader like Langli. He was the third best rider in our team."

"When he is under contract and he is paid a lot of money for us to use his services then first of all he should think about the people he is under contract to."

Never-say-die Langli, father of two, set his chances back even further when he tried to make a comeback before the arm was set and re-broke it. Now, said Boothroyd: "We may well decide he is not for us any more. This incident will affect our judgement to a certain extent."



BHGA MASTER PUBLIC LIABILITY POLICY

This Policy has been renewed through R.J.S. Spooner at a similar premium to that of last year. Reggie Spooner and the CCPR Sports Insurance Bureau were asked to quote but the latter were unable to. Main features and conditions of the cover remain as follows:-

Flying Membership (Individual or Family) includes Public Liability Insurance currently in the sum of £500,000 which undertakes to indemnify a member for his/her "Legal Liability at Law" in accordance with policy conditions, a copy of which is held by the Secretary of the BHGA. The insurance is in force whilst a member is flying throughout Europe. The current terms of insurance include the following requirements:

- (1) that the hang glider being flown is acceptable to or "approved" by the BHGA.
- (2) that the member, if flying solo or as pilot in charge of a hang glider, is OVER 16 YEARS OF AGE;
- (3) that the member bears the first £25 of each and every claim.
- (4) that the member is ordinarily resident in the U.K. (Overseas Members are covered while flying in the U.K. only)
- (5) that accidents likely to result in claims are notified to head office immediately and LIABILITY IS NOT ADMITTED.
- (6) that the hang glider flown is not motor powered, towed, tow launched or balloon launched.

The above forms the basis for all hang gliding policies issued by Spooners and extensions of cover can be negotiated direct with Reggie in certain areas. Member and Registered Clubs remain covered under the Master Policy for hang gliding related activity as explained in SEC/CLUBS 25 which was sent to all Clubs in late 1979.

BRITISH CLUBS GUIDE - CONTACTS FOR VISITING FLYERS

Did you spot the "deliberate mistake" in the June issue? Somewhere along the line the Glasgow based Lanarkshire Soaring Club got shifted approximately 100 miles in a South Easterly direction. Please bear this in mind and alter your travel plans accordingly!!

SLIPPERY STIRRUPS

If you find that your feet slip around on your stirrup, here's a simple and cheap way to cool the aggro...

...Remember skateboards and grip tape? Well, you can buy it quite cheaply now. It's a good idea to warm your tape, and the metal stirrup before pressing them together. For about 20 pence you've got to grips (groan - ed) with the problem...

Tony Hughes

JUNE 500 CLUB

- | | |
|--------------------|--------|
| 1st J.A. McCullagh | £43.22 |
| 2nd A.C. Miller | £21.61 |
| 3rd M.H. Churton | £10.80 |
| 4th R. Close-Smith | £6.48 |
| 5th R.A. Kennedy | £5.40 |
| 6th T. Cashmore | £5.40 |
| 7th B.C. Williams | £4.32 |
| 8th M. Lumsden | £4.32 |
| 9th R. Selby | £3.25 |
| 10th P. Pounder | £3.25 |

Prize money of £108.05, and a like amount went into BHGA funds.

Please note that seven prize-winners have not presented their cheques. If your name has been in *Wings!* as a winner, and you have not received a cheque by post from the BHGA, please contact the Treasurer as soon as possible.

JULY 500 CLUB DRAW

- | | |
|----------------|--------|
| 1st S Mitchell | £48.00 |
| 2nd R Turnbull | £24.00 |
| 3rd C Papps | £12.00 |
| 4th P Coyne | £7.20 |
| 5th C Morgan | £6.00 |
| 6th T Cashmore | £6.00 |
| 7th J Thomas | £4.80 |
| 8th W Cowell | £4.80 |
| 9th P Harris | £3.60 |
| 10th G Haworth | £3.60 |

£120.00 prize money and a like amount to BHGA Funds.

BUT what about three times lucky **R Turnbull**? How does he do it? April, May and July...

P.G. Moss
40 Moseley Road,
Kenilworth,
Warwickshire

COLOUR COVER

Wings! had a colour cover in May, but it has gone back to black and white. At some time in the near future the magazine will have another colour cover, and again may revert to black and white. It depends on whether someone advertises in colour on the back page at the moment, though we are now starting the first drive for foreign buyers by swapping advertisements with *Glider Rider*. That should mean a regular colour cover.

MEMBERSHIP FIGURES

We're back up above the 4,000 mark again, but that includes family and affiliate members. In real terms, full membership, we are still losing, after raising the membership fees. June following May has always been a bit slack, with gains of 20 at best, and losses of 8 at worst. It's the mid-summer peak. The new members figure is not too bad, much better than last year, not as good as 1977. What's disturbing is the Didn't Renew figure, shedding more than we've shed before at this time.

June	1977	1978	1979	1980
New	147	115	68	113
Renewed	101	155	203	150
Didn't renew	112	93	66	137
Total Membership	3337	3423	3649	4038

LAST CHANCE WARNING

EDGE HILL, N. Westerly Site, Nr. Banbury.

Limitations for Hang Gliding use.

Due to irresponsible behaviour by two visiting flyers coupled with increased crops and animal stocks in all landing fields, the Land owners have instructed the site officers of the Midland Federation of H.G. Clubs to restrict all flying to named pilots only. These must be members of the Midland Federation Clubs and be constantly acquainted with the delicate site rules.

To comply with these 'Last Chance' instructions, Flying Permits have been issued to the only pilots eligible to use this private property.

No weekday flying is currently allowed and eligible pilots will need to show their permits at week-ends.

The Midland Federation request the co-operation of other flyers in this delicate situation as any increase in numbers will result in a complete loss of the site.

Jeremy Byrne
Mercian Site Officer

DELAYS

July WINGS was put to bed on Friday, June 27th. The following Friday, July 4th, the small group who get WINGS by first class post received it. But it took more than another week for the 2nd-class post to get WINGS out to the general membership, July 12th and later. It appears, on enquiry, that WINGS is stacked in the corner as soon as it's delivered to the Post Office at Brighton, and then is sent into the system when it's "stood there long enough" to satisfy requirements for 2nd class post. As WINGS isn't sold on the public bookstand, and its readership therefore isn't audited, we can't take advantage of "printed paper rate". Whatever efforts are being made to cut down on production time, with all the wear and tear this causes, more than 50% of the delay is caused by the Post Office. This is worst of all in the summer months, June, July and August, because so many postal workers go on holiday.

FAIRY GODMOTHER

The latest news from BHGA Treasurer **Percy Moss** about our finances is that the Government-aided Sports Council has been smiling sweetly at BHGA. Total aid for this year, including administration, subsidy for our officers **Chris Corston**, **Barry Blore**, and **Keith Cockcroft** until he retired, and competitions, is £27,201 (\$62,562). Percy says the Sports Council is pleased with BHGA because we actually finance more than 50% of our budget ourselves, which is rare. Our ratio is about 44-56. Some organisations get 90% of their income from the Sports Council.

WINGS HARD MEN

Barry Blore, BHGA Development Officer, is to become the official Wings hard man. That means chasing up advertisements, not to go into WINGS, but as part of an expanding campaign into other disciplines, like gliding, parascending, model aircraft, wind surfing, and hang gliding communities abroad. The Wings Committee looks like being, aside from the Editor, **Ian Butcher**, **Barry**, **Tony Fuell** and **Percy Moss**. The first thing Barry will do is obvious from this issue, and that's to follow through from the *Glider Rider* advertisement to start selling in the USA. The editor would like to thank those who worried, sent in offers of help, said they were available, made suggestions. Thanks.

CENTRAL FIGHTING FUND

We acknowledge further donations to the Fund from the following:-
T. J. Beese, **A. K. Bridge**, **Dover & Folkestone Club**, **Dr. Simon Mitchell**, **S. E. Wales Club**, **G. R. Loyns**, **P. Lewis**, **J. Wilson**, **A. Abberley**.



... **Gyps Fulvus — Griffon Vulture** ... Thousands live in Spain, but one colony in a cave in a box canyon at Orduna are good friends of mine. They ridge soar on nothing and thermal effortlessly in nothing, usually in groups of 10-40.

Three weeks before I left Spain last October I was flying there with two Spaniards. The ridge lift was poor but the sun had been on parts of the ridge. I loaded my pockets with small rocks, took off and flew into the canyon at ridge-top level. Near the cave I shouted, whistled and chucked rocks at the cliff. Sure enough as usual about 10 Griffons appeared. The young ones normally come out first to check us out.

They didn't flap once. They circled to the left of the cave and started climbing. Following

international rules of the air, I joined the thermal and turned the same way. Who needs a vario? Often, one comes in really close and stares you out — they always win. The old big ones have a 9 foot span. I touched one once — he didn't like it. They never attack, but try to shit on you from a great height — literally. Half a pound of griffon shit on your sail is some cleaning job and I've been trying to get my own back ever since (somehow).

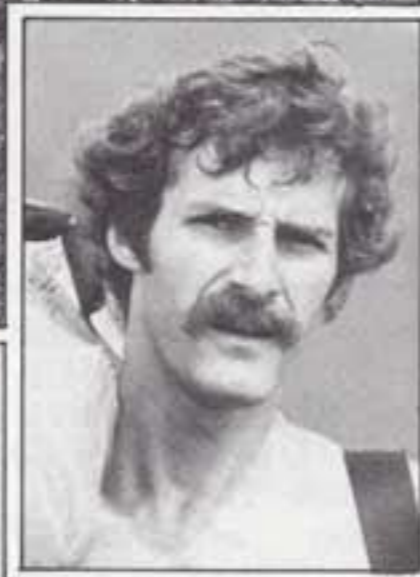
These guys learn fast and use it to keep you away. I have been led into heavy sink twice by a young one, who then flaps back to a thermal with an evil grin on his beak. It's an amazing experience, and a great education. So you think your gryphon's got a good glide angle? Go watch a griffon ...

Alan James

ACCIDENTS

Roy Hill came back from **Kossen** with some statistics, however incomplete, on accidents abroad. They appear to cover the last two years, and come out of a CIVL meeting. There's no word on how many hang glider pilots there are in **Bolivia**, **Bulgaria**, **Denmark** and **Spain**, but each had one death. There are 450-500 pilots in **New Zealand**, with 9 deaths. **Japan**, once said to have 20,000 pilots, is now said to have 5,000, but the big drop isn't because of deaths, just a result of more ac-

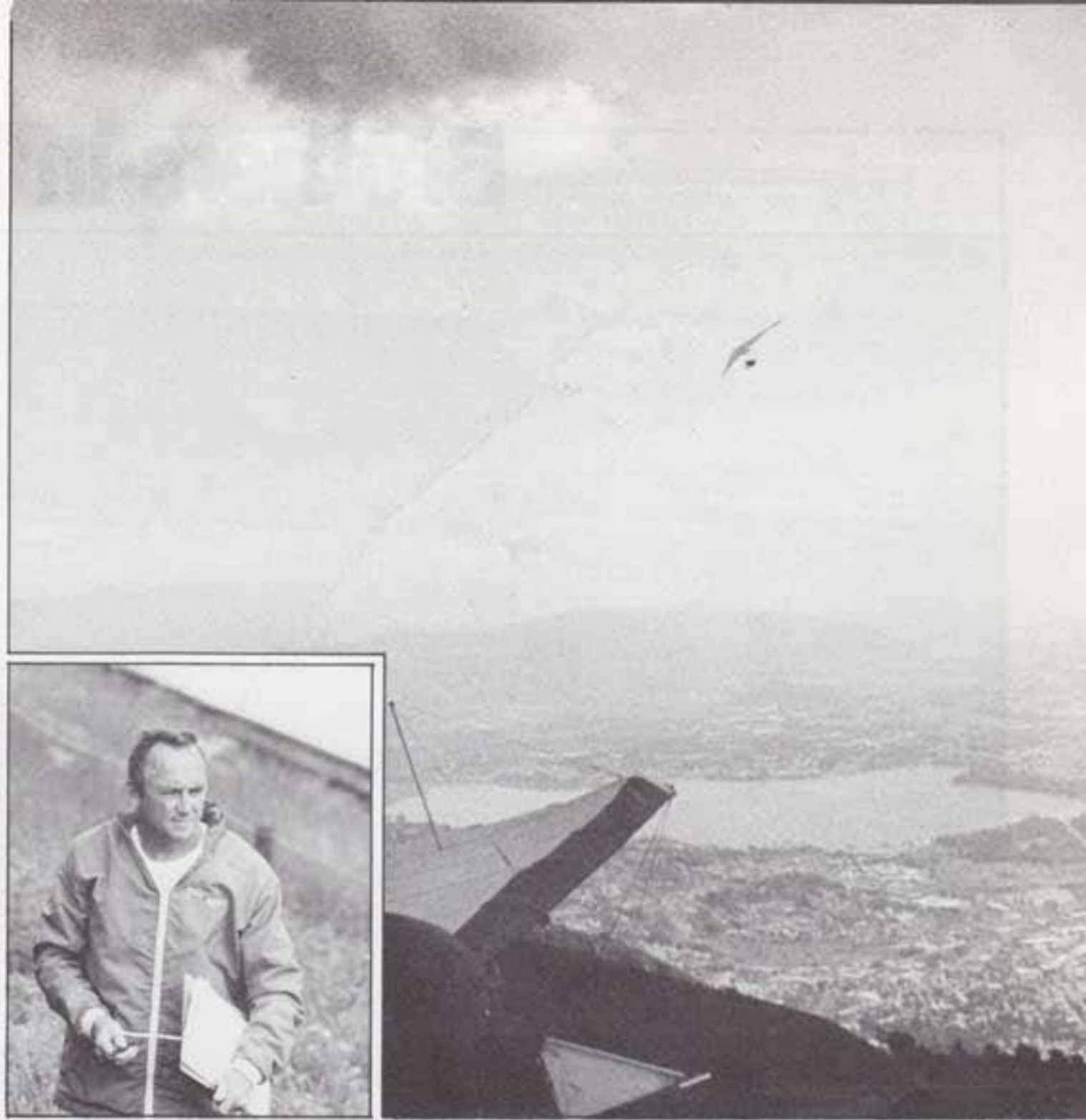
curate counting. In the last 2 years, 9 people have died there. **Austria** has the most startling figures, because there are a lot of flying visitors, with 25 deaths. Regulations are very strict, but not strictly enforced. **Poland** had 5 deaths, **Sweden** 4 deaths in 400 pilots. **Russia** claimed to have 20,000 pilots, but realists say the figure is 5,000, and cynics (of whom there are a lot) say 500. Many **Russian** pilots are into XC flying, although one **Hungarian** disrespectfully told CIVL the favourite **Russian** XC country was ... **Siberia**.



Mark's Italy

This is the Italian XC Classic seen through the lens of regular *WINGS!* photographer Mark Junak, worth the trip, he says, if only to practice Lake-landings (the only bottom landing available).

1. Take-off, marked with a cross.
2. Steve Moyes at the start of 115Km flight.
3. Steve Moyes, eventual winner.
4. Bob Schutte - N. Zealand taking his Fledge off.
5. Looking down the course.
6. Marshall Bill Moyes.
7. Thevenot, who came second.
8. Brazilian Atlas.
9. 10 seconds to splash-down.
10. Pick-up boats.
11. Richard Brown finishing off his last finger-nail.
12. Vulcan touching down on target.



Brothers-in-law V



Tony Beresford up on a Cherokee above Dunstable Ride, with the LGC in the background

DUNSTABLE

by Dennis Munn

Dunstable Downs are the start of the Northern end of the Chiltern Hills. They are approximately 250ft. high, made of chalk, westerly in direction but able to take a southerly or WNW in places. The ridge runs approximately 2 miles, petering out at its southerly end into soft undulations, but passing through Whipsnade Zoo on its way, and the London Gliding Club.

It's a very steep, very soarable hill which can alternate between being nice and horrific to fly. Luton Airport is 5-6 miles due East which makes XCs a problem, if we were given the opportunity.

The Dunstable Hang Gliding Club is faced with three complications. First, that the land we need to operate from is controlled by Bedfordshire County Council. Second, the Downs are a major tourist attraction for people from North London and the surrounding areas, being only 5 miles from the M1. There's only 150ft. between the crest of the hill and a road that's especially busy at weekends which tends to complicate top landing.

The third complication is, of course, the biggest of them all, in that at the bottom of the Downs is the London Gliding Club, the oldest gliding club in the country, with the same place in gliding mythology as the Devil's Dyke or Torrey Pines has in Hang Gliding. It's old, influential, wealthy and expensive to join. On behalf of its members it's also ruthless in its treatment of hang gliding.

We began to fly at Dunstable in 1974 after being banned from another beauty spot, owned by the National Trust, called Ivanhoe Beacon, one of the original hang gliding sites in the country.

Following a pattern described in previous articles, at first we caused amused interest, because with Standard hang gliders, the old bog rogs, getting over the bushes into the fields below was a triumph of skill, daring and luck. But as soaring the ridge became less of a possibility and more commonplace, the gliding club's attitude altered from amusement to refined hostility.

Our flying site is well inside their ATZ (a point of air law that still remains hazy in its legal application). The gliding club began to get increasingly agitated at what they claim is uncontrolled anarchy in the air, and before long they informed us that we were no longer allowed to fly there. The first ban, early in 1975, saw a meeting between the then secretary of the hang gliding club, Dave Yule, and the gliders, in which a set of strict rules were agreed. It was, and remains, a case of *operate these rules or don't fly*.

The rules included a height limit of 100ft. (sic), a limit out from the ridge of 150ft., a maximum of two hang gliders in the air, and a 400yd. stretch of operable ridge. There was a total ban on what were called "high penetration hang gliders", thought to refer to anything better than a bog rog.

The agreement was signed. You might ask why? We were new, we weren't very respectable in sporting terms, all we really wanted to do was fly, and . . . we hadn't any option. The Gliding Club, highly organised, had already made its case to Bedfordshire County Council, and a bye-law passed in 1940 governing the activities allowable on the Downs was invoked. The Council told us they intended to amend the law to control hang gliding. They weren't going to ban us, note, just ensure there were controls, and in the meantime we had temporary permission to use their land.

Even in those days we always had trouble getting hang glider pilots to conform to the ridiculous limits agreed originally, and tenaciously held to by the Gliding Club even though Dave Yule is long gone. The more we learned about flying, the more those rules were broken - you can gain more than 100ft. in 10 seconds on take off! And, of course, invoking that agreement, the Gliding Club banned us again.

We always argued, and we still argue, that the restrictions imposed on us - especially the height limit - were making flying more dangerous for both us and the conventional gliders. We mix it extremely closely at certain times when soaring the ridge with a pretty consistent stream of gliders.

The Gliding Club argue that by keeping us in a

tight little corridor they know where we are exactly, and therefore life is safer for them. The fact that they fly in that corridor doesn't appear to be important. They have also been asking us, for years, to prove we can control our members within these fine limits and one day they will consider increasing the limits. We are now in the seventh year of them "considering" these limits

We always have had tremendous problems as a club in convincing our members and fellow flyers to stay within these restrictions. With 40 pilots on the hill, and a flying limit of 2, you can imagine the frustrations that soured these occasions. As the criteria the Gliding Club used to drop the restrictions was our enforcement of them, and as our members felt they were ridiculous, we've never moved from first base . . .

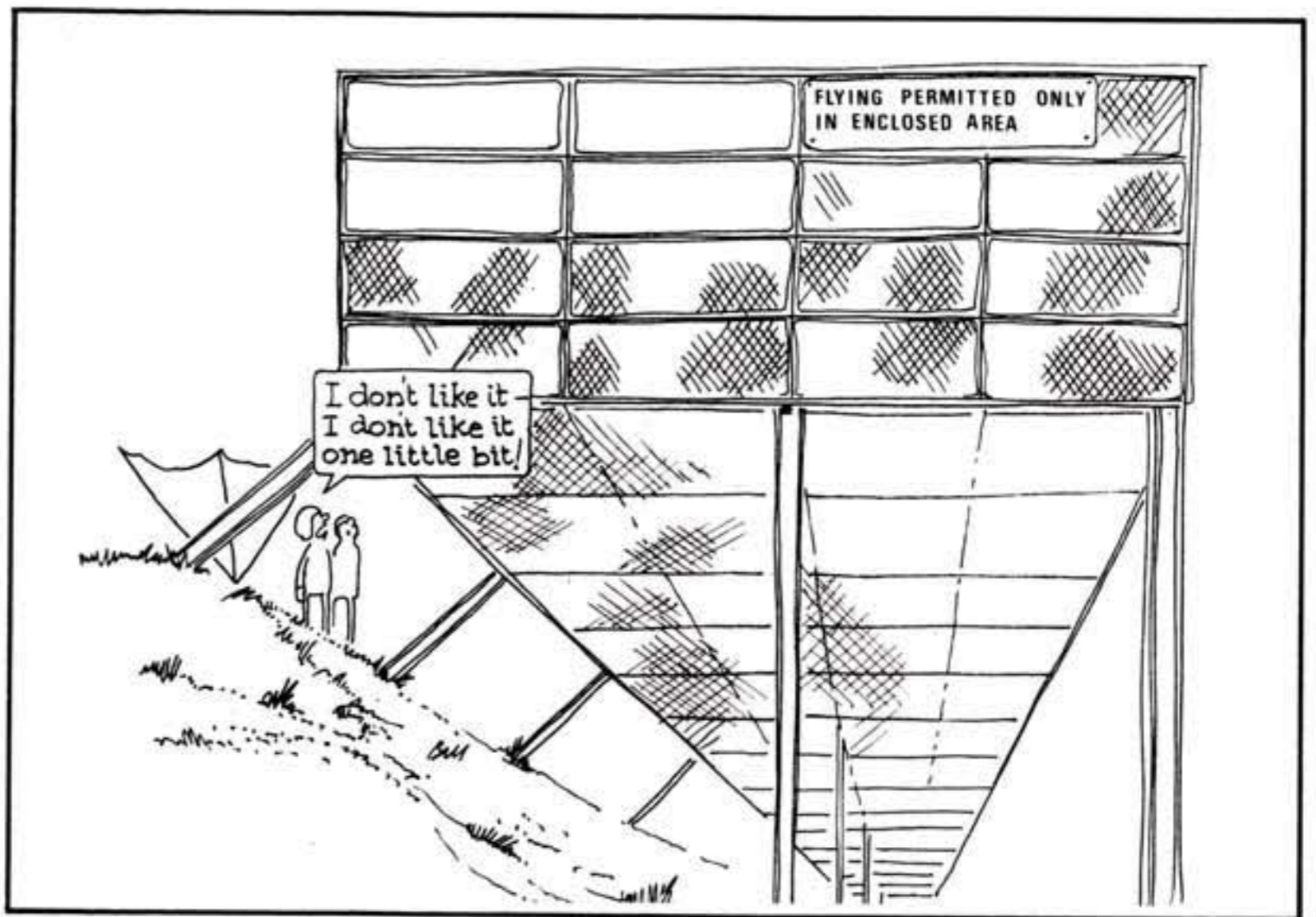
In the meantime, Bedfordshire County Council were formulating their proposals to control us, based on their responsibility for guarding the safety and interests of the public. The person in charge of the Council's planning for the modified bye-law was Roger Evans, from the Arts and Recreation Department. He had been involved significantly at the Butser Hill negotiations, near Petersfield, where Sussex Council was thinking of banning hang gliding. In his contribution, based on his Dunstable experience, he said that if hang gliding is properly controlled and managed there is no reason it shouldn't flourish!

One of the mistakes I think we made as a club was that we didn't attach enough importance to keeping in touch with the local Council during the time they were formulating the new bye-laws. We might not have been taken so much by surprise when it was presented to us.

In October, 1978 the new bye-law slipped through the letter box. As you can see, it comprised all the original restrictions plus a host of new ones that put us in a strait jacket so tight it strangled us as a club.

There were two important points of principle that appalled us. First, there was no flexibility to allow for changing weather conditions. No leeway, just unbending law. Second, we now had a bye-law in which a local authority remote from the hill itself decided the rules of the air. Surely this couldn't be legal? It appears so.

When a meeting was arranged to formally sign the bye-law, to be attended by the Gliding Club, the Council, the Police and, yes, us, there was panic stations and phone calls to BHGA National



officers to get guidance. They said don't sign. We didn't. We asked for a month to reconsider and were banned while we did so.

There were six weeks of deliberations at BHGA Council, but they failed to come up with experts to help our case. This is my one criticism of BHGA. Chris Corston did a hell of a lot of work on our behalf but we never got anywhere. At another meeting with Bedfordshire County Council, with John Hunter representing the BHGA, we tried to modify the authorisation, but without success. It was legally watertight. When asked for help from the CAA, to arbitrate, we thought, maybe naively, they politely refused. We're still not certain of all the points of air law used to restrict us.

We were left to decide whether to sign, which would at least get our members flying again, or to hold out, fly anyway, defy the authorities. Civil disobedience and all that. We signed.

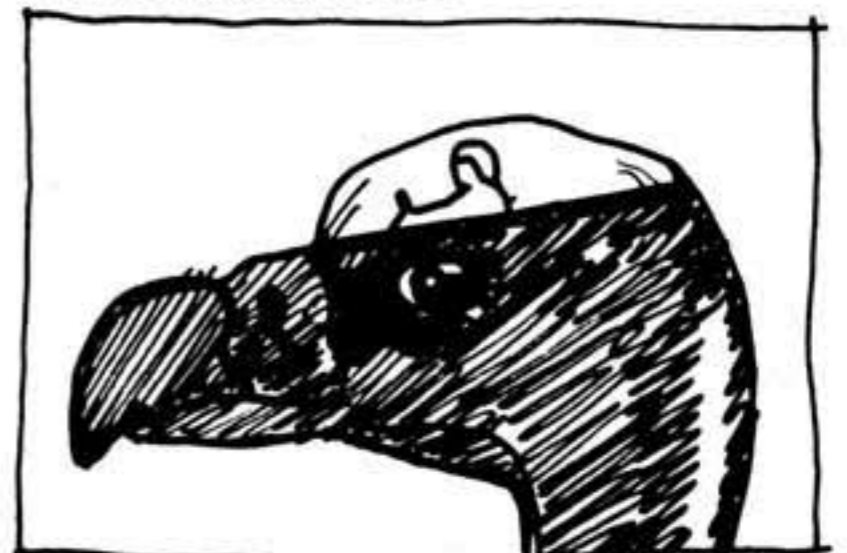
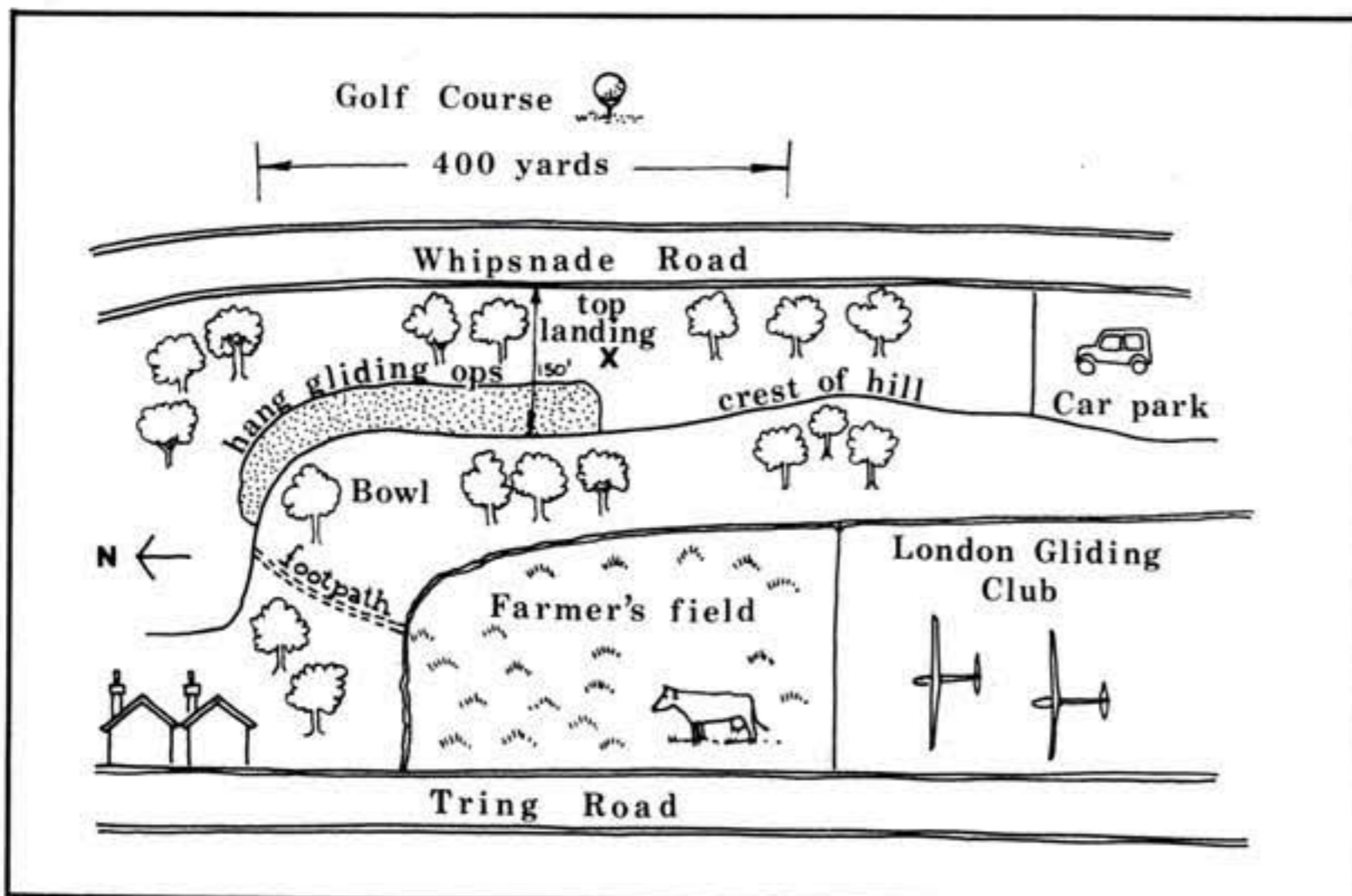
We put it to a meeting of our club for endorsement - boy, was that a stormy meeting! In the end, though, we got endorsement.

Our philosophy since then, bearing in mind that the authorisation is renewable yearly, has been to try and get the bye-law changed constitutionally. We have worked to improve our public image, and to continue to impress the London Gliding Club that we should be considered as equals. There may now be a chink of light. Bedfordshire County Council say they will change the restrictions as long as there's agreement between the LGC and ourselves . . .

We have improved our relationship with the LGC in the last year. They haven't been legalistic enforcing the 100ft. height limit, and instead have allowed us 1,000ft. They also seem to show some appreciation of our flying skills. We've asked for two concessions. First, we'd like to operate without restriction when the LGC are not flying, normally before 10 o'clock in the morning. By the time this article is published this should be in operation. Secondly, we want to change the restrictions on a day-to-day basis, by means of signing a form to be produced to the Council ranger or police on demand.

Progress is painfully slow, but Dunstable Downs is the only good soarable Westerly site for about 80 miles around, and for all its problems, it's extremely popular. We want to keep flying there. If we remain the eternal optimists, it is simply because . . . we haven't any other option.

As a postscript . . . strike those words about improved relations with the LGC. It looks like we're misquoting. The LGC's flying chairman has just sent us a letter taking us to task for embarrassing him, by flying more than two up, and at heights greater than 100ft. He says any new moves are totally pointless. It's like watching the umpteenth repeat of a bad play, and to feel helpless to do anything about it . . .



Second Wellesbourne Power meet Tony Fuell

I counted about 25 craft in the rigging area on Sunday afternoon, certainly more than have ever been assembled in one place in Europe so far. Apparently about 40 were there at one time or another. The weather was mainly good; some heavy cu's on both days, and some storms. Winds were light and variable, mainly W.S.W. Most of the BHGA notables were there: Hill, Hunter, Spooner, Bailey, Ievers, Moss . . . Steve Hunt, Brian Harrison, Southall . . . about 500 people both days . . . broken even (at least) on costs . . . Birbeck . . . Greyland Weeks . . . the Facks . . . Murray Rose . . . even Nick Regan (who wore a CRASH HELMET (!!)) while flying - wonders will never cease!). The meet was organised by Dave Thomas, his charming wife, and Paul Baker and Dave Garrison of the High School . . . Steve Hunt looked after most of the flying side, but they were very short of ground marshalls both days. All the hg pilots there wanted to either watch or participate . . .

The organisation dealt efficiently with a lot of air traffic, including several light aircraft and a Falke who gave an impromptu aerobatic display before joining the pattern . . . But ground-to-air signalling was very poor: there were several long periods when the organisers were desperately trying to clear the ultralights out of the way to let the conventionals land-on or take-off . . .

CATTO

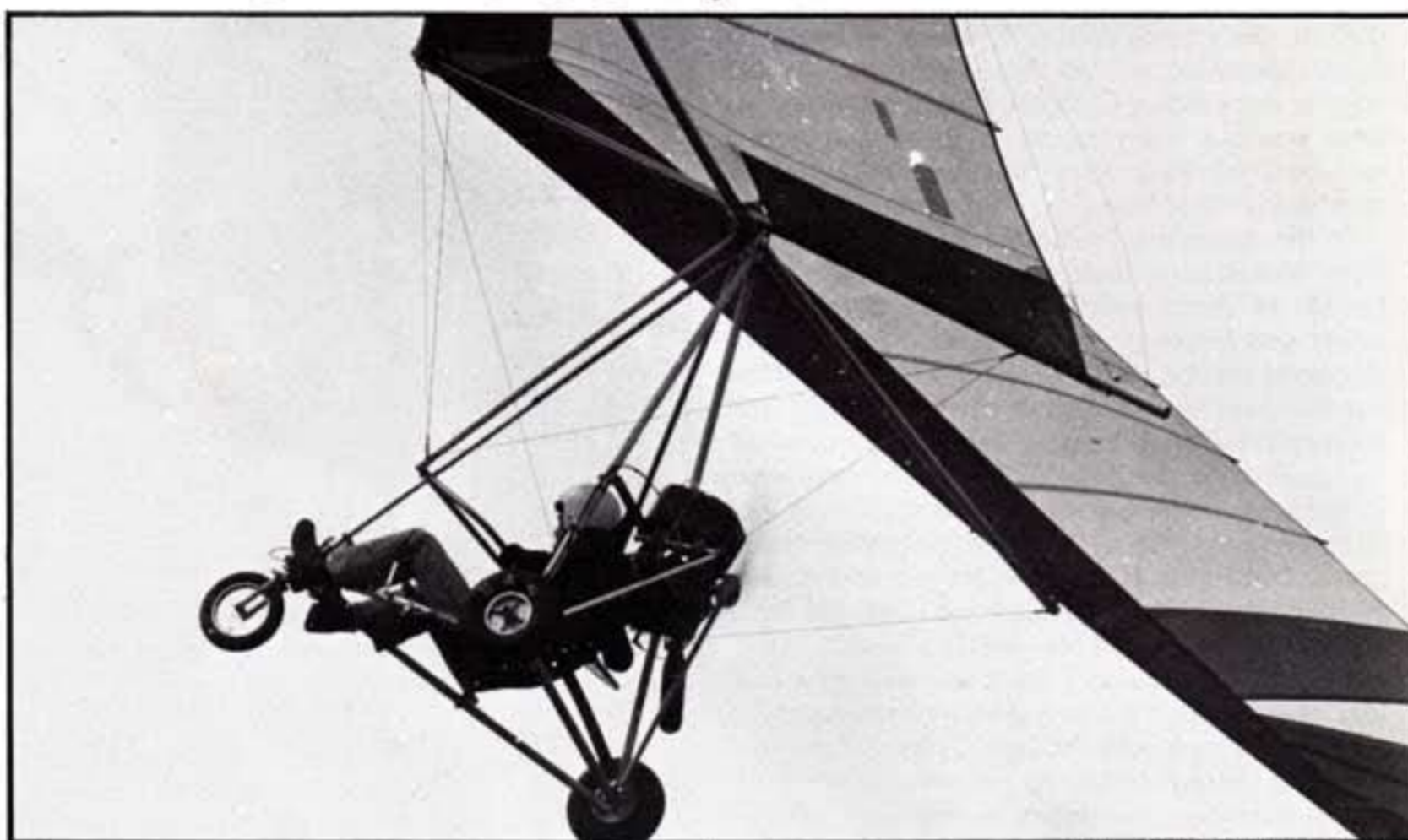
Craig Catto was there with his new craft. Built in a few hours the night before, he had a few low hops on it before a ding damaged it. Cause of the accident (one of only 3) was said to be that the angle of attack was incorrectly set . . . Craig said that the meet was very interesting and impressive, although much more flexwing orientated than the USA meets . . .

Accidents — one to Catto, as above . . . one to a Skytrike (Dave Thomas's) flown by Mick (Captain Birdseye - SHGC nickname - dont ask me why!) Steer . . . lost the decompressor plug shortly after TO, it went through the prop. Losing power, he tried to turn back to the runway (error) . . . and lost it at 25ft., bending the undercarriage and writing off the prop as it hit the ground . . . this caused the organisers to read the riot act to participants. Apparently, Hiway had said that only persons with previous flight experience would be allowed to fly the Skytrikes . . . Mick hasn't had a lot of flying, even on hg's, and was new to power . . .

QUICKSILVER

Third was a powered Quicksilver . . . just as George Worthington said in the June issue of *Wings!* - these look underpowered, and go in for hairy take-offs and landings. After one short hop in which the pilot only just had control, he took off again, gained a minimal amount of height at the end of the runway . . . couldn't get enough to turn, and landed straight ahead into the hedge. No injuries to pilot or glider. I don't like powered quicksilvers . . .

Otherwise, considering the very large amount of flying that was done, things went very well. They had a bit of trouble in getting people to conform to the circuit pattern . . . having been well and truly bollocked by Paul Baker after my first flight, quite early on Saturday, for cutting my approach a bit short. (I WAS dead-stick, I might add). I was a bit pissed off to see people committing the most heinous sins later on in the day, with



Solar BUGGY, Nick Wrigley

apparent impunity. These included flying low over the crowd, overtaking people on final approaches, taxi-ing up the wrong side of the runway, etc., etc. This will need to be tightened up at future meets

PTERODACTYLS

A VERY IMPRESSIVE dogfight display on both Saturday and Sunday by Paul Baker and Dave Garrison . . . on Pfledges . . . can see why the airshows love 'em . . . Lots of Pfledges on display . . . most hg pilots just a little bit cautious about this aircraft . . . very good performance, and controllability . . . but there's SOMETHING about them . . . they are still unacceptably noisy, mostly prop noise (direct drive props) . . . but sufficiently penetrating to be loud - to the point of interfering with conversation on the ground - a half a mile away, when they're on full chat . . .

Other Fledge derivatives were there. The most interesting was Alan Weeks' *Soarmaster/Fledge*, which he flies (unpowered) in the South every weekend. Fitted with a hairy-looking small set of wheels, and a tail-wheel, Alan takes off prone, and lands on his feet. He had several flights over the weekend, under some big cu's, reaching 2,000-3,000ft. on most of them. The Fledge in this form is obviously practical for the pilot who wants a hill-soarer as well . . . But the pitchover problem? Alan doesn't think so . . .

Steve Morris had another prone rig, a sort of pronetrike powered by a Still (German chainsaw) motor. This was distinguishable by the fuel tanks which lie on each side of the pilot's hips as he lies attached to the harness. This unit, attached to a Chargus Vortex, produced a good climb rate, and was obviously highly manoueverable, but I'd be a bit cautious about some of its safety aspects . . .

HIWAY SKY-TRIKE

Undoubtedly, the success of the meet was the HIWAY SKYTRIKE unit.

Hiway had seven units there. They were in the air almost continuously during the two days of the meet, with great queues of people waiting to have a go. Mechanically they seem to be well sorted, and only minor problems arose, most seriously the loss of a decompressor plug.

I flew them on several occasions, including once on Saturday evening, which will rank as one of my most pleasant experiences ever. Floating round at 1,500ft. over the green Warwickshire countryside, looking at a great big rainbow downwind of me, the Superscorp is nice with this unit, but the Vulcan (perhaps surprisingly), is better. It is distinctly faster (about 7-10 mph with the same unit), and to my mind handles better as well, being more roll sensitive. But not everyone liked it. It was harder to land than the Scorp, and was more pitch-sensitive, particularly in turns. You had to get it right. The Hiway units probably represent the most workmanlike unit currently available. The standards of finish are very high, the props are BEAUTIFUL, and the reliability probably as good as you are going to get with units this small.

EAGLE

Brian Harrison of Eurowings and several of his crew were there, with the Eagles. They had some bad luck with the motors, and despite a lot of pit activity, didn't do a vast amount of flying. Dark mutterings were going on about the state in which some of the units had reached the UK, and the general availability problems. But the Eagle is now well established as one of the big-selling ultralights, and the twin-engined (Soarmaster) version has clearly sufficient power to make it a practical proposition. Whether UK pilots will feel that it is worth the high price has yet to be seen . . . SOMEONE must be interested; they claim firm orders for over 30 . . .

The Eagle's unique canard configuration intrigued the spectators, and the pilots had no trouble in demonstrating its unstallability. Push the bar

right out and hold it, and you get a gentle porpoising motion, with no tendency to drop a wing, or mush out. This obviously makes it a very safe ab-initio trainer. The control yoke operates tip-draggers (roll/yaw), and the movement of the pilot's weight in a fore-aft direction, as well as affecting the CG, also operates a moveable control surface on the trailing edge of the canard wing, giving pitch control. It is said to be a very sweet ship to fly. I wasn't able to try it, but I have seen Gerry Breen really wring it out, so I have no reason to doubt the statement . . .

CHARGUS TRIKE

MURRAY ROSE of Chargus turned up on the Sunday with two seated-type trikes, one powered by a 225cc Kioritzu motor, and one by a 244cc Fuji Robin, which is said to develop 18.8hp at 6,000rpm. These trikes were very impressive indeed — probably the best-engineered of any present. An interesting feature is the use of a 3-bladed prop . . . Murray says this is to give more clearance from the glider structure, and to enable the use of a high aspect ratio blade, with consequently greater efficiency.

Another nice feature was the use of spring-loaded dampers on the steering wheel of the trike. These looked, as some observers remarked, like bits off Cyclone wingtips, and contributed markedly to the solidity and stability of the trike on taxi-ing, and landing. Some of the Hiways,

which don't have this feature, were tending to dart about a bit as the front wheel touched down, if the pilot had let the wheel get out of line . . .

But, again, the engines were very new, and not run in . . . Murray was being cautious, and the Chargus units only achieved one or two flights on Sunday afternoon. They seemed to go up OK, but the Hiways were going up better . . .

SOLAR BUGGY

Nick Wrigley and Les Ward were there with the new SOLAR BUGGY, another seated trike based on the STORM glider. This was powered by a 20bhp 2-cylinder 400cc Snowmobile engine - they were very reluctant to give out any more details than this - turning a direct drive 2-bladed prop.

This unit was the only two-person aircraft there, and attracted a good deal of attention on that score alone. They, too, had some bad luck early in the meet when, having re-jigged the geometry of the trike before rigging it, they found that the prop blades fouled the rear rigging wires of the glider . . . OUCH! They put the spare prop on, and found that the same problem still existed . . . CLUNK! Eventually, they bought a spare prop from the High School Pledge stock, and got it airborne. It flew very well, but was suffering from the direct-drive noise syndrome. On Sunday, they took up Rodney Nickell, who many early BHGA

members will recall was the first spinally-injured HG pilot in the UK. Rod was thrilled with the flight, his first since his accident. Chris Corston was equally impressed, and remarked that the Buggy set-up really did seem to offer a way that a disabled pilot could get into the air again . . .

The SOLAR BUGGY itself seemed to fly OK, but some of the BHGA personnel were shaking their heads about the safety margins on a 6 g-stressed machine carrying TWO people, plus the not-insignificant weight of the trike AND a largish motor unit. In the air, it was quite obvious that the leading edges were being made to work quite hard for a living. To be fair, I don't know whether the airframe had been beefed up or not, but I sure hope so . . .

ASSORTED OTHERS

Several other pilots and gliders were there. A Weedhopper sat in the pit area on both days, but I didn't see it fly. Several Soarmaster-equipped flex-wings turned up, but the only one I saw fly was Ashley Doubtfire's Cherokee, also fitted with a pronetrike sort-of set-up . . . steered by differential brakes; he provided some entertainment when the tailwheel fell off while taxi-ing out, and he lay on the runway laughing . . .

Altogether, a laidback, pleasant, weekend. It needs to be done again.

Soon.

An account of a crosscountry flight from Tredegar, Gwent to Wellsbourne by Frankie Tarjanyi and Gordon Faulkner

Three weeks before the Wellsbourne weekend, Gordon and I decided we would attempt to fly there on Hiway sky-trikes. We decided not to plan too far ahead, so that we would not be disappointed in case the weather was against us.

Come 7th June, I had set the alarm for 4.40 a.m. After a look out of the window and seeing a moderate N.W. wind blowing and low cloud, I decided to go ahead. We arrived at the Hiway factory at 5.10 a.m. and whilst I rigged up my "C" I sent Barbara, my wife round the corner to drag Gordon out! By the time he arrived I was rigged. Gordon had already rigged his Vulcan the night before.

After checking things over, planning our route and arranging signals for landing etc., we finally took off from Sirhowy Hill at 6.30 a.m. waving goodbye to Barbara who followed our progress for the first couple of miles.

We headed off towards Crickhowell, avoiding flying down the lee of the mountains in the freshening wind. From Crickhowell we flew to Abergavenny, then between Abergavenny and Monmouth we encountered some vicious turbulence which we thought was due to the Black Mountains.

We joined the A40 at Monmouth (above it that is!) and carried on to Ross-on-Wye. We had arranged to follow the road as far as possible, so that if one of us should break down, we would just wait by the road for Barbara in the van — as she was driving to Wellsbourne an hour or so later on.

We landed in a field next to the Motorway Cafe near Ross-on-Wye at the beginning of the M50. We went in, had some breakfast, and bought some petrol which took about an hour. When we came out the weather had improved, it was now bright, sunny and quite pleasant. We then took off and headed along the M50. The going was nice and smooth except for the odd bumper of a thermal. Two miles from the M5, we saw Jim Bowyer and John Ievers waving to us from the hard shoulder. We crossed the M5 and cut across land to Evesham.

Frankie's XC



Then I looked behind me and Gordon was gone! I flew round and round in circles but unfortunately I couldn't see him. So I decided to land in a school playing field. I topped up with petrol, got my bearings then took off again and circled round a bit more. I then headed of N.E. towards Stratford, not knowing where Gordon was. Suddenly I caught a glimpse of him several miles to the left of me. I altered my course to try to rendezvous with him. As we met up, I noticed a glider field just below me and I signalled to Gordon to land (it was called Pepworth Gliding Club). We had a chat to the glider pilots who seemed very interested in the Trikes and Gliders and they were all very impressed with our nice shiny mahogany props. The reason Gordon and I lost sight of each other (on which we are both agreed) is that if there are buildings on the horizon behind the other glider you cannot see him, (the glider is well camouflaged).

We took off waving goodbye to our friendly fellow aviators and headed off as fast as we could towards Stratford-upon-Avon. We arrived over Stratford in next to no time, and from there we could see micro-lights at Wellsbourne Airfield. So we opened the throttles completely and pulled the control frame right in, this achieved a ground speed of 45 mph plus.

We arrived over Wellsbourne Airfield a few minutes later at 10.30 a.m. I made a note of the circuit which was being flown by another trike flying there, slotted in behind him and came into land, feeling really pleased with our achievement.

Just then my van came tearing up the runway with my wife behind the wheel (she had just arrived). She dashed over and gave me a welcoming kiss!

Gordon landed beside me and we were given a warm welcome by fellow pilots who were surprised and pleased by our successful 80 mile cross-country flight!

The whole trip was tremendously exhilarating, very comfortable and not very tiring. In fact I am looking forward to my next cross-country flight!

The trip took 2½ hours flying time, and we used only 2½ gallons of petrol. This was cheaper and more enjoyable than driving up.

SCOTTISH OPEN



Colin Lark, the Avon Club Chairman, is the new Scottish Open Champion, taking the title from last year's winner Bob Harrison – *in absentia* – and fighting off a strong challenge from the two-time Scottish Champ, Robert Bailey. The longest flight of the competition (a new Scottish record), which was almost all cross-country, was made by Jim Brown, the man who wrote the inside story in last month's WINGS on the Rose Competition, and top wind dummy for the League. Sandy Fairgrieve, who had the Scottish distance title last year, was just pipped by little more than half a kilometre by Jim.

Sandy Fairgrieves writes about the big flight on the first day . . .

. . . Everyone was going down on Saturday until Jim Brown made it back to cloudbase from close to the valley floor. All those who took off and attempted to soar the Cairnwell never managed more than 50' ATO, and there appeared to be little, if any, thermal activity there. I saw many more kites thermalling across the valley where Jim had picked up his one, and when a dark cloud began to grow over them all I knew where I was going to go. I finished rigging, did a few beats to gain any lift there was, and headed off across the valley. There was fairly heavy sink, but I ignored it, pressed on, and duly felt the air get bumpy. I recognised Colin Lark above me but the others I didn't know. I thermalled to cloudbase and pushed on downwind, heading for Mount Blair. The sink was reasonable, but I doubted I'd reach my objective. Colin appeared again, 360ing, looking like he was going up. I was in two minds whether I should change course, but if it was a good thermal I couldn't afford to pass it by. In any case, the two of us would stand a better chance together than alone. I joined Colin but was disappointed with the lift – 0 up, maybe 2 up – it wasn't going to take me to cloudbase. We left it and spread out to increase our search potential, but there was little to stop for. I spotted two kites soaring a ridge – Glenista – and headed for them to wait for my next thermal.

One of the kites was Jim Brown on his Atlas (I don't know who the other was). We scratched for ages in rough air. I daren't get any closer than 50

feet to the hill because the sink was so severe I would have hit the ground before being able to glide away in time.

We were all beginning to go down when a really strong bit of thermal came through. A bit like Lachens, this is, I thought, as I banked up to 70° plus, still only a hundred feet off the ground. I soon had a steady 8 to 10 up, and looked up to see what was causing the incredible lift. It was very black, obviously overdeveloped. Still, it had to take me to cloudbase, where Jim Brown was already, and we messed around until Colin joined us. Down to three now, a good number for a joint XC.

I wanted to stay in the mountains for their greater thermal potential, and since the darkest cloud stretched along the side of the mountain, that was the way to go. I think we were flying the edge of a rain front, maybe a Cu-Nb or something. I couldn't believe a sea-breeze could have caused such convergence. Whatever the reason, the lift was so good I could pull speed through it. We had to at times, for we were all nearly sucked into cloud.

At last we came to the end of the rain front and out over flatlands. It was now a glide to landing from 5,200' ASL, since the sky was overcast, and the ground soaked from heavy rain, there was, predictably, no more thermal. We landed beside a main road just outside Forfar at 2.50 pm. Colin landed beside me, but Jim flew on to a less accessible field to beat us. We walked to some cottages to get witnesses, and a retired couple invited us in for tea, cakes and the Wimbledon championships on TV, the Borg/McEnroe final beginning as we sat down. Why else would we land? . . . it was now raining steadily and there's no way the Bailey is going to catch us today . . . 26 miles, 41 kms . . .

Geoff Tabbner, flying a Skyline, from the Avon Club, wrote this about the third day . . . Everyone was following Bailey around the top of the mountain as, with the aid of several different pairs of sunglasses, and twitching nostrils, he strode from one side of the mountain top to the other, sensing for thermals. He clipped in, I could see the patch of sunlight he'd been watching, and I could see he was about to launch. I was ready behind him. Just as he took off into the thermal, the tail wind spun me round and row upon row of parked kites ground-looped. If it hadn't been for two of the Yorkshire lads grabbing my wires I would have followed Bailey . . . upside down. Those who were unaffected lobbed off in serried ranks like lead balloons, as he spiralled upwards to cloudbase whooping for joy. So that was the master in action!

Those who were impatient and unlucky or unskilful launched and had a brief 1,600 foot top to bottom flight. Most of us waited until the deadline, just before 2 o'clock. I was concerned about a tear in my sail at the leading edge, but on consulting Derek Pavey, he suggested I look at Sandy Fairgrieve's machine. I felt better immediately. Sandys sail resembles a hairnet held together by adhesive tape. Perhaps this is the secret, I thought to myself, of good thermal flying?

Just before 2 o'clock we all took off and I was quite pleased to reach cloudbase, until I looked around to see nearly everyone up there, including someone seated on a standard steaming up with

the nose almost vertical. How frightening! It was incredible to see so many people having the time of their lives.

After a short flight through a rainstorm, pursued by Ian Curren who outglided me on his Cyclone, avoiding all the sink that I located, I landed beside Jim Brown who had just completed his second flight of the day. As we packed up Jim spotted two kites circling in the distance. "I bet that's Colin Lark," I said. And it was, on his second flight, and going for another good distance. He ended up on his own, following the only road he could see into the depths of the Cairngorms to avoid air space over the Queen's Scottish retreat at Balmoral. When the road came to an end he wound off 4,000 feet over Derry Lodge and then ran 4 miles down what proved to be a gated track to telephone in his distance (in the nick of time!), 11¾ miles, to become the 1980 Scottish Champion by just 5 points from Ian Curren.

What a fabulous weekend's flying! On behalf of the Avon team, our thanks to Simon Ogston (*the Scottish Competitions Chairman, on his first competition; we'd never heard of you, Simon*) and his helpers for organising the weekend and the weather, and to the landlord of the Spittal of Glenshee for his hospitality. We'll be there next year. To the Yorkshire lads . . . I wouldn't bother challenging Avon if I was you . . . you don't stand a chance . . .



Longest Flights at the Scottish Open, Glenshee, July 4/6

Name	Club	Glider	Distance (kms)
Jim Brown	Dales	Atlas	41.7
Sandy Fairgrieve	Northampton	Cyclone	41.0
Colin Lark	Avon	Vulcan	41.0
Peter Hargreaves	N Yorks	Cherokee	25.9
Donald Carson	Osprey	Gryphon	25.5
John Stirk	Dales	Storm	24.5
Gustav Fischnaller	Cairnwell	Wills XC	23.6
Dick Heffer	Avon	Cherokee	21.6
Robert Bailey	Dales	Atlas	20.7
*Colin Lark	—	—	19.0
*Sandy Fairgrieve	—	—	19.0
Paul Frain	—	Atlas	18.7
Ali Milne	Angus	Sigma	18.1
John Rankin	Cainwell	Wills XC	17.6
*Paul Frain	—	—	16.2
Ian Curren	George Cayley	Cyclone	15.5
John Bowman	N Yorks	Cyclone	14.6
*Ian Curren	—	—	13.6
*Donald Carson	—	—	13.1
Donald Mackenzie	Lanark	Cherokee	13.0

Total distance flown over three days, in flights of 5km+, approximately 800 kms.

*Second flight

POINTS – TOP 10 Scottish Open

1	Colin Lark	338
2	Ian Curren	333
3	Sandy Fairgrieve	332
4	Jim Brown	314
5	Robert Bailey	257
6	Donald Carson*	250
7	Paul Frain	249
8	John Stirk	227
9	John Rankin*	199
10	Peter Hargreaves	196

*Scottish

ICARUS ALL SORTS

... finally discovered the name of **Supernok** from the magazine of the Devon & Somerset Condors. **Mike Atkinson** told us all the story, but we couldn't find the pilot's name. **Robin Mills** was a member of the British Parachute team that went to California last year and won the World Championships. Robin, said to be able to ridge soar a hill in a parachute, recently took up hang gliding, and his progress has been phenomenal. On his **25th flight**, already prone, he took off from a training hill called Manaton, near Bovey Tracey in Devon, and in the company of another pilot, **Carl Tonks**, made a 15 mile XC. Robin made his first 360s on that flight, landing close to Dartmoor Prison. To cap his luck (and skill) he managed a lift back to take-off by a tourist who was able to strap his glider to the roof-rack. **Johnny Carr's** been wondering if Robin hit a British Standard Thermal, the sort you can fall out of, but 15 miles on your 25th flight, and that behind the hill and not along a ridge, must mean a budding **Calvert** is being weaned down in South West England...



Johnny Carr

...ladykiller **Graham Slater** will be appearing on our hills naked to the face for the next month or so, as a result of a sordid financial transaction, the sort we'd all like to be involved in, netting him about a grand and expenses for 4 days' work. Graham's having to cut his beard off to play former Mogul actor **Ray Barratt**, who normally flashes around the sky in a helicopter pushing the virtues of Barratt's Houses. Graham will be towed up numerous times in his beardless Barratt guise, and the attractions of the job are great enough to tear him away from the third day of the Fifth League competition near Bristol. He's praying for rain...
 ...**Steve Hunt** reminds us that the Wellesbourne Meet in June was organised by the BMAA, which, he says, is thriving. As he was kind enough to send WINGS photographs which were badly needed for Tony Fuell's article, who would dream of arguing?...

...**John Hudson** phoned in to say there's a new unofficial World Record just been set, on July 21st, by two Americans at Owens Valley. **Larry Tudor**, flying a UP Comet, and **Tom Crecha**, flew from Cerro to a place called Basalt, a distance of 110 miles (176 kms). Tom was apparently carrying a barograph, but he hadn't signed it out, nor had he notified anyone he was going for a record attempt, so **George Worthington** breathes easy again...

...have you heard about Wessex HGC member **Peter Robinson**, who went XC with his map north of the Isle of Wight? He was at 3,000' and a bit worried about air space, so he pulled his map out of his back pocket to find out where he was. Satisfied, he tried to get it back in again, and dropped it. It unfolded and began circling with him on the opposite side of the same thermal. It was said he made vain efforts to reach the map before it dropped out of the side (Obviously hadn't got the XC experience Ian had, and wasn't going to hang around long enough to get it). Wonder what a punter thought watching this map thermal gently to the ground?...Ian went on for 20 miles altogether, and didn't break air space...

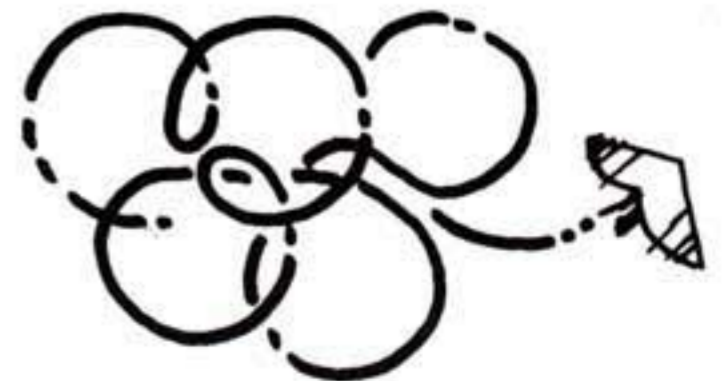
...waiting for someone to market a lovely little German toy that the model gliders use. It's an electronic box with two arms and a motorised graph which plots the wind speed and temperature wherever you set it. Place it on a hill and you can watch the thermals coming through. A quick note of the pattern that occurs before a thermal and then we would all be able to stop cultivating a nose like **Calvert/Bailey/Cockcroft/Hargreaves/the Facks**...Lawd, what a thought...

...green faces for **Jeremy Fack**. The BBC, besieged by nasties who won't let it play music, or who demand more licence money at telly-point, has still dug up the funds to sent Jerome, fresh back from Japan, on an all-expenses paid trip to East Africa for three weeks, with specific orders to get lost among the great birds with a camera on his kite to photograph them for a wildlife film. Not only are the fellow's expenses being paid, but he himself is going to be fingering the fair green stuff as well for that "job"...

...whatever happened to **Peachy**, and **Hardman**? The editor was looking forward to Peachy's blandishments to get into print again, and found she'd disappeared. She'd never gone XC, never got into the League, never fulfilled all those fantasies about two up at a grand trying to make three...come back, Peachy!...all is forgiven...



...**Keith Cockcroft**, still trying to get a World distance record in Owen's Valley, California, may have knocked off the absolute height record with his flight up to 20,750 feet, and that without oxygen as well. The absolute record is open for grabs at the moment, and Keith was wearing a barograph. Fingers crossed for him, **Jo Binns** and **Bob Martin**, struggling away out there. Keith has twice flown 63 miles from Cerro Gordo, and been drilled at West-guard Pass, a 5 mile gap that's difficult to cross. It's said you are guaranteed a 90 miler plus if you do get across...



...talking of the Olympics, who wants hang gliding to be an Olympic sport? **Ann Welch** doesn't. **Mick Maher** does. Ann says Olympic politics are dreadful. Mick says we can't stagnate, we've got to move. What do you think?...write to Stan Pottinger...



Gerry Breen

...**Gerry Breen**, who is due to set out on August 11th from Lands End to John O'Groats, racing against three others on trikes, says he isn't too disappointed that **Dave Garrison** and **John Leigh-Pemberton** have taken off ahead of him to make the trip. Gerry's trip is for charity—the **East African Emergency Appeal**—and he's still open to sponsorship, all money going to the appeal, either per mile, or in multiples of 5 miles. Originally planned for July 14th, Gerry put back the trip a month only to see Dave and John steal into the Daily Express with their Pterodactyl take offs and a good following south west wind on July 22nd. Like Gerry, these two want to make an annual event of it...

...verbatim account of a conventional glider pilot, talking at a lecture given by the wife of a hang glider pilot, when the subject of hang gliding came up...
 "You know, those hang glider pilots, they get those kites and they hurl themselves off the hill. They don't know what they're doing, haven't the faintest idea. I do admire them people, but they don't know what they're doing"...

KOSS

by Judy Reynolds

To start with, the team didn't really know until two days before we were due to leave if they were even going. This was due to a dispute over South Africa sending a team to Kossen. For the first time in hang-gliding, politics took over. Unfortunately, due to an agreement, signed by all the nations of the British Commonwealth, British teams would not be supported by our financial backers, the Sports Council, if we sent a team to compete against the South Africans. This meant that the British team would not only lose the financial support for Kossen, but for future competitions also. Quite a problem, but rather an unfair choice for our lads to make, especially as none of them were particularly bothered what colour or creed their opponents were, as long as there was good flying to be had by all. After all, when over twenty countries come together for such a competition, it is far more important that friendliness should prevail over politics. Nevertheless, after much aggro and last minute panic, it was discovered that the South Africans were only going to participate as guest flyers. This meant that their scores would not officially be taken into account, so our team would not be affected.

After a mad two days of rushing around to sort everyone out, Roy Hill (the team manager), and John Fack (his assistant), managed to get everyone together at Sevenoaks early on Monday, 16th June, to pick up our team van. After a lot of re-packing, and general squashing, we all got in. Me, being the smallest, I had the pleasure of sitting in

the back on all the cases, fighting off tip draggers (courtesy of the Fledge pilots, Carr and Cruise) and suitcases every time we went round a corner. Not that I minded — what girl would complain, knowing she was to spend the next 20 hours so closely confined with such a lovely bunch of men? Mind you, after about 6 hours the pleasure rather diminished.

Finally, without so much as a flat tyre, we reached Kossen in the early hours of Tuesday, early enough in fact to be able to witness the early morning mist hanging over the mountain, which we later discovered was a daily feature throughout the competition. That first day turned out to be one of the best flying days they had. By mid-morning the mist had lifted, and the sun made a rare appearance for about 6 hours, the longest it showed itself the whole time we were there! The lads, even though exhausted from the journey, couldn't resist those thermals, and by mid-day they were all a couple of thousand above take-off. As this first week was going to be the decider on who actually would take part in the comp (two of the team would be dropped for reserves), they were all eager to get in as much practice as possible. It was a shame really, that the reserves hadn't been picked before they got sent out there. It was the general opinion that in future this was a better idea. At least it would have prevented all the wind-ups amongst the team that first week, and Johnny Carr could have slept more peacefully prior to the cut. It was finally decided that Lester Cruse and Keith Reynolds would be reserves, leaving a team consisting of: **Graham Slater, Bob England, Bob Bailey, Bob Calvert, Graham Hobson** and, in Class II, **Johnny Carr**.

HASSLES

The week of practice contained quite a few bad scenes, the main one being poor Bob Calvert having his brand new Atlas Glider stolen, from



EN '80

Pictures by Alan James



right outside the hotel. Then Johnny Carr had all his instruments stolen, along with Mike de Glanville from France. Even Sepp Humberger, the organiser of the competition, had his glider slashed. There was bad feeling among the teams because of this and, unfortunately, the police could do nothing to help. Obviously a team of people who knew what they were after got it together and took only the best. After a lot of begging Bob managed to borrow another glider, but of course it wasn't the same for him as having his own. That first week was also spent dodging the rain. Kossen must be one of the wettest places in Austria — I don't think a day passed without it raining at some point.

At last the evening of the opening ceremony arrived, all the teams gathered in the village square, surrounded by Austrians in their national costumes, dragging a life-sized cannon behind them (which was regularly fired giving us all near heart failure), and supporting all the flags of all the nations. We had to march through the streets, which were lined with locals and spectators cheering and clapping as we passed. It was rather like the opening of the Olympics. We finally met up in the village centre, where the Mayor and some other officials gave us an hour of speeches, *in three different languages*, which as you can imagine went down a bomb, especially as it was pouring with rain! The Spaniards stole the show that night, dressed in traditional black Spanish capes and wide-brim hats - and all on roller skates! They certainly had the Austrians amazed, especially when they started letting off fire crackers amongst the crowd just as the Mayor was delivering his speech! Needless to say, the British team looked immaculate in their red and navy Protec flying suits.

TASKS

The competition, as a whole, consisted of the usual Mickey Mouse tasks, which hardly showed the real flying capability of any of the pilots, especially the British - who would have preferred more XC-type tasks. Each day started with a duration and spot. The duration was marked to a stated time, with the maximum allowed of 30 minutes, later in the week changed to an hour. Bob Calvert was the first man off in the whole comp, not a specially choice position to be in, especially on an unknown glider. His first opponent was Josef Guggenmos, the German World Champion, a real wind-up for him. Nevertheless, he managed to beat him by just two minutes, staying up for sixteen minutes and then landing just 3 metres off the spot - not a bad start. Then came the Pylon task. This consisted of 4 markers around the landing area, which the pilots had to 360 as many times as possible, up to 10 times. This was one task in which Slater nearly ended up in the trees, after coming in too low at the last minute trying to line up for the spot. He just managed to clear the tree tops, but fell well short of the target. Unfortunately Guggenmos beat him hands down. For Johnny Carr, in Class II with his Fledge, things were going a lot better. His main opponent was Hans Olchewsky from Germany (the 1978 European Champion), but Johnny had a nice bit of lift and maxed out in the duration task, beating Hans by 40 minutes.

We did have a bit of aggro from some other teams, which almost turned into a protest. The cause was Graham Hobson being late in taking off in one of his heats, making others have to fly in front of him. Instead of being first off he ended up last, unfortunately hitting loads of sink and blowing his chances. Because of his failure the protest was dropped, but it caused a bit of bad feeling from the other teams against the British.



Nevertheless Graham went on to win 3rd place in Class I, quite an achievement, and helped boost the team's points up towards winning the Team Trophy. Another task which helped do this was and out-and-return from the mountain to the lake at Walchee, about 7 kms. away from the landing area. So many points were scored for reaching and 360-ing over the lake, then an extra 1,500 points scored for those that made it back to the landing area. Bailey, Hobson and Slater were all in the same heat, and all maxed out, returning to the landing area. This really did boost the team's points and gave us the lead which led to the British coming 1st in the team competition.

ACCIDENTS

Unfortunately we had one accident, which resulted in poor John Fack going to hospital nursing a broken arm. It was a bit of bad luck, especially as he had only just got back into flying after 3 months recovering from the same arm being broken (in the same place), at Christmas. He came into land on his Lazor and ran into wash from another glider, just landed, about 10 ft. up, and hit the ground too hard. Apart from this, and one other flyer breaking his ankle, the whole comp went off without any serious injury. After 3 days in hospital John was back amongst us, but in quite a lot of pain, so he left a day early to fly back to London.

On the whole we all had a pretty good time, especially in the evenings, when all the teams got together in the local disco and restaurants. What with out-singing each other with national anthems, and ice-cream eating contests (courtesy of the Kiwis), we really had a lot of fun.

TROPHIES

The final European scores ended with Class I being won by France's Gerard Thevenot, 2nd Walti Schoenauer (Switzerland) and of course 3rd our own dear Graham Hobson. Pedro Lopez of Brazil, guest flying, would have been 2nd had his scores counted. In Class II we had Mike de Glanville of France 1st, Johnny Carr 2nd and Per Digranes of Norway was 3rd. Ross Macmillan of NZ would have been 2nd if it had been a world championship.

They all received magnificent trophies, some almost as big as me, which were presented by Kossen's Mayor in front of a huge crowd, crammed into a large marquee - which was more like a German beer festival tent than a place for the prize giving! It should think the whole of Kossen village came to watch the presentation. Half the crowd had to stand outside in the rain. Still, it was all very exciting and made a nice end to the holiday. I nearly forgot to mention Graham Slater, who won 8th place in Class I, and received a trophy. Not a bad comeback for someone who nearly fell over the hotel balcony one night (but we won't go into the details) . . . *don't worry, Graham, your secret is safe with us!*

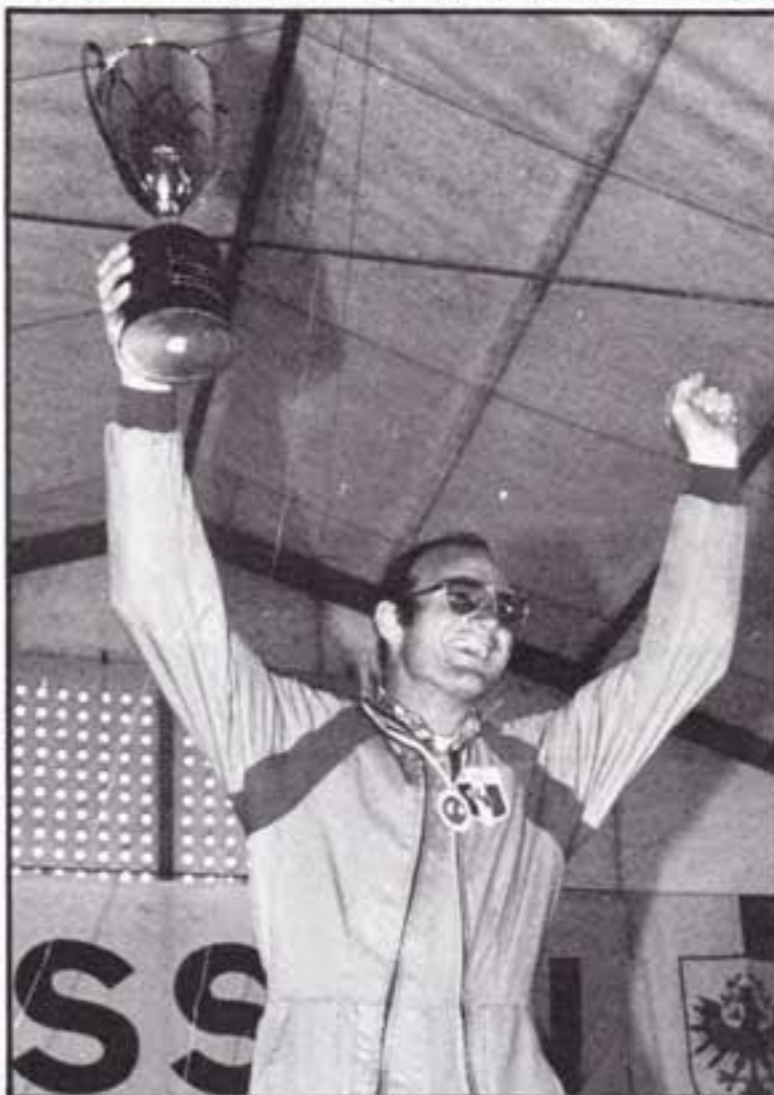
Finally I think all the team would like to thank Roy Hill for all his hard work and John Fack, even if he retired early than expected. Honestly, some people will do anything to get out of marshalling . . . !



20 Top British pilot in class I, 3rd in the European, Graham Hobson from Manchester.



European Team Champions. Roy Hill, British Manager, grasps Trophy, along with some of the team members.



Gerard Thevenot, French pilot supreme, builder of La Mouette Atlas, Class I Champion of Europe for the second time, 1978, and now 1980.

Mike de Glanville, naturalised Frenchman flying American Fledgling 2, European Class II Champion.

EUROPEAN CHAMPIONSHIPS KOSSEN '80 CLASS ONE

1. Thevenot (Gerard), Atlas, France, 10362.
2. Schoenauer (Walti), Firebird 'C', Switzerland, 9872.
3. Hobson (Graham), Great Britain, 9604.
4. Heinelt (Otfried), Wings, West Germany 9471.
5. Guggenmos (Josef), Wings, West Germany 9418.
6. Villas Boas (Sergio), Mega 2, Portugal, 9233.
7. Belin (Joel), Atlas, France, 9189.
8. Slater (Graham) Atlas, Great Britain, 9016.
9. Zach (Wolfgang), Steinbach, Austria, 8991.
10. Dagn (Hermann), Moyes Maxi, Austria, 8960.
11. Calvert (Robert), Atlas, Great Britain, 8689.
12. Manna (Davide), Spirit, Italy, 8669.
13. Bailey (Robert), Atlas, Great Britain, 8490.
14. Lorenzoni (Helmut), Cyclone, Austria, 8291.
15. De Ayala (Angel), Maxi, Spain, 8140.
16. Schultz (Jan), Mega 2, Netherlands, 8051.
17. Bernardi (Silvand), Vulcan, Italy, 8028.
18. England (Bob), Atlas, Great Britain, 7814.
19. Guebeli (Werner), Doest Cyclone), Switzerland, 7580.
20. Johannessen (Werner), Atlas, Norway, 7535.

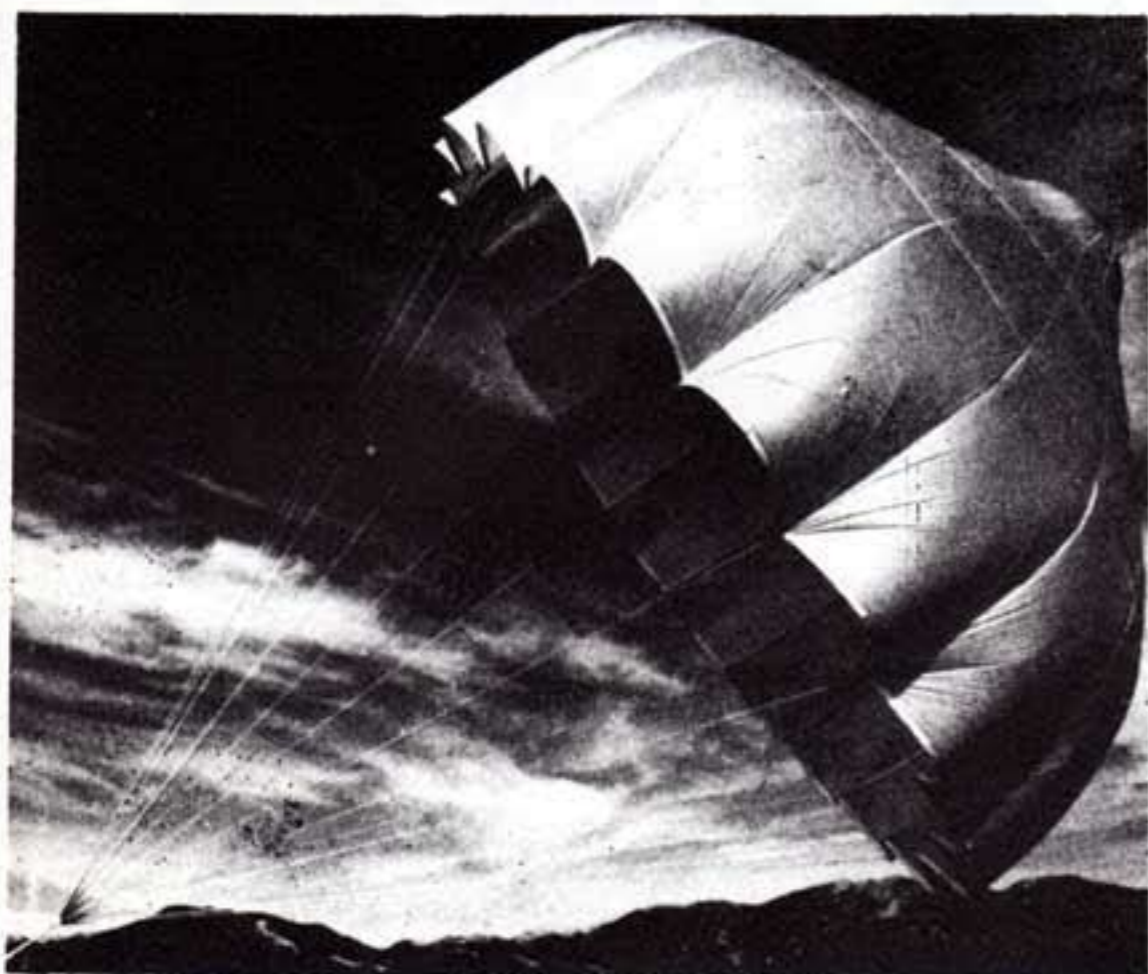
EUROPEAN CHAMPIONSHIPS CLASS TWO

1. De Glanville (Mike), Fledgling, France, 9956.
2. Carr (John), Fledgling, Great Britain, 9104.
3. Digranes (Per), Fledgling, Norway, 8693.
4. Hartl (Wolfgang), Fledgling, Austria, 8606.
5. Olchewsky (Hans), Fledgling, West Germany, 8398.
6. Lussi (Walter), AWS Flash, Switzerland, 8308.
7. Ausserhofer (Erwin), AWS Flash, Italy, 7593.
8. Bachmann (Josef), Fledge 1, France 6642.
9. Simerl (Miran), Fledge 1, Yugoslavia, 6504.
10. Johannson (Lennart), Fledge 2, Sweden, 5141.

EUROPEAN TEAM CHAMPIONSHIPS

1. Great Britain	52717
2. Austria	47595
3. France	44222
4. Switzerland	42042
5. Germany	40472
6. Norway	38641
7. Italy	33874
8. Yugoslavia	28763
9. Spain	28266
10. Sweden	27842
11. Ireland	23194
12. Liechtenstein	21308

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Photo Mark Junak

XC FROM A PIDDLING HILL

Peter Robinson

The forecast was good, 15mph NNW and, if the previous few days were an indication, sufficiently unstable from ground level to a few thousand feet. I was thinking of going to Westbury to allow a longer flight before running out of land. However the conditions did not look at all promising that morning with a complete cover of high cloud and a light wind. By now I was committed to taking a day off my precious annual holiday allowance, so I went out to my nearest local site, but without much hope.

I rigged the Storm and was airborne at 10.15 in a scratchy 8 – 10mph. I was cheered to see the high cloud breaking and receding southwards, and cumulus start to form, upwind at first, then progressively nearer. The convection caused the wind to increase, giving a comfortable 100 – 200' ATO. At 10.50 the first decent thermal came through. I made 500' ATO circling back, but decided I was likely to drop out and came back to the ridge again. It was too early anyway; there was too little development visible downwind.

Below me I spotted a fox running through the bushes and a cow licking its newborn calf. Good omens, I thought. Got to believe in something.

At 11.05 a moderate thermal came through. At 500' I committed myself. It was what seems to be our typical morning thermal at this altitude, bitty, with little cores appearing and disappearing. By 1000' ATO I had found a nice 5 up. By 1500' the whole thing seemed to have diffused. There was a line of cumulus to the east and I suspect that my thermal had been wrecked by the downdraught associated with that lift. After searching for some time in the still bubbly air without finding anything usable, I headed crosswind to the nearest village. This was in a little valley and under the cumulus line, so I thought (prayed) that I just might find something there. Otherwise it would be a tiresome 3-mile retrieve. Downwind of the village at 400' ATO, choosing a landing field, the miracle happened – bump, bump, then winding around in a 5+.

This, for me, is the most exciting sensation in our sport, to be rescued at the last moment by this invisible, gravity-defying force and have despair turned to hope. Who needs the theatre for drama?

The thermal was not one of those uncomplicated late afternoon jobs, but it was large in area and obviously going somewhere, toward that still-developing cumulus downwind. Over the next town I was at cloud-base, 4100' ASL, making a conscious effort to relax and enjoy the view.

I searched around under the cloud for a way in. I wanted to extend my very brief cloud flying experience and these looked safe (no cu-nins,

thanks). I found a core and went on up. It was a novel sensation, circling with no view of anything but the whiteness. Even the view of the wing-tips was slightly affected by the visibility. All was well for a minute or two, then I went through some mild turbulence and was suddenly completely disorientated. Pulling on speed to return to what I knew should be straight flight I still felt as if I was spinning wildly. Don't p-a-n-i-c! After what seemed an age of this dizzy brain-scrambling, I popped out of the side of the cloud and instantly all was well again.

I turned and went back in, and had no further trouble. The next twenty minutes were spent in this and neighbouring clouds, reaching 4750' ASL. Between the clouds I had views of the sun shining on Poole Harbour or, in the other direction, the Bovington tank ranges.

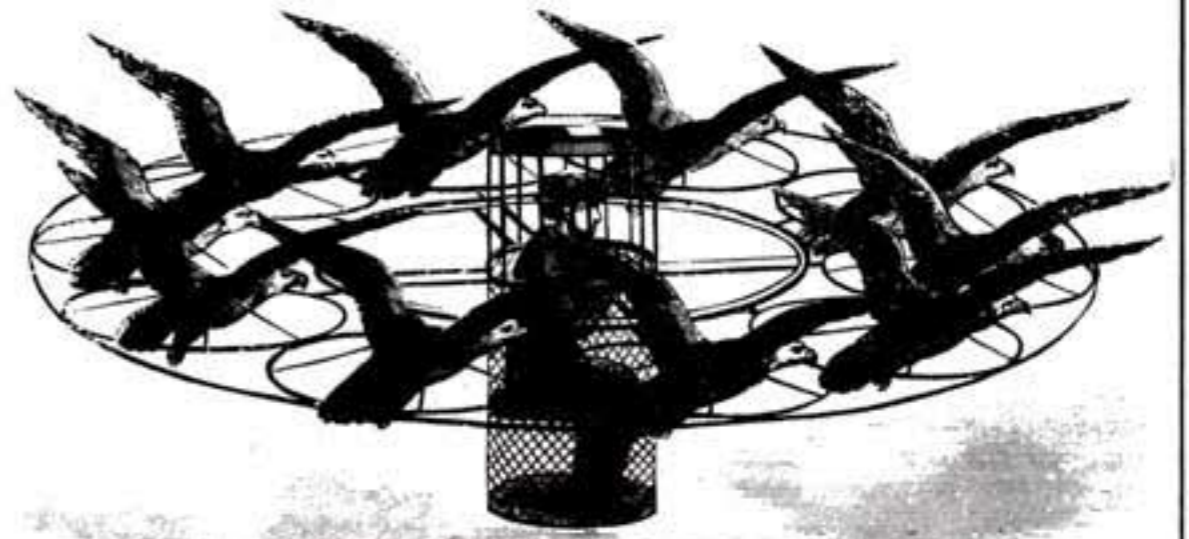
It seemed to be impossible to circle efficiently for any time in cloud, because of the lack of a horizon reference, and I certainly would not like to encounter even moderate turbulence without some type of turn indicator. Maybe it's mostly in the mind, and one learns to cope.

It is tempting, after a while spent at or above cloudbase, to think that the sky owes you a living, so to speak, that you can set off in any direction without losing height. I resisted this fallacy and stuck with my friendly neighbourhood clouds until I was west of Wareham. At this point a crosswind move was necessary if the flight was not to be cut short by the coast a few miles downwind. So, through the sink to find another thermal south of Wareham at 2300' ASL. This produced powerful lift for several turns but by 3300' ASL it had broken up and again my goal, Swanage, required a crosswind glide. With the sky overdeveloping and upwind being plantations and the heathland around Poole Harbour the prospects of another thermal were small. I debated if I should turn upwind and surprise Ted Frater by landing in the field by his house, but I had left it too late.

At 12.15 I landed on a playing field in the town. The first people I spoke to were talking Welsh. I wondered if I had been in cloud too long, and with 180° windshear really had made a record trip. No, they were on a coach tour.

I was happy with the twenty-plus miles as an opening bid for the next X-C Trophy. Also this meant that I had now done more than 100 thermal X-C miles, almost all locally, since the beginning of May. This was a goal I had set myself when, largely thanks to the efforts of Andy Wilson at Monks Down and Bob England at Westbury, I had suddenly realised that X-C's might be regularly practical from our piddling little 300' – 350' sites. This realisation, together with a co-ordinated kite and a reliable vario, has transformed my enjoyment of flying.

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... having flown in the Owens Valley, California, I would not hesitate in recommending the above pack to anyone flying there or in any other desolate place. Especially for the Hang Glider Pilots entering the Cross Country Classic, where you really have to go for it, and the chances of having to make a forced landing at 13,000 feet, maybe with injuries, are a real possibility.

The hot drinks and chocolate would be very welcome and sustaining. Everything in the pack worked, much to the amusement of our neighbours as I squatted in the drive drinking warm Bovril from my little tin

foil stove, reading the notes on first aid and survival. I was banned from the house because of the fire risk. I must point out the importance of carrying water, at least an extra pint in addition to the normal in-flight drinking bottle (remember Geoff Snape) and a space blanket (tin foil pack) to retain body heat in case of exposure or to collect water in the form of a solar still.

This well packed and planned kit at £5.50, weighing only 11lb., together with the extra water and space blanket making a total of 3lbs. in all, is a must for Hang Glider Pilots in extreme conditions. Who knows? This may just save your life...

Richard Brown

DUAL FLYING – TAKE CARE

Kay Simpsons recent article on dual flying has opened the possibilities, with the improved performance of modern gliders, of taking to the skies with a partner. Howard Edwards, at the DHGS, has clocked up 100 flight hours doubled up. But alarm bells are ringing in the airworthiness camp, so take note; two adults on a standard machine seriously erode the safety margins guaranteed by the

BHGA static test. Two heavy-weights could put the glider to limit load conditions if turbulence is encountered during a tight turn. Your C. of A. is obviously invalidated, and the insurance cover open to question. "Beefing-up" can strengthen the glider if it is done properly, but surprisingly, can also have little effect, putting stress on weaker parts. TAKE OUR ADVICE – ONLY FLY IN GOOD CONDITIONS.

Clive Smith

XC LEAGUE TABLE at 15/7/80

Name	1st	2nd	3rd	Average	Club
1 Bob Bailey	59.3	35.8	26.7	40.6	Dales
2 Pete Hargreaves	18.0	10.6	68.4	32.3	N. Yorks
3 Sandy Fairgrieve	24.9	20.4	25.6	23.6	Northampton
4 Bob Harrison	8.0	16.0	40.3	21.4	Dales
5 Dave Harrison	8.0	50.8	—	19.6	Dales
6 John North	15.9	10.5	29.5	18.6	Pennine
7 Ian Ferguson	17.0	9.3	26.4	17.6	Lancaster
8 Rod Lees	14.6	18.5	—	11.0	Mid-Wales
9 John Stirk	10.3	14.2	—	8.1	Dales
10 Pete Anstey	7.6	11.7	—	6.4	Dales
11 Jim Brown	11.0	7.6	—	6.2	Dales
12 John Hudson	15.9	—	—	5.3	Pennine
13 Gordon Holmes	14.0	—	—	4.6	G. Cayley
14 Pete Kavanagh	12.0	—	—	4.0	Pennine
15 Dick Brown	9.8	—	—	3.3	Pennine

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A20	£20,000	£100.00	£80.00

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D50	£50 per week	£30.00
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The Bishop Animals

from John Hudson



At the start of the 1980 league, each pilot was asked to state the competition he would like to go to, if in line for selection.

A prominent and skilful flier said that far from wanting to go to the Owens Valley XC Classic, in his opinion hang gliding competition in that area was too dangerous. He urged that we should not go at all.

For those not familiar with the Owens Valley, it is situated two hundred and fifty miles north east of Los Angeles in California.

A major earth movement thousands of years ago caused a huge rift in the mountains which has left a flat valley eight to ten miles wide and over one hundred miles long. The left side of this valley is flanked by the White Mountain range and the right by the Sierras. Both ranges have mountains rising about ten thousand feet above the valley floor to fourteen thousand feet A.S.L.

The valley itself is desert and temperatures often reach 108°, whilst the high 90's is average. Cloudbase is

open, two competitions held prior to the XC classic. We flew in both these competitions for experience and on the very first flight in the Owens John North and Keith Cockroft both flew over sixty miles, beating the majority of competitors.

This boded good for us even though we realised that tough competition was still to come. Of just how tough that competition was going to be we new little.

The launch site for all the events is from a place called Gunter Canyon, 4,200 feet above the valley floor at 8,200 feet A.S.L. It is known as a sink hole of the Whites and 2,000 feet below is a relatively flat desolate area called 'The Pits.' This hot, dusty and unfriendly place generally snares at least six to eight pilots each day, and with the exception of Keith Cockroft we all visited it a couple of times. Fifty per cent of your flight is just getting a thermal and clearing the enormous canyon which runs down the side of launch. You need at least two thousand feet above take off to attempt the crossings since it is three

All the tasks are XC. For instance—speed to Janies—thirty six miles (Janies is a legal brothel and just inside the Nevada border). Open distance—best ninety five miles. Out and open distance return—another ninety plus miler. Dogleg distance—best over one hundred and twenty miles. Can you imagine what this means? Flying against sixty other pilots up to altitudes of seventeen thousand feet carrying Vario, Altimeter, Barograph, Oxygen and full insulated clothing, with survival kit, whistle, matches, mirror and radio compulsory, *and* foot launching in thin air at 8,200 feet? It is the epitome of XC hang glider flight and is for me at least the realisation of many of my dreams.

The desert burns your skin and the sky time burns holes in your brain but after two weeks practice flying we felt not only in tune with the laid back casualness of the meet, but also in tune with the sheer unrelenting work one has to undertake before flying.

Don Patridge, the meet organiser, had three ten



normally eighteen thousand feet ASL so you can imagine how strong and large the thermals can become.

Couple this with a terrain which is so huge and alien to British pilots and one can appreciate the dissenting pilot's view that the competition requires nothing more than out and out animalistic courage and the willingness to risk life and limb to gain a place.

As a result of this view, the team selected to go to Bishop were christened 'animals.' This could just not be further from the truth. The tasks took pure skilful qualified flying, with sophisticated judgement, unique ability and total self confidence.

Some time after official team selection, Geoff Ball, one of the team members had to withdraw. I was 'knocked out' to find myself nominated to go in his place, and hurriedly cancelled a flight and holiday I had previously booked in the Owens for the end of July.

John North, Joe Binns and Keith Cockroft were the other members of the four man team and Bob Martin paid his own way but joined us.



We arrived in Bishop on the 18th June just in time to act as free fliers in the XC qualifier and the XC

thousand feet deep and runs four miles up the mountain. Thermals drift up each wall causing a massive sink area half way across, and being forced down into this or any of the twenty or so major canyons could result in a serious accident.

As a result the launch time is all important, and leaves no room for mistakes. Mistakes spell pits and a zero score. I was relieved on my first visit to find Jerry Katz, the unofficial world record holder (104 miles) standing in the sand, just as bewildered as I was.

During practice we all had some amazing flying. The Owens is an incredible place and has to be experienced to be believed. Seventy miles from launch is White Mountain, about fourteen thousand two hundred and fifty feet high and two hundred feet smaller than the highest mountain in the USA. This enormous peak is flanked by three massive canyons which all lead directly from the valley floor, and up which flow the most powerful and gigantic thermals one can imagine. The main canyon is over a mile across and when you fly into it you are dwarfed by the scale of things. Nearly everyone flew to sixteen or seventeen thousand feet around this peak, and up there, seeing for over fifty miles in every direction you realise just how insignificant our wings are, but just how wonderful is this magical sport of ours. Fly there and call me God!

ton trucks fitted with racks for twenty five gliders each. (Over there, a sardonic sense of humour called the glider 'Diver,' a flyer 'a Diver Driver' and the favourite saying is 'its a nice day to die in the Whites!'—heavy!)



Each morning we would meet at 10.00 am and mount the truck for the ten mile, two hour, hot dusty climb to launch, constantly jolted by rough roads choked by tons of airborne sand and packed like sardines into the functional but uncomfortable trucks.

After living at sea level, eight thousand feet is high and immediately the truck stops rolling you have to hump your glider and all your sundry equipment through cactus and sage bush to where you think there are fewer obstacles to launch. Once there with your wings open you dare not leave. Dust Devils have to be seen to be believed. A Dust Devil is a violent spinning vortex of hot air travelling at around thirty miles per hour which will suck up loose objects, tossing them harmlessly away, or destroy your glider completely, depending on the size and perhaps of the temperament of the particular Devil which decides to tangle with you. Dust Devils are phenomenon of

desert areas and have been seen to rise to five thousand feet with a diameter which would swallow a house. We quickly learned to leave them alone!



After twelve days of free flying and practice we were faced with the competition for which we were sent. The Annual Owens Valley Cross Country Classic. A competition designed to test the flying skills of XC pilots the world over. Almost all the world was there too, with over eleven countries participating and within two days we all realised just how hard our task was going to be. The very first day saw Bob and I in the pits, Keith a mile from launch out in the desert and John North landing at Dons, three miles away. A lot of the competitors flew fifty or so miles on an out and return whilst only Joe held up the British end with a forty mile flight. The best flight that day was over ninety five miles!

The second day started with high winds and a red flag to prevent suicidal launches. As soon as a green showed four hours later, thirty pilots left the ground to catch one of the few 'up cycles' which were coming through. The task was a race to Janies (thirty four miles) and both John North and I spent a couple of hours working very light lift eventually being forced

relatively easy but after that ten thousand feet may separate the flyer from the ground and he has to ignore thermal producing mountains in order to keep the Highways in reachable distance. This is thermal flying at its best and at its hardest.

The next day was a Dog leg distance and Keith and Joe flew well. Keith made a very hazardous but remarkable gain of eleven thousand two hundred feet to twenty thousand seven hundred and fifty feet above sea level without oxygen and flew about seventy five miles. John North flew the flag the furthest with a flight of four and three quarter hours duration making the top ten with about ninety miles. Joe, Bob and I blew our launch and landed in the hell hole called 'The pits'. Some of the British flights may seem creditable but it is more than sobering to consider that on that particular day the average distance of the top ten was eighty miles, the longest flight was one hundred and twenty miles and to come fourteenth place you had to go at least seventy eight miles. Quote 'Joe Binns', "There are at least twenty five pilots outside the known names of Greblo, Pfeiffer and Grigsby, each one of which is better than any league pilot in Britain." The standard of flying was incredible. Much of hard American XC flying seems to be similar to the Owens in techniques and this was paying handsomely for most US Fliers.

places where only skilful working of light thermal lift could save you from certain outlanding with its hazardous touchdown, night on the mountain and a subsequent one hundred point penalty; If you survived!

The last flyable day of the competition involved a flight to photograph White Mountain seventeen miles away, then back to launch, then up range again twenty miles to Zacks Ranch, down on the Valley floor. This task had to be completed as fast as possible and Keith, launching early, made almost the whole task, mistakingly landing in the wrong field.

I made the first turn point at White Mountain and then spent two hours working my heart out in the foot hills trying to get back against the headwinds. Joe, Bob and John launched too late in the day and were unable to make any headway against the strong valley winds landing a few miles from launch.

So ended the 1980 XC Classic, surely the most demanding competition in the world.

- 1 Gunter Launch
- 2 Sunlight on a Sensor
- 3 One of the trucks in the rough terrain
- 4 Left to right—Bob Martin, Keith Cockroft, John Hudson, John North, Joe Binns.



down a few miles from launch. Joe launched earlier and completed the task whilst Keith hung on with great determination and almost maniacal intensity to join Joe at Janies. Quote from Keith Cockroft, "I flew the hardest flight of my entire life, working impossible places in impossible conditions. I flew over the finish line and was shattered to see thirty or more gliders on the ground. This is going to be very very hard!" Just how hard was soon to be realised.

The next two days were blown out as forty miles per hour winds swept the launch, but being competitive we spent the days fishing in Bishop Creek with tree branch rods, fish hooks and worms. Huck Finn had nothing on us as our best days total was around thirty trout. Ice cold beer and a first rest for fourteen days soon made us lose count of 'who caught what'!

The fifth day of the competition was flyable and declared open distance. The British launched too late in the day, but Joe got sixty eight miles Keith fifty, John forty five and I trailed behind at thirty. Bob Martin made twenty or so and although in England at these distances are respectable, in the Owens they are nothing. Everyone in the top ten made over seventy five miles and the best was around ninety miles. One should be aware that up to thirty five miles from launch you have to follow a road through what is basically flat desert. The first thirty five miles is

The British team were going through something of a cultural shock. Fresh with the experience of thirty, forty and fifty mile flights in England we were faced with hard, experienced, dynamic and skilful pilots from all over the world meeting together in one of the most awe inspiring flying grounds ever flown. We felt very short on mountain thermal experience.

The fifth flyable day saw an out and open distance return. The 'out' being thirty miles away and John North flew the best with a five and three quarter hour, eighty five mile flight, at an average height of thirteen thousand feet. Keith ended two miles behind him whilst Joe made about sixty miles, pulling out away from the mountains in the face of a thirty m.p.h. wind.

I flew my guts out and made forty miles. Never in my life have I tried so hard, for so long, with so poor official results.



Most of our flights took about three and a half hours with a number of four hours and a few at two hours. To work this area takes fitness, determination and experience. We all had to learn when to leave thermals and just how long you could work the top end of the canyon. I saw pilots scratching at thirteen thousand feet, their shadows merging with the rock in

Our places do not reflect the skill and effort put into them. We are still awaiting final scores, but Keith made the best, around twenty first. Joe came next at around thirtieth and John North checked in around the top thirties.

Personally I find it hard to take that after three weeks of intensive hard flying, pure determination and to me, out and out 'go for it' flying I came somewhere after fiftieth place. This event, this year, has been placed as one of the highest standard meets ever held. John's ninety mile flight saw him in bed that night at 2.15 am, short of food, exhausted from flying, but with no release from the following intensive day.

The Owens Valley cross country competition has to be the goal to which all XC pilots should aspire. It is the ultimate in self realisation.

How can British pilots rationalise XC and open flying without experiencing the conditions experienced in Bishop? A tiny glider in eight hundred cubic miles of air space, flying in total freedom in pure thermal lift. We all had 5 and 7 thousand foot gains in

cont'd P32

So you think you know it all huh!

by Edmond Hui

How familiar are you with the basic theories and ideas in hang gliding? No doubt if you have just finished a course in a school, or have been flying a little while, you're pretty hot. If this was simply an article that gave you the same old grind, you'd skip over it, accepting everything I tell you. But do you really UNDERSTAND what you are told to do in the air? Or why accidents or near misses you have seen happened? Do you understand what the experts talk about in the pub afterwards? Here's a quiz with a difference to give you an idea. It works like this — there is a total of 10 questions, each with multiple choice answers. Each answer refers you to one of the numbered sections, which tells you whether or not you were right. If you were wrong, it refers you back to the question; if you were right it gives you the next question. The sections are randomized, so that the only way you can proceed through the article is to get the right answer to each question — it forces you to think. The questions are drawn mainly on my experience of problems that have confused me, or that I've heard experienced flyers give the wrong answers to, as well as causes of incidents I've seen. I think some of you old hands will be surprised at the wrong turns you take!

1. A smooth wind is blowing at an angle to a straight, smooth ridge. A glider is flying at a constant airspeed, and keeps a constant distance away from the ridge. Does it gain height more quickly on the upwind or downwind leg?

Answer:

- Upwind leg (12)
- Downwind leg (26)
- No difference (5)

2. From section (5). Your answer: Washout is a twist in the wing which makes certain the wingtips stall together, before the centre. Wrong. There is no way to insure the tips stall together — any turning movement would make one stall first. More importantly if the tips stall first the glider will be given a nose up moment and this would immediately stall the rest of the sail, resulting in total loss of control. Proceed to the correct answer. Section (7).

3. From section (7). Your answer: Swept back wings provide stability. This is correct — twice over — firstly it provides yaw stability by moving the centre of drag behind the centre of gravity. This means that if the glider is banked and begins to sideslip, there will be a tendency for the nose to drop, which can be counteracted by pushing the bar out. Secondly it provides longitudinal stability, because of the presence of washout in a hang glider's wing — this results in more lift being produced at the rear of the wing (i.e. the tips, because of sweep back) when the angle of attack of the glider is increased. This increased lift at the rear produces an increased force backwards exerted by the bar when you push it. Conversely when the bar is pulled, lift decreases at the tips, resulting in a forward force on the bar. Thus the bar shows a tendency to remain on a position of equilibrium.

Question: You are bottom landing, pointing in the direction which would have been into wind at the top of the ridge. You notice a high groundspeed as you make your approach. Obviously the wind direction is different at this level. Close observation shows the detail on the ground to be approaching from the direction shown in Fig.1.

What do you do?

Answer:

- Flare hard (6)
- Turn left (8)
- Turn right (18)

4. From section (7). Your answer: Swept back wings reduce drag. Wrong. Unswept wings produce a given amount of lift for less drag than swept wings. Hang gliders have swept wings for another reason. Go back to (7).

5. From section (1). Your answer: In the conditions given there is no difference between upwind and downwind legs. This is correct, although in practice gliders often gain height more quickly going upwind for the reasons given in (12).

Question: What is washout?

Answer:

It's a twist in the wing which gives the tips a lesser angle of attack than the centre of the sail (7). It's a twist in the wing which makes certain the wingtips stall together, before the centre (2).

6. From section (3). Your answer: Flare hard. NO. Always land into wind. If you stall trying to land in this crosswind situation, glider damage is certain, personal damage is highly likely. Go back to (3).

7. From section (5). Your answer: Washout gives tips a lesser angle of attack than the centre of the sail. This is correct. One of the functions of washout in a hang glider is to ensure the centre section stalls before the tips when the angle of attack of the glider is increased. This is achieved by making sure that the tips reach their stall angle later than the centre, by giving them a lesser angle of attack.

Question: Why are the wings on a hang glider swept back?

Answer:

This is a necessary result of using the 4-pole basic framework design of Francis Rogallo, and is the lightest, strongest way of holding a sail in a wing shape. (15)

This design provides stability and looks good (3)

Swept back wings reduce drag (4)

8. From section (3). Your answer: Turn left. Sorry, you have just turned downwind and are headed for a downwind landing and a certain amount of trauma. You would have been correct had the arrow indicated wind direction. Go back to (3).

9. From section (23). Your answer: Fly through the sink. This is usually the best strategy, because it tends to get you out of the sink quickly. Conversely, if you hit a patch of lift, turning will help to keep you in it.

Question: Why is it said that Lift/Drag = Distance travelled?

Height lost

Answer:

This is an approximation based on a theoretical perfect glider. (13)

There is a direct mathematical equivalence that applies for any glider (17)

10. From (17). Your answer: Turn downwind. That's what I would do. This quickly gets you away

from the edge of the ridge where the worst of the rotor is. Remember to turn into wind to land. This strategy is safer the greater your initial height. If you start off low, it's your decision — good luck! Moral of the story is watch out for changes in the conditions — watch smoke, windlines on the sea, etc.

Question: There is an oblique wind blowing onto the ridge. After take-off, do you turn to do an upwind leg or a downwind leg first?

Answer:

Turn upwind when prone, downwind if seated (24)

Turn downwind every time (22)

Turn upwind every time (20)

11. From section (20). Your answer: He's showing off. He may be, but there's probably a better reason. Go back to (20).

12. From section (1). Your answer: It gains height more quickly on the upwind leg. No. This is a common misconception. Gliders often do gain more height on the upwind leg, but this is entirely due to the fact that the lower groundspeed allows the glider to be flown slower and closer to the hill with a greater margin of safety upwind, as well as the fact that the upwind leg takes longer to complete, and there is more time to gain height. Go back to (1).

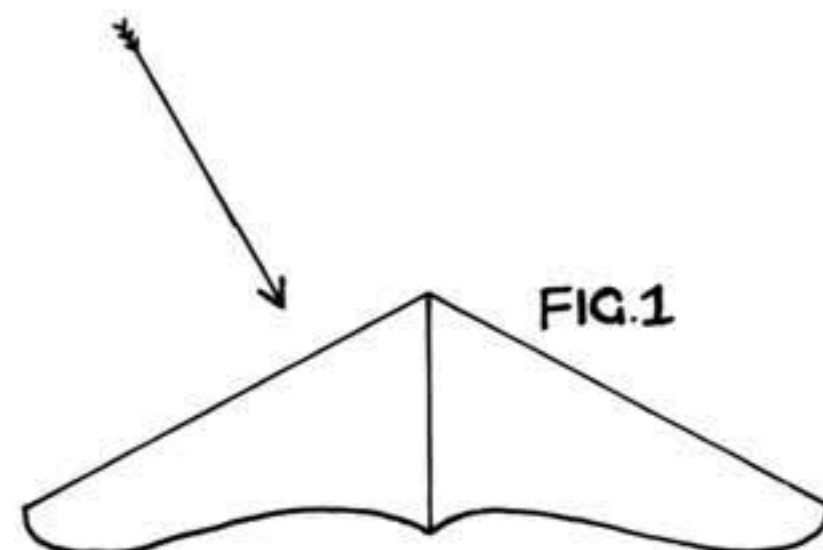
13. From section (9). Your answer: L/D = glide ratio only for theoretical perfect glider. Sorry, works for your glider as well. See Definition in (17).

14. From section (20). Your answer: Dragging a foot helps the glider turn into wind. No. It's got nothing to do with turning. Go back to (20).

15. From section (7). Your answer: Structural reasons. These may be true, but other considerations have a higher priority. Go back to (7).

16. From section (23). Your answer: Turn in the sink. This is only correct if you've just flown out of what you consider to be a good thermal. In the typical situation, though, turning in sink will lose a lot of height because as you turn into the wind you remain essentially in the same spot, in the sinking air. Go back to (23).

17. From section (9). Your answer: There is a direct mathematical equivalence of L/D and glide ratio that applies for any glider. You're right, but you'd be surprised how many pilots wouldn't be able to scratch this elegant proof out in the sand.



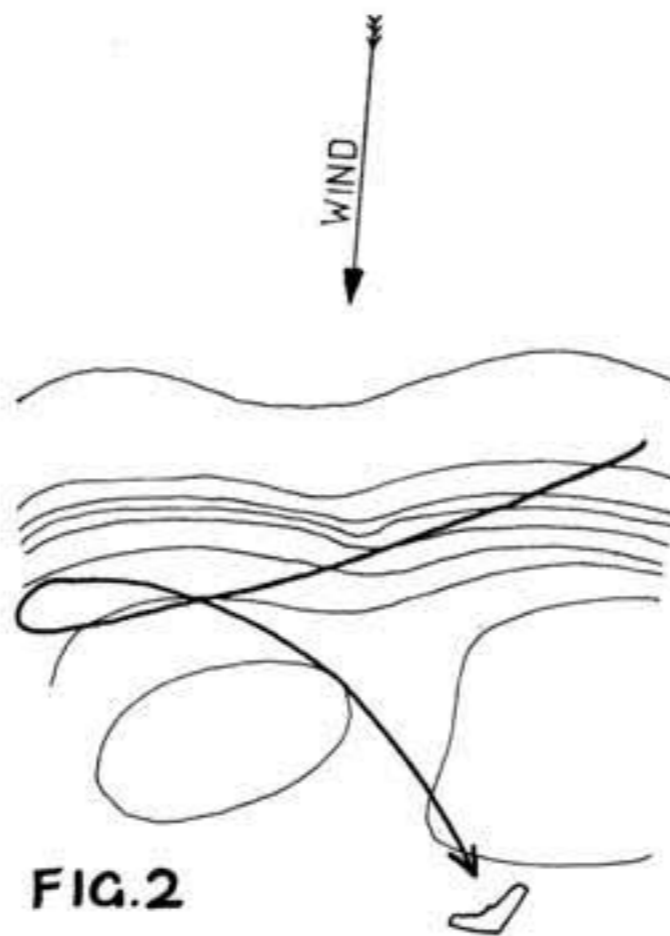
We have a glider travelling in a straight line at a constant velocity. It is now at point P, travelling in direction V. Newton's laws require that there is no resultant force on the glider — that all the forces acting on it balance out. We know that there are only three forces acting on the glider; lift produced by the wing, the total drag, and the weight of the glider/pilot combination. We know that drag acts exactly opposite to the direction of movement. This is shown by D. We know that the weight W acts vertically downwards. The lift L acts at right angles to the drag, (all components of the lifting force which don't act in this direction have already been taken account of in the drag). We know that lift and drag together must exactly equal the weight, so we can draw in this resultant force R. The size of the lifting force is therefore determined — this is shown in the diagram by displacing the force D to D', which is the same length and acts in the same direction. L must be of such a size that $D + L = R$. So much for the difficult bit. You will notice that $\frac{D}{L}$ is the cotangent of the angle θ , and $\frac{W}{L}$, the height dropped for the distance travelled, is the cotangent of angle α . All that means is that if we can prove that $\theta = \alpha$, we have proved that $\frac{D}{L} = \frac{W}{L}$ — which is what we set out to do. You will also notice that $\theta + \alpha$ is the angle between L and D. This we know is 90° . So we know that $\theta = 90^\circ - \alpha$. Since we know that the angles inside a triangle total 180° , we can look at the triangle formed by H, S and V and notice that its internal angles are 90° , α and θ . Thus $180^\circ = 90^\circ + \alpha + \theta$ therefore $90^\circ = \alpha + \theta$. We already know that $\theta = 90^\circ - \alpha$, so it is clear (I hope) that $\theta = \alpha$, and so the L/D ratio is equal to the glide ratio. If you can't follow the above argument, I'm sure that careful study of Fig.2 will lead you to the same conclusion intuitively.

Question: You are soaring seated on a windy day, high over the ridge. The wind suddenly increases and you see no escape from being blown back. You suspect the ridge produces a rotor above and behind it. What do you do?

Answer:
Keep the bar pulled in and keep heading directly into the wind (21)
Turn downwind (10).

18. From section (3). Your answer: Turn right. Correct. This question may have illustrated how difficult it can be to relate diagrammatic information to real life. Even if you answered incorrectly initially, the chances are that if you really were in the situation you would have reacted correctly.

Question: You are using the crosswind tracking approach to a top landing. However, you hold your



last turn for too long and end up in the position shown. (Fig.3). At the same time you hit some sink and the ground approaches — fast. What do you do?

Answer:
Turn left, back into wind, making certain you don't dig your left wingtip into the ground (19)
Turn violently to get back into wind (23).

19. From section (18). Your answer: Turn left. There are two problems with this answer. 1. You have been turning right and are still in a right turn. Have you considered completing the right-hand 360? Certainly, if you have already reached the straight downwind direction, this would be the safer course, because the billow shift, and the bank angle, are already present for a continued right turn. To initiate a left turn would involve a considerable delay. It is for you to decide which direction is safest if you have not reached the straight downwind direction, but you must make your choice and act immediately. 2. Don't worry about digging a wingtip in — in this situation it will even help you turn into wind. On the one hand it is critical not to stall while doing all this, but bear in mind also that an enthusiastic turn will lose height — so bar out to minimise this. But DO give the turn all you've got — a gentle hesitant crosswind landing in anything but the lightest breezes has anything but gentle hesitant results.

Go to the correct answer. Section (23).

20. From section (10) Your answer: Upwind every

time. Yes. This gives you more time to catch your stirrup, or to sit back in your seat, encourages you to gain airspeed, as well as involving a turn through a smaller angle to start tracking up the ridge.

Question: The local ace pilot comes in for a top landing. He drags his foot some 20ft. over the ground before flaring out for a stand-up landing. He is:

Answer:
Showing off (11)
Facilitating his turn into wind (14)
Other reason (25)

21. From section (17). Your answer: Bar in and point into wind. This may be what your instinct tells you, but it will most likely dump you into the worst part of the rotor, after you've spent a considerable time tiring yourself out pulling the bar in. I would suggest section (10).

22. From section (10). Your answer: Downwind every time. Wrong every time! But still you see people doing it. Go back to section (10).

23. From section (18). Your answer: Turn violently. Correct. Nothing is more important than to be heading accurately into the wind when top landing, even if this means digging a wingtip in to do it. Comments given in section (10) help you decide which way to turn.

Question: While soaring in patchy lift you encounter an area of sink. What do you do?

Answer:
Turn round to find the lift you have just left (16)
Fly straight through it (9).

24. From section (10). Your answer: Upwind if prone, downwind if seated. Although it's true that the upwind leg will give you more time to find your stirrup if you're prone, you tell me why you should turn downwind if you're seated. Go back to section (10).

25. From section (20). Your answer: Other reason. Correct. He's creating more drag, allowing him to land without overshooting. It's a very useful technique if you have to land in a field which may be sloping gently away from you, or if you have excess speed as you approach the ground. It's the same principle as arresting hooks on an aircraft carrier. If you try it, though, remember to drag one foot only, and have the other ready to stop you falling forwards if you should trip. Flare out as you feel the weight on your dragging foot increase.

That's all, folks. Happy landings.

26. From section (1). Your answer: More lift on downwind leg. No. You're guessing. Go back to section (1).



"Honestly, Dad. I don't know his name, but he was on a red hang-glider."

Flight Reports



French Leave

Recently, I took a trip with my girlfriend, *all right, I admit it, wife (of 3 days standing, and several sittings)*, to the South of France. Everyone said our trip was a honeymoon, but, with the car packed with alpine and rock climbing, skiing, camping and of course hang gliding gear, it could hardly be called that! We passed quickly through Grenoble, where it was raining and arrived next day at the Verdon Gorge a very good climbing area near Lachens, where it, too, was raining, and blowing a gale. My earlier disappointment turned to manic depression when to Swiss climbers told us confidently that the Mistral had arrived and would blow for a week. 'Ja, but very good for ze climbing ja, no raining'. Whilst my faculties were impaired by excessive consumption of alcohol, I agreed, foolishly, to climb with them. Outside, the wind blew.

Next day was spent reliving old terrors on a smooth wall which overhung gently for 1,000 feet — my first climb for 8 months. Near the top, I looked south, the wind had dropped a little, and beautiful little cumulus clouds were all around. No more climbing for me! Off we went to camp on the top of Lachens, that evening.

Next morning was a treat, a 15 mph south wind, and the sun shining off a carpet of cloud over the towns below. I carefully rigged my Midas, did 16 pre-flight checks, and waited, in beautiful flying conditions, for someone else to come to let me know the problems of the place. No-one came, and after an hour of convincing myself my fears were purely psychological, I took off. It quickly became apparent to me what part *fear* has played in the survival of man, as I was tossed around like a dinghy in a storm. After half an hour or so of this, I hadn't made much height, having only flown in one thermal for 30 seconds before, but at least I'd got used to the 'ting-ting' sound, as the vario alternately hit the 1,000+ and 1,000- stops. One ill-timed bottom landing later, and I started to walk up the long winding road to the top, hoping to hitch a lift. 'Come on, you bloodee Frenchmen, have see pique-nique on see top of Lachen' I thought to myself, attempting to telesuggest ideas to the car drivers below. All to no avail, so I had to walk for 1½ hours to the top.

Later, the wind dropped and beautiful flat calm evening resulted. I did the most gloriously smooth top to bottom, cruising around 1,000 feet or so over the little villages, with a ripple in the air, and the sun setting over the mountains in the west . . .

Next day was Sunday, so it was a problem to hitch to the top with a kite, leaving my car at the bottom. Kites were way up when I got there and I duly joined the queue to take-off behind a slickly dressed Frenchman, with a very fancy new kite, streamlined flightdeck with autopilot etc. I felt almost ashamed with my secondhand vario taped onto a slightly bent upright of a battered old Midas. I took off shortly after him, and sure enough, on ridge lift, he was rising a little, and I wasn't. Suddenly, the vario buzzed — bloody unreliable secondhand junk, I thought in my inexperience. Previous knowledge told me that mountains do not, by their very nature, disappear underground, but Lachens certainly seemed to be. I 360'd for what seemed like ages, until, to my utter amazement, I was a couple of hundred feet

below cloudbase. The massive radar dishes which pollute the top of the mountain were like saucers, and the kites taking off were almost insignificant patches of colour in the receding mass of the mountain. I'd been 400 feet above take-off a couple of times at Tredegar, but this was something else, cars in the valley almost invisible, tiny houses 3,000 feet below, and the French answer to Biggles, in his super spaceship was still scratching around about 50 feet above take-off.

I had a couple more flying days after this, then the weather broke and my wife's desire to go skiing was satiated by the Vallie Blanche. On

reflection, Lachens is a frightening place for the inexperienced, and I had several scary moments, such as being dumped by a ferocious downdraft, short of the landing field, about 50 feet from some H.T. lines . . . The thermals at mid-day are so powerful, you don't feel happy unless there's several hundred feet beneath you. After half an hour flying a Midas, I was convinced it was designed by Bullworker, although I hear that even a keel pocket type glider requires plenty of muscle to get into thermals. It is also extremely exciting flying.

Reprinted from Avon HGC magazine, July 1980.

Flying a Weather Front

by Kevin Winter

WESTBURY TO HYDE COMMON — 29 MILES

Saturday, June 28th, 1980

At 2.15 p.m., standing above the White Horse of Westbury, ready for take-off, the wind was blowing 20/22 kts W.N.W. and felt slightly rough. I went off into good ridge lift, gaining 100/200 ft., and soon felt relaxed and began to enjoy some thermal-free soaring for my first flight of the day.

The cumulus above looked promising and at 2.30 p.m. approximately the vario showed 200 ft/min. lift, allowing me to pull well out in front of ridge. At 500 ft. I noticed the wind had changed to N.N.E., and my steady circling was taking me south towards Warminster.

Over Warminster, still below cumulus, cloud started forming below me, upwind. The take-off area was soon hidden, as I flew some 500ft. above this new cloud, still in clear air. Very soon all I could see to the North of me was one big cloud bank, stretching East/West as far as I could see. Above me this cloud leaned over like an umbrella, before giving way to blue sky and some towering cumulus to the South.

Whenever I closed in on the cloud bank the vario would register 700 ft/min. climb and rising, at which time I'd pull in and cover ground flying East along the bank. My course now, with the cloud moving South, was South Easterly.

Gaining confidence, I experimented with lift nearer the cloud, but about 5 miles South of Salisbury I turned away too late and got caught in cloud that formed below me. More cloud was above, and even with "arms locked", bar in, the glider did not outpace the engulfing mist. The last I noticed the vario was reading 300ft./min. climb, even with full speed on.

Thirty seconds later the cloud broke, and the Bournemouth coast and Southampton Water was clearly visible. Estimating to be 3,000ft. AGL I flew away from the bank, so that aircraft using two airports to the South would see me.

Flying for 2 minutes in 700-1,000ft./min. sink, took me approximately ½ mile South of the cloud bank, where the wind was more westerly, stronger and turbulent. Turning back, my old lift source could only be reached by gliding under its hostile looking lowest base. Flying towards the coast seemed more sensible. After making this decision my landing was only minutes away, timed at 3.40 p.m.

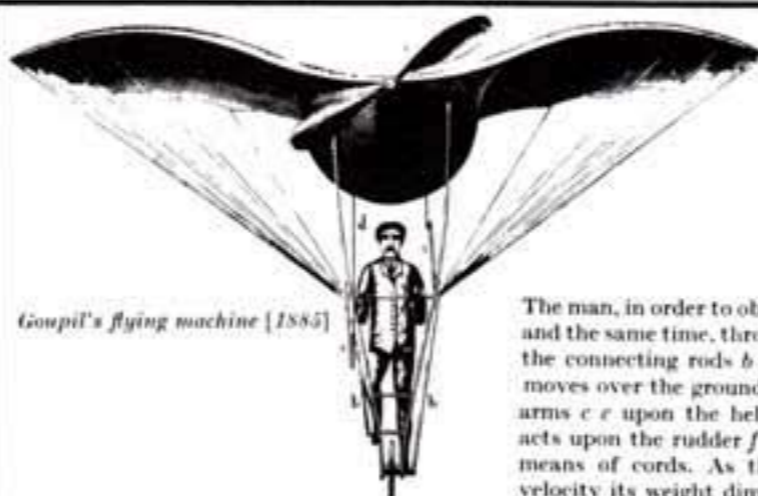
The surface wind at the time of touch-down was gusting 30 kts. at times. Fifteen minutes later, with the sky completely covered by light grey stratus, the wind abated to 10/15 kts.

With everything indicating that I'd "ridge soared" a front, I phoned RAF Upavon to check on the conditions:

9.00 a.m. Saturday morning, with depression centred just North/West of Ireland, a cold front ran through the Westbury area. Around 2.00 p.m. his charts also showed a sympathetic trough running through in an East/West line across the width of England and tracking South Eastwards.

The possibility is that I had a thermal lift to the crest of a weak front, allowing me to use lift created at its convergence with the W.N.W. wind that preceded it. The flight was absent of turbulence, except the landing, but lift and sink seemed really severe in places, suggesting that if I did fly a front, the one that went through in the morning was well left alone.

EQUIPMENT — Skyhook Sunspot, Airstream Prone harness, Litek vario.

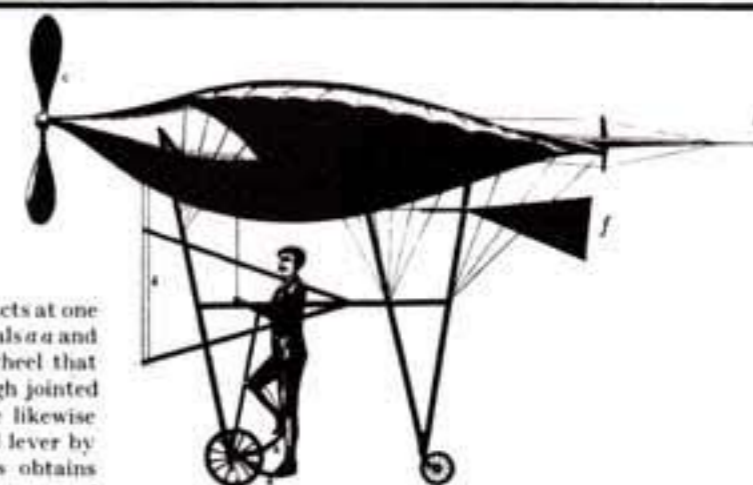


Goupil's flying machine [1885]

GOUPIL'S AEROPLANE

The aeroplane devised by Mr A. Goupil might be termed a sort of aerial velocipede.

The man, in order to obtain speed, acts at one and the same time, through the pedals *a a* and the connecting rods *b b*, upon a wheel that moves over the ground, and through jointed arms *c c* upon the helix *e*; and he likewise acts upon the rudder *f* and the tail lever by means of cords. As the apparatus obtains velocity its weight diminishes on account of the increase of the vertical reaction of the current, and, finally, it ought to ascend and maintain itself aloft solely through the motion of the helix combined with the sustaining action of the wings and regulating



and directing action of the rudder. Equilibrium must be maintained through the displacement of the man's centre of gravity.

Air Worthiness



Clive Smith replies

Len Gabriels seems to place little value on the present BHGA C. of A. and suggests it has no meaning on the Continent. The BHGA's Development Officer is currently representing our interests abroad and has been delegated a major role in implementing common a-w standards. I think it is fair to say that the majority of European countries put British participation as a pre-requisite to accepting common standards and reciprocal agreements. Common Standards for International Competitions are already agreed and are substantially those of our present system. Reciprocity between countries is likely to be based on individual agreements initially since an unsatisfactory blanket agreement could be worse than none at all.

The Austrians, Swiss and Germans have a comprehensive system with reciprocity, and as an example of the ad-hoc nature of such arrangements, the Swiss prefer their drop-tests and extreme flight tests to the German test-rig results and vice-versa. Currently, they agree to disagree! Holland, Lux/Belgium and France do not have schemes but attend the CIVL meetings, as do Hungary, Australia and America. Japan, Spain

and S. Africa will also attend the next meeting of the CIVL A-W Executive to be held here in the Autumn. The USA controls a-w via the manufacturers' own stringent requirements but elsewhere total manufacturer control does not totally satisfy the governments. In Germany and Austria their Law requires a C. of A. and it was to avoid this possibility here that the BHGA has a historical obligation to the CAA to operate a scheme in spite of problems with disclaimers and British Law. John Ievers of the BHGMF has worked hard at overcoming many obstacles to the issue of C. of A's and most companies now carry public liability insurance as a matter of common sense, together with the introduction of a registration document certifying each glider conforms to type.

Our present system is based on sound aviation practice, that of double checking. Vetting by independent engineers is the heart of any a-w scheme, and the bottom-line as far as Insurers are concerned. Accident Investigation and Airworthiness are intrinsically linked. With obvious aerodynamic or structural deficiencies even a rudimentary registration scheme, together with a-i feedback, puts two and two together pretty quickly, and the repetitious French and US accidents occurred because one or other of these functions was absent. Since we have the best a-i team in the world you'll appreciate why I think you underrate our present system.

Although it will allow quantitative performance R&D I don't agree that our designers are falling behind because of the lack of a dynamic test-rig.

There are two more obvious reasons:-

1) The commercial desire to slow down after a period of rapid development, consolidating the present situation. However, this requires some degree of kudos with which to influence the market, and pilots are becoming conscious of this and not sticking with one make, as in the past.

2) The philosophy that h-g design is still an art that science doesn't apply to. As with flying itself, the art, to advance, must be based on sound principles. The Americans have their massive research facilities (and their pseudo-scientific jargon) and the Europeans always seem able to introduce technology into their cottage industries (e.g. the German dominance of the high performance sail-plane market)

Pilots want performance, however it is defined, and sales show it.

We easily have our share of imagination and design flair in this country but the blend of art, science and empiricism needs improving to give us a fair chance in foreign markets.

Your concern over the inability to verify the aerodynamic characteristics outside the normal flying envelope is shared by many, including myself. The acquisition of this facility will allow us to update the whole scheme, widening its scope. Apart from the above, I'm sure you'll agree that both flight tests and handbooks suffer from insufficient detail. Structurally, there is general debate over static-vs-dynamic testing, and I'm in favour of retaining an improved static test for just one size of type with *proof* testing of *all* production variants on the rig.

However, the prime responsibility always lies with the manufacturer, especially when rapid advances are being made. Therefore I can't see how h-gs *can* have more performance, be airworthy *and* be cheaper. The facts are that not one manufacturer could offer dynamic testing to the AIB when the issue was brought to a head by their requirements as late as mid 1979. It was left to the CAA to finance the common BHGA/AIB requirement. If the requirement and full support of all the manufacturers had existed I'm sure the BHGMF would have built a short term back-up rig - there's always been room for two!

To dispel your fears about the CAA/BHGA rig I can say that the CAA and AIB are happy with the design and construction, and I am confident of its capabilities. The contract was signed in Aug '79, it was built and initially tested in February, delivered to the AIB in March and is now being debugged and calibrated, requiring calm weather. The CAA took a bold approach on seeing the foreign rigs, and embodied advanced concepts, to be sure that the results are meaningful and comprehensive enough for the foreseeable future. Their interests are obviously ours, as well, and we want to see it in service soon. But we can't pre-empt the AIB's duty to produce a worthy report for Parliament, or jeopardise its subsequent accuracy and usefulness.

There is much more to stability than static pitch curves show, and having missed by several years the introduction of simple rigs we must look ahead, and produce a-w standards that reflect the true in-flight behaviour, giving designers more scope for development. Although the BHGA is a somewhat unwilling partner in the present situation, the CAA policy of not duplicating foreign rigs seems wise, and the BHGA's original negotiations to obtain a test-rig should be seen in the light of financial constraints and long term satisfaction. We are in close contact with the AIB's Farnborough activities and I am planning on an October in-service date. Please contact either Rory Carter or myself for further information.

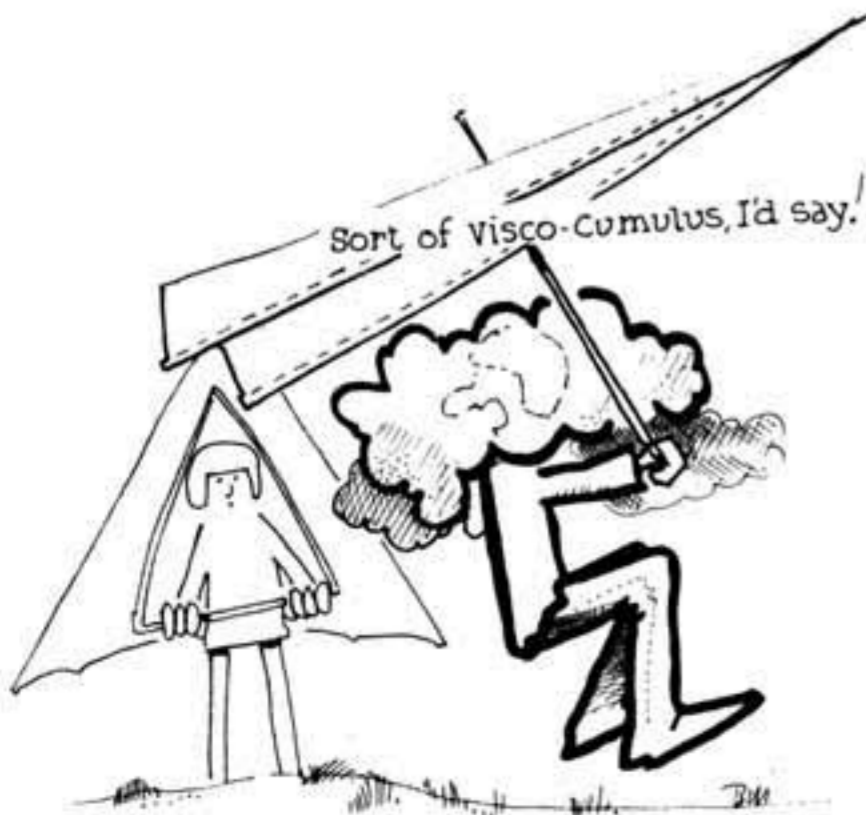
Clive Smith
Airworthiness & Technical Officer, BHGA

The Beginner's Glossary

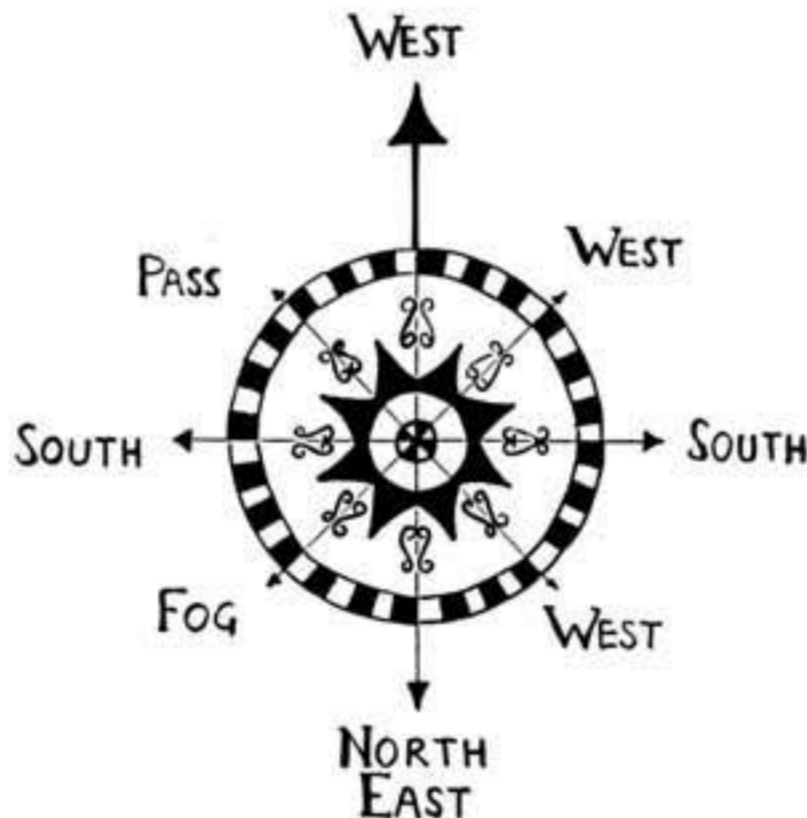
A is for **A-FRAME**. This metal bit can usually be found beneath the sail, and is so called because every structure on a hang-glider can, with a little imagination, be made to look like A... except this one. A-frames are triangular tubes which are used to mount instruments on. Often an A-frame will have one or more slight bends in it; far from suggesting any incompetence, these bends are the traditional way in which a young, inexperienced flyer can express his admiration of the skills of another, more able pilot. When you first visit a hang gliding site, have a look at the kites on top, then be sure to put good sharp bends in at least three A-frames. In this way you will quickly make friends with the local pilots.

B is for **BAG** — an essential piece of equipment, with two common variants: bright rubbery ones which don't let water in (or out, if you get them full), and dull black nylon ones which don't do anything apart from hide what's inside. This is pretty important to the average weekend flyer who, with his Grasshopper securely secreted in its bag, can casually let slip the most awful whoppers about how he's been tweakin' up his Cyclone, etc. If you're going to use this tactic, do so with considerable caution, as occasions can arise where it is socially unacceptable to keep the bag zipped up for good. Readers are urged to keep at least some sort of kite in the bag — at least then you can claim you brought the wrong one by mistake. Whereas twenty feet of beanpoles and crumpled newspaper is a lot harder to explain away.

Clouds are whitish things in the sky. There is only one sort of cloud (called **CLOUD**) as all normal weekend flyers know, but just occasionally you may come across someone — usually a league pilot or Flat Earth campaigner, gazing upwards and jabbering words like stratus/nimbus/cumulus, etc. He's probably smoking something a bit on the strong side, so leave him to it, but if he attempts to engage you in further discussion, the best plan is to invent a fictitious cloud type and say you expect it to start forming any second. The easiest method is to perm any one of cumulo-, nimbo-, alto-, and cirro-, and attach it to any one of -stratus, -nimbus and -cumulus. Avoid obvious no-nos like cumulo-cumulus and nimbo-nimbus, but by all means toss in 'lenticular', if you can remember it. As with all tactics of this type, don't go way over the top or you could end up explaining to a real fanatic what an undecylenic potassium ferro-cumulus looks like.



The **WIND DIRECTION** is important to hang gliding people. Unfortunately, unless you've got a weathercock on your roof there's no easy way of finding out what the true direction is. Readers who are new to the game, and green enough to think that phoning the Met Office will do this, have clearly not had it explained to them that all weather forecasters these days use the British Universal Meteorological (BUM) compass.



This is what flyers mean when they talk about "getting a bum direction from the Met."

The **E.P.C.** is, alas, no longer with us. It is an ex-certificate. Time was, when an E.P.C. had the same sort of bird-pulling power as a new set of drapes and a 650 Norton. Men with E.P.C.s walked that bit straighter, their shoulders that inch broader. Damp-eyed veterans told stories of how, in the days before Cam Long Down, the clouds parted and The Lord, clad in purest shimmering samite, brought forth Excalibur in one hand and a pad of E.P.C.s in the other, etc., etc. Talk about clout... it made an American Express card look like an M.O.T. failure slip. Now, at the bottom of that huge pile of BHGA paperwork in the sky, it will be remembered for its own little peculiarities, like you could understand it and you didn't have to get it signed by your MP or a bishop or anyone.

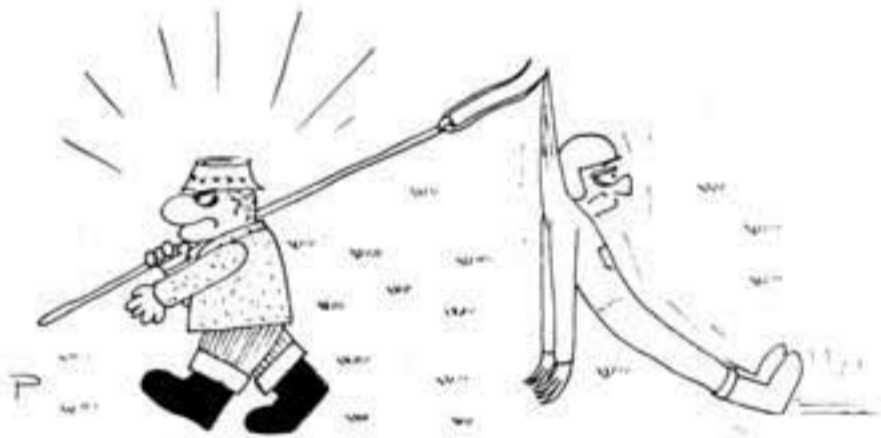
FARMERS. Now the popular image of a farmer is that of a large, friendly man, with a ruddy complexion, cowshit on his wellies, surrounded by dogs and leaning on a pitchfork. This is wrong — if you see someone like this he's probably an accountant or marketing director on a fortnight's Ongoing Rural Situation Involvement course. Farmers are, in fact, small, wan, impatient little men who only alight from their Range Rovers to fill in EEC claim forms.

When dealing with farmers, such as when negotiating a new site, or reporting a minor mishap like the death of a Charolais bull, it's as well to remember a few basic rules:

(i) At all times avoid his eye — instead you can flash blatantly suggestive smiles over his shoulder at his buxom daughter (they all have them and of course no girl in her right mind can resist the average pilot. You didn't realise that? Oh.).

(ii) Don't mention money unless, or until would be more accurate, he does. The following schedule, while it does not set out to be definitive, will give the reader a guide to values at the time of publication:

Flying site	£1
Item of livestock/junior farmworker	£10
Daughter/Landrover	£200-£5,000
depending on year and condition.	



GOLF courses. When landing after a cross-country, golf courses are among the worst places to land. Not only will you have to buy a round in the clubhouse, but every attempt you make at getting the conversation round to something interesting, like hang gliding, will be foiled by middle-aged old bores who think you're going to be thrilled to hear how they and old Mashee McLaughton both birdied the 18th in 1926, and stuff like that.

For this reason, most serious hang glider pilots carry with them an Ordnance Survey map of the Cherbourg Peninsula. With a stage Gallic accent and a packet of Gitanes, it's a doddle to make them think you've just flown the Channel, and in no time they're standing you pints of Pernod and introducing you to cheese-and-onion.



of Hang-Gliding Terms

Compiled by Rod Bird

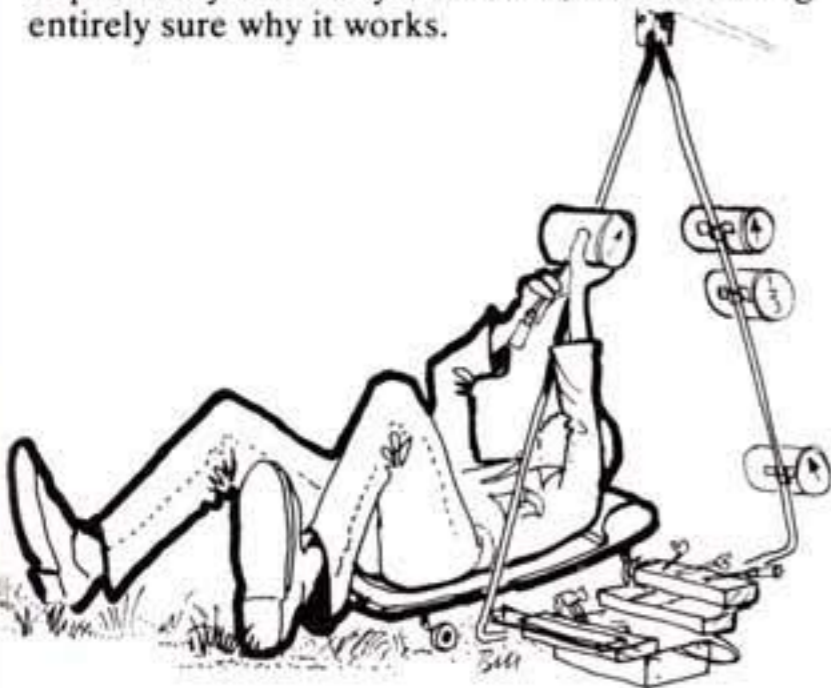


HARNESSES, (n), a device that causes discomfort to the genitals. Harnesses are measured in octaves, i.e. a 2-octave harness causes a fourfold increase in your normal speaking pitch. Beware makers' advertisements; harness manufacturers are excluded by statute from the Trading Standards Act. Claims such as "Brian Milkman has flown 50 miles in the Orgiastic Comfort of a Prono Relaxette Harness" would more accurately read "Rod Bird's chances of raising a Large Family have been cruelly reduced by a 10-second swing in This Bastard."

INSTRUMENTS are a bit like badges, except that you stick them on your kite instead of your flying suit. Prices range from about £20 for one that just sits there looking good, up to around £150 for one that goes click-click or beep-beep-beep-woo.

Try and avoid instruments with dials that can be understood by the general public. At the bottom end of the market you find really cheap units with simple, comprehensible calibrations, such as ft/sec. Nobody will be impressed by this. It's well worth spending a few pounds more to get a dial marked up with something utterly indecipherable, say kilobars/joule, or newton-atmos/°C.

If you can't afford instruments, a good idea is to take an empty baked-bean can, scrape the beans out first of course, then jam a piece of cardboard in the end, carefully stencil some meaningful-looking units on it, and spray the rest matt-black. Clamp the assembly to your A-frame, and practise gazing at it, whilst at the same time emitting a long, low whistle through the teeth. This makes other flyers think that you have a quantitative assessment of some climatic oddity which should be obvious to them, but isn't. A useful flourish here is to pluck a screwdriver from your pocket, insert it in a small hole in the baked bean tin and waggle it around, looking at the "dial". The author has used this impressively on many occasions, without being entirely sure why it works.



JARGON. At first the newcomer may feel a little uneasy about conversing with experienced pilots, as communications on the hill, and in the pub afterwards, appear to be conducted in a peculiar banter which is quite unlike anything he's encountered elsewhere. This is a pity, because the basic principles of hang gliding jargon are but few, and once mastered will facilitate full integration into the hang gliding community:

- (1) Hang gliding jargon is sacred. Never ask what a bit of jargon means, and never, never admit to not understanding it.
- (2) It's still sacred when you've found out what it means. In other words, don't explain jargon to anyone. This would be throwing away a hard-earned psychological advantage.
- (3) Just because you don't understand it doesn't mean you can't use it. Initially you might feel something of a cad reeling off crisp one-liners like "there I was coring into a slight inversion" or "I eased her from min sink to L/D", without having a clue what you're going on about, but take comfort in the fact that everyone else is doing the same as you. So low, to be honest, is the overall level of understanding, that bits of jargon have acquired different meanings in different parts of the country. The phrase "going for it", for example, in the South of England implies embarking on a cross-country, while in parts of the Midlands and Wales it means emptying the bladder before take-off.
- (4) By all means invent new jargon, but try to make it sound as if it's been around for years. Let's say, for example, you're socialising on the hill when some squire comes biffing past on a Cherokee. If you're in the mood for a little jargoneering, clever-dick remarks about Injuns or the-lifts-a-bit-apache-I-see (patchy — get it? Rather good, actually) will be ignored, whereas an offhand description of conditions as "orangey" sounds so unlikely it's a cert to impress your colleagues, and rapidly enters the hang gliding vocabulary. This is, in fact, how "peachy" was invented. The bloke was eating a peach when the creative urge took him.

KIDS are small, rather noisy humans who reduce flying time. Usually they start to appear just as you're beginning to rig up. "Is it a canoe?", "How far do you go?", "What's that thing for?", "Can my Mum have a go?", "Why don't you get killed?", "If you're looking for that plastic bit Kevin's taken it to show his Dad", "There was one on telly and a man was flying it and it had a thing on and it crashed and it was a blue one and it was after Blue Peter and..."

A colleague insists that the only solution is a sudden and merciless act of violence on the nearest child. Effective, certainly, but it's generally worth trying diplomacy first. Reliable opening gambits for getting rid of children are: "Ask that man over there", or "Go and tell those men Jeannie Knight says they can't fly here", or "Sod off you precocious little baskets."

If you have to hit one, choose the smallest. Make sure its parents aren't around, then give it one. (Hint: Avoid serious injuries which may precipitate litigation by parents. On no account admit liability).



LANDINGS can be split into two distinct categories — those that go according to plan, and those that don't. The first sort are probably more common, are more fun to do, but not nearly as much fun to watch. The second type has a huge number of variants, the most popular being The Plough (downwind), The Topiarist, and The Triple Salchow (in which one wingtip lands first). Less often seen, but equally good to watch, are the High-Ho Silver (on to horseback), and The Electra (national grid). Always be on the lookout for real collector's items. For instance, few people have witnessed the spectacular "Big Sploosh", requiring, as it does, the presence of an open cess-pit, but to the true connoisseur such an event makes hours of patient observation worthwhile.



The Bishop Animals—

under six minutes, heart stopping heavy turbulence (John North's whole body contacted the keel on one occasion) and flights in canyons of such devastating beauty that they take the breath away. I was drilled at the top end of a four and a half mile canyon and, being thrown around in enormous rotors I fell out of the sky in frightening sink.

I admit to trembling with fear at one point as the bottom of the canyon closed in on me, and the sky darkened as I slipped and dived involuntarily within thirty feet of one thousand foot high jagged rock walls, joining together at the bottom in a rock waterfall with drops of one hundred feet down which water roared in a white angry slash. The base of the canyon was about fourteen feet wide and fell in a series of dazzling, tumbling precipices at about thirty degrees. I really believed my end was within a few minutes of flying away at one point, but skidded out of a gap at the bottom, my wings feeling to scrape the rock! The intensity of life after that horrifying trip flooded my body, and drunk with adrenalin I worked the flank next to the canyon for two solid hours and eventually made it back up to the spine at fourteen thousand feet. Oh, but this is free flight indeed!

The staggering splendour of flying in the Owens Valley turns one into a fanatic for the area. It is almost the limit. Go there and fly for the time of your life.

Regarding competition in the area, all true pilots must accept that this, the greatest challenge in the world has to be faced by all nations professing to breed XC pilots. The Owens Valley XC Classic will remain as long as hang gliders fly. Britain should face it annually.



PLACES—approximate only since the final scores have not yet been calculated.

1	Rich Pfeiffer	59.5	points
2	Rich Grigsby	63.75	points
3	Jeff Burnett	73	points
4	Larry Tudor	73.75	points
5	Andrew Barber-Starkey	77	points
6	Alan Reeter and Ian Jarman	82	points
8	Mike De Glanville	108	points
9	Bob Kells	110	points
10	Butch Peachy	111	points

NO "RECORD" PETER

I'm sorry to say that the FAI are unable to register the flight as a British National record. Peter, unfortunately, was not carrying a barograph, which in a distance flight indicates that no intermediate landings were made (4.3.5. Section 7 FAI Sporting Code). This does not mean that the BHGA don't recognise this record flight. For the future, though, record attempts will have to be planned. Spontaneous attempts will always be part of our sport, and will receive their due recognition in our magazine, 'WINGS' but without the correct preparation and paperwork they won't be official. With the future in mind I'm going to draw a line. From the 1st of January, 1981, all record distance claims will have to be supported by a certified barogramme.

Rick Wilson

1980 DIARY

August

2/3, Steyning Open, Sussex, open to intermediate and advanced pilots. Entry fee £3, organiser Jeannie Knight.

3/11, Japan Dry Run for 1981 World Championships, Derek Evans and Jeremy Fack to go on recce, sponsored by Celtic Line.

9/11, Fifth League, Bristol and Stroud area, organiser Colin Lark.

13/20, Understanding weather. Course at Met. Dept., Edinburgh University. £70.

16/24, Bleriot Cup, Lachens, South of France. Anglo-French Team XC, teams of 8. Managers, Brian Milton and Steve Goad.

September

5/7, Clubmans Mere, 5 events, open to everyone, defending Club champions are Northumbria HGC. Entry fee £5, camping included, organiser Bob Mackay.

12/14, League Final, Llandinum, mid-Wales, organiser Paul Bridges.

October

11/19, American Cup team championships, Tennessee/Georgia, USA. proposed 7 national teams: Great Britain, USA, France, Canada, West Germany, Brazil and Australia.

17/19, Army, Jt. Service championships.

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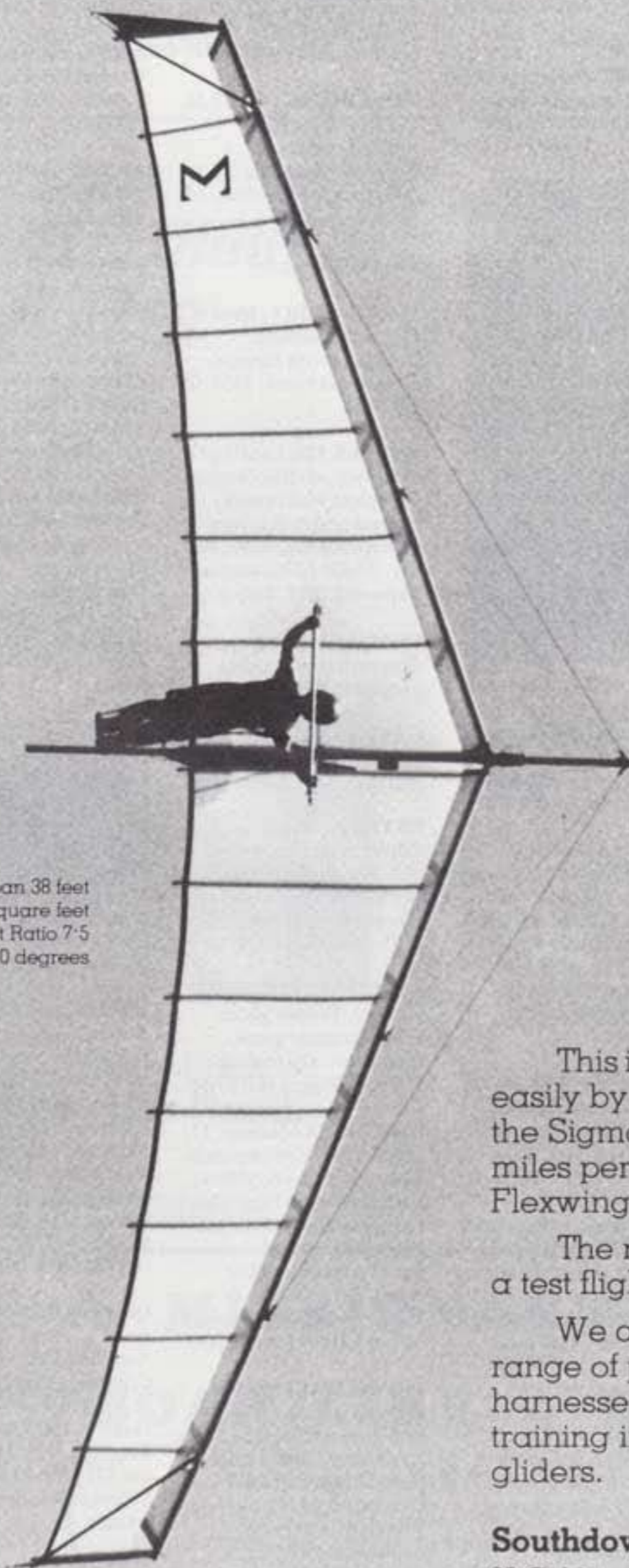
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All small ads should be sent to Silvia Howard, Commercial Editor, *Wings!*, 4 Somerwood, Rodington, Nr. Shrewsbury, Salop. Ads sent to any other address will be redirected and therefore delayed.

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.

IIM SIGMA, very good condition, now flying 12M. £525 o.n.o. Tony Fletcher, Swansea 49825 (home) or Swansea 42751 (work).

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GRYPHON, excellent cond. Any reasonable offer. Ring Roger or Paul on 01-672 1589, daytime.

WANTED. Very cheap hang glider or simple fixed wing glider. Some damage acceptable. Phone Portsmouth 818217, evenings.

MIDAS SUPER E knockdown. Very good cond. This glider has been flown in winds of 40 mph. Good all round glider. £200. Phone 0344 27153, evenings; 0256 5623, ext.2006, daytime.

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WANTED. Super Scorpion B in good condition. Barrie Colvin, Kings Lynn (0553) 62918, daytime.

SCORPION B. Ideal for P1. Converting to prone. Excellent sink rate, fairings. £200. Brighton 602562, Dave Woolford.

FALCON III B. Breakdown model; multi-coloured sail; seated harness; bag. Factory checked and tuned. Any reasonable offers! Martin Badgery, 01-950 4030, ext.265; 01-863 8727.

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CYCLONE, small, 165. Good condition. Five months old. Unrivalled performance. Reason for selling - given new glider. £450 o.v.n.o. Humming bird variometer. Excellent condition. £80. Tonbridge 357413.

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Ready for the best? Beautiful **CYCLONE 180** in excellent condition. Financial problem forces sale. Bargain at £420. Competent flyers telephone Littlebourne 614.

Large **SPIRIT**. Flies beautifully and easy to handle. £135 o.n.o. Phone Jeremy Walke, Southampton 771061, ext.46 (office hours).

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CHEROKEE Medium. 11 months old. Centre panels white, lime green, yellow, special gold, red tips. Quick sale. £400 o.n.o. Chargus harness plus rated Steinbach chute. £120 o.n.o. Tel: Dave, Maidenhead 30580, Bob, M'head 31849 (after 6 pm).

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STOLEN. Black-painted audio Arbee Vario at Scottish Champs. 6.00 pm. Cairnwell Chairlift, Sat., 5th July. Info. - Henry Heggie, Tel: Kippen 506.

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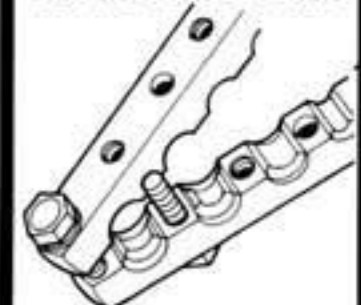
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In the JULY issue of Wings! the price of fairings in the advert from Dave Simpson, Ultralight Flight Engineering (Tel: 0462 52103) should have read £25.00 and not £21.50.

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