

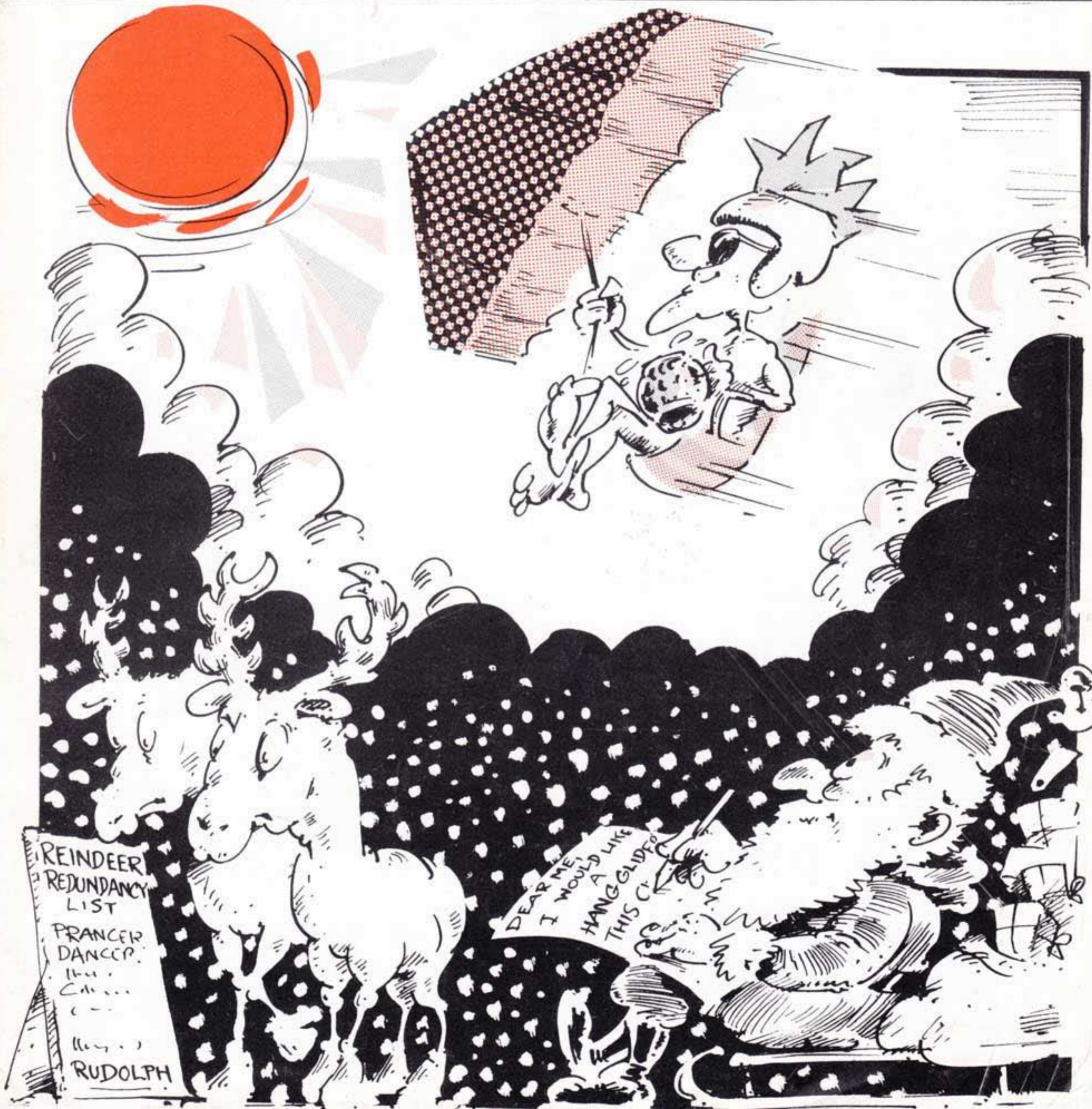
# Wings!

CHRISTMAS, 1982



The designer and his creation — a profile of Hiway's Miles Handley, P6

Magazine of the British Hang Gliding Association



# Wings!

*Wings!* is edited and designed by Stan Abbott and published in the second week of each month by the BHGA. Additional sub-editing by Martin Robinson.

## Editorial material ONLY to:

72 Hartley Avenue,  
Leeds,  
LS6 2LP.

All other correspondence, including advertising and subscriptions, to the BHGA at the address on the back page.

Cover graphic by Harry Hammill

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## On other pages

Pages 4-5 - News

Pages 6-7 - STAN ABBOTT talks to Miles Handley, the man behind Hiway's new glider.

Page 9 - Power news.

Pages 10-11 - Your letters in Air Mail.

Page 13 - Design forum.

Pages 14-15 - Pictured below is a scene over Bradwell Edge in the Peak District. It was taken by Graham Hobson and first appeared on the cover of March Wings!. It's No.12 in a selection of the year's best photos from which we invite you to select the Picture of the Year.



Pages 16-17 - British Clubs Guide.

Pages 19-19 - News.

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Pages 22-23 - A Christmas parable by Mrs. Biggles.

Pages 25 and 28 - Classified section.

Page 27 - Cosmopolitan.

The editor and all those involved in the production of Wings! wish all readers a Merry Christmas and Happy Flying in the New Year.

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Peter Harris



Santa "on finals"



Picture - Evening Argus, Brighton

# Santa flies in!

SANTA arrived by hang glider at Debenhams in Hastings - thanks to the Southern Hang Gliding Club.

Father Christmas (alias Peter Harris) was repaying a favour from the store who loaned the club a Santa outfit in January for the presentation of a cheque for the Stoke Mandeville appeal to Jimmy Savile. Peter writes:- 'Les Seers was to fly me in a dual trike with Kevin May as escort in his Demon Trike, and all the pre-event publicity was aimed to restore the microlight image following the recent series of tragic accidents.

'Both pilots, highly competent and experienced in powered and unpowered hang gliding, have frequently flown Hastings and gained distinction in the many carnival events we have held here.

'After several weeks of planning and preparations and pre-event publicity Friday's forecast of increasingly strong winds pointed towards a big let-down - you don't fly microlights in 30mph winds.

'On Saturday morning all our local Hastings hang glider pilots were busy setting up windsocks and markers on the beach and organising a couple of dozen ATC cadets into ground crews and crowd control.

'The ATC also provided radio contact between take-off and landing areas and John Pyke briefed a dozen or so media photographers who turned up. Something just had to happen - and it did.

'We decided to free fly from Hastings Cliffs to the landing area - some 1½ miles along the beach - where crowds were gathering. Substituting a red helmet for the Santa head gear, and stuffing the white beard and wig in my pocket, I followed Les in my new Typhoon shooting up like a rocket to 500ft. above take-off.

'When Kevin joined us, a few minutes later, we set off in line across and above the Old Town Valley to the castle losing

practically no height at all.

'Still in line, 360ing over Bejams, Woolworths, Debenhams and the pier, we saw the parachute flare had been set off and it was time to burn off height and set up our beach landing approach.

'Three text book landings! An undignified stumble on the shingle just wasn't on with hordes of kids and their parents and the photographers. Our lads were ready to grab the wires and it was smug smiles all round.

'The police held up the traffic as I was ushered across the road, surrounded by kids and their indulgent mums and dads, to where the management of Debenhams were waiting at the entrance to receive me, headed by Hastings' most beautiful Carnival Queen ever - (my daughter, Johanna!)

'Les and Kevin were supposed to join me with the proffered port and hot mince pie, but we were separated by the crowd. The port reddened my beautiful white beard and gulping the mince pie gave me indigestion as I was hustled into a vintage Ford and whipped away in the procession.

'Sack hanging outside the door - there wasn't room inside - I straightened up my wig and hat and recovered some measure of dignity and settled back to acknowledge the waves of the kids lining the pavements.

'My brief reign as 'God' ended half an hour later after a great deal of ceremony in Debenhams. I went into a specially reserved lift on the ground floor and Debenhams' own Santa emerged on the third floor and started work in the Toy Fair. I hope the kids didn't notice the difference because he wasn't as good as me!

'So at the end of it all the club had done a very good job for Debenhams - and they had given us a first rate opportunity to improve our image - already pretty good - in Hastings.

'Merry Christmas All - Ho Ho Ho'.

## A message from Ruth

WITH the rapid approach of the festive season, and the completion of my first half-year at 167A, it seems an appropriate time to write a few words of thanks to all who have helped make my introduction to the BHGA and all its tributaries a very happy one (writes Ruth Kohlman).

I think I can honestly say that I didn't know what I was letting myself in for, and I'm truly grateful for the assistance I've received from all quarters, parti-

cularly Janet and Joyce in the office, who fortunately for me, are gold mines of information and have shown endless patience in explaining things, and then explaining them again!

Also thanks to Barry and Bob, the BHGA Council, Stan, Carol, and last, but not least, all the members who have wished me well with the job. Many of you have asked if I find it boring - the answer is that time flies by, there's

never a dull moment, and everyone I have met, spoken to or corresponded with has made me feel I have been adopted by a very large family.

Lastly, very best wishes to you all for a Merry Christmas and a Happy and Successful New Year. Don't forget, if any of you are passing Taunton we're always pleased to meet the face behind the name, and if your timing is right you might even get a cup of coffee.

### A tale of two clubs and two nations?

IS the future of British hang gliding in safe hands?

Tim Williams sounds a gloomy message in this month's Air Mail in what is traditionally the season of good cheer.

And yet his doom-laden words of despair struck a hollow note with me... until I popped the lid on my mole's eye vantage point and did a little investigation.

My trouble is that I belong to a thriving hang gliding club whose membership is growing to such a point that we are now having to look for new premises for our monthly meetings which are regularly attended by getting on for 100 people.

Hypothesis: membership of the BHGA is declining. Fact: membership at the end of October stood at 3,572 compared with 3,613 a year ago, suggesting a levelling off from the decline over the preceding year when membership fell from 3,987.

But look a little deeper and you learn that more than one third of our new members come through the Army Hang Gliding Centre — nearly 200 this year.

This means two things for the BHGA: firstly that the service fliers are allowing us to hold our ground in the face of a real decline among the public at large (remember that the encouragement of hang gliding in the services is a relatively recent "innovation").

A secondary implication of this position is that the nature of the BHGA's membership at large must, per se, be changing.

For those members and potential members drawn to hang gliding by its equation with things quiet, peaceful, non-polluting and "non-macho"; those who enjoy our self-discipline rather than an imposed, military discipline, such a change could prove counter-productive: our "macho" image already means that we draw no more than a handful of members from 50 per cent of the population...women.

But I digress... what is the reason for our decline and where is it most apparent. In the absence of hard evidence — it is a long and costly operation to contact every single club — we can only postulate and talk generalities. But, hopefully such generalities will promote constructive and informed debate.

The opinion polls tell us Britain is becoming increasingly a divided nation with overwhelming government support in the affluent south and quite the opposite elsewhere.

I believe we are also becoming two hang gliding nations and yet, paradoxically, it is in the South rather than the depressed areas that we find our biggest problems.

You don't need a degree in geography to know that not only does the South have

the most wealth and the greatest concentration of population, but it also has the fewest hills and the most intensive agriculture.

Hence, southern fliers in general have to buy more petrol to travel further, less frequently to more crowded sites than their northern and Scottish counterparts.

When they get there they will probably find they know fewer people (as a percentage of the "flock" gathered), experience more "site problems", and are likely to find themselves paying more for club membership. Membership of the Southern Club alone is a staggering £25... staggering, that is, in comparison with the North where — by virtue partly of reciprocal arrangements — you can join every English club north of the Humber and still have plenty of change out of £25.

At a time when even those in the South must be feeling the pinch, there are clearly rising costs that militate against the sport and yet — again, in very general terms only — we do seem to be holding our own in areas where the depression is biting hardest. The Pennine club, for example, after a period of desertion to the excellent triking afforded by the North West's ample beaches, is enjoying a mini-boom, with an influx of new members swelling its ranks to more than 100.

**Stan Abbott,  
Editor**



But it is here that lies, I believe, the fundamental problem facing hang gliding in Britain today and it's a problem brought about, ironically, by our own success.

It is the problem of maintaining and developing the interest of people new to the sport in the face of an ever-widening gap between the "nonk" and the "ace" — and the ace these days can actually be a fairly average pilot, but "armed" with a fifth generation glider.

For the novice fresh out of school, to emulate even the weekend flier on a good glider must seem almost hopelessly beyond reach. And yet, at the very time the novice needs help, advice and encouragement, there are — as Marc Asquith suggests on page 21 — increasingly fewer people there to give it.

Why? Answer: because the aces are at 3,000ft., or they've gone XC, or — in the case of the south — they've gone to Wales or the Dales for the sort of flying most southern sites can't offer.

Now, the solution to this problem lies very much with the clubs and there are good clubs whose example suggests the solution is within the grasp of any club that puts its house in order.

For the geographical interpretation really throws light on just part of the problem. I can think of at least one other club — not in the South of England — where, to be brutally honest, there is really no incentive whatever for the novice to further his/her flying career on joining the club. Its committee has dissolved in disarray, with those willing to do the graft quitting because they're fed up of getting no backing.

Members greet the arrival of a club newsletter with the awe and wonderment normally reserved for a total eclipse of the sun. "Bar room flying" is all too often a more comfortable substitute for the real thing.

Why has this happened? The simple answer is that those leaving the "driving seat" have not ensured that their valuable heritage is vested in the hands of people with a real love for the sport and a real concern for its future. The lesson from elsewhere is that, once a strong tradition is established, the right VOLUNTEERS will be forthcoming to guard the future.

I know another club where the aces often vanish XC but an adopt-a-pilot scheme nonetheless ensures that every novice enjoys the individual attentions of a more experienced flier: where the off-the-hill scene is just as important and everyone from nonk to ace joins in coaching seminars.

An interesting social programme is vital: film nights, talks by the guy from the local weather centre, parachute packing seminars etc.etc. are all arranged for the corresponding night each month and notified well in advance through a regular club newsletter, rather than an infrequent "magazine". The club constantly readjusts its thinking in the light of experience.

Getting the right people at national level is just as important. At the last AGM the situation was such that a one-eyed monkey would have got elected to council if he'd shown willing.

It is not taking anything away from our present councillors to say that this is unacceptable in a democratic organisation. You will note on the back page that our next AGM is coming up and it's vital that members who CARE start now to lobby the people with whom they want to entrust our future and persuade them to stand for ELECTION. I WILL PRINT ANY "MANIFESTOS" I RECEIVE so long as proof of correct nomination is provided.

We have crucial policy decisions facing us... what should be our stance viz power? should we accept registration? how much can we afford to pay to protect sites in court battles? should we establish a National Centre?

To advance the "two nation" theory further, should those in the North and Scotland entrust their future to a council with an overwhelming "southern" make-up?

To those who really care about hang gliding, I wish you happy flying in the New year.

## Hiway glider set for launch



HIWAY's radical but as yet unnamed new glider was expected to be going into production as Wings! went to press.

But the "Incognito" is a substantially different machine both from the old Alien and an earlier tailed prototype using wing twisting for control.

The production machine relies instead on weightshift — activated spoilers for control. It is a rigid wing with a near vertical surface at each tip and relying on conventional style hang glider battens to maintain its profile.

It looks very much like a traditional hang glider with a generous area of double surface, but the external

appearance conceals more radical innovations... the glider is without leading edge tubes, relying instead on a main spar with internal wire bracing.

The Hiway team of designer Miles Handley and test pilot Keith Cockcroft say the glider has higher min sink and max glide speeds than fifth generation machines but really comes into its own at speed. They claim the Incognito maintains a respectable glide at speeds way in excess of any other glider around.

• Picture shows the Incognito in silhouette over Rhossili. — Mark Junak

# Milk Hill rules

OVER the past year, relations between the Nature Conservancy Council and the Thames Valley Hang Gliding Club have become delicate.

Continual infringements of the site agreement at Milk Hill, Wilts, and a fatality last year have not improved matters.

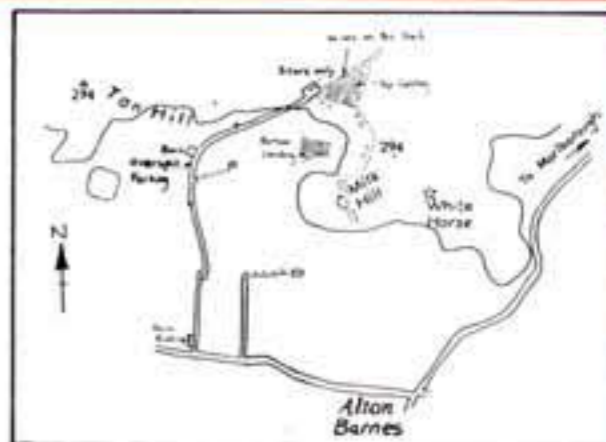
I would therefore request that all pilots visiting the site comply with the following rules.

1. BHGA members only.
2. No vehicles on hill top.
3. No lone flying.
4. Five cars maximum in designated car park, one space left for nature reserve warden.

5. Overspill parking adjacent to barn at the bottom.
6. Mid-week flyers to contact club, so we can keep records of site use.
7. Top and bottom landings in designated areas not in growing crops.
8. No top landing in area to the West of car park.
9. Do not climb fences, use the gates.
10. Site fee £1.00 (non-TV members).

Milk Hill is a nature reserve with specific areas set aside for the habitat of wild life and flora. Mr. Painter, the Reserve Warden, will be keeping a close watch on the behaviour of pilots using the hill.

Bryan Kirk — Chairman  
Thames Valley Hang Gliding Club



### Contacts for midweek flyers:

Bryan Kirk, Tadley (07356) 6934  
John Sheppard, 01-578-7786  
Ernie Walker, 0635-253503  
Tony Hughes 0672-810521

# Not just luck of the Devil!

## Results Average of 3 flights

	1/	2/	3/Average (Ks)
1 Michael Carnet	40.4	30.3	36.7 35.8
2 John Barratt	9.7	69	14 30.9
3 Brian Harrison	44	21.2	— 21.7
4 Johnny Carr	42.9	7.3	— 16.7
5 John Pendry	9.4	7.8	26.9 14.7
6 Bill Newton	31.1	11.4	— 14.2
7 Roland Delez	6	5.7	22.6 11.4
8 Dave Woolford	9.9	12.8	— 7.6
9 Dave Clayton	21.8	—	— 7.3
10 Peter Banner	16.9	—	— 5.6
11 Joe Anderson	14.4	—	— 4.8
12 Steve Botham	5.2	—	— 1.7

## Longest distance (in Ks) (Best ten)

1 John Barratt	69	Rye Golf Course
2 Brian Harrison	44	Norman Bay Station
3 Johnny Carr	42.9	Norman Bay Station
4 Michael Carnet	40.4	Pevensay Bay
5 Michael Carnet	36.7	Eastbourne
6 Bill Newton	31.1	Cuckmere (Friston)
7 Michael Carnet	30.3	Long Man
8 John Pendry	26.9	Seaford
9 Roland Delez	22.6	Newhaven
10 David Clayton	21.8	Newhaven

MICHAEL Carnet has won the main honours in the first Devil's Dyke XC competition — a season-long contest inspired largely by Carnet himself.

His average distance on his three best flights was 35.8km and it was consistency that edged him clear of second-placed John Barratt who won the prize for the longest single flight — 69km to Rye golf course.

## Visitor

Michael took prize money of £243 at a ceremony at Devil's Dyke Hotel on October 30 and John, £81. The £25 Novice Cup for the best effort by a pilot who had not previously flown XC was won by Roland Delez, a visitor to Brighton this year who has also flown as a guest at the National League.

In addition to the main prizes, a number of local sponsors put up money for the best efforts each month. They included Ultra Sports, Kent Ceilings, Southdown Sailwings Ltd., Reigate Builders and Paint City CB Centre.

John Barratt's 69km (nearly 43 miles) was more than 20km better than the best distance on the Dyke in 1981 (by Johnny Carr) and the good distances flown in what has not been a spectacular year for the site will have justified instigating the competition on the Dyke which offers the possibility of a complete traverse of the South Downs.

Leading results are as printed, left.



Michael Carnet

# ULTRA SPORTS



## NEW LOW DRAG COCOON HARNESS

★ Faired Parachute Container

★ Faired Ballast Bag

★ Zip Up Pocket

★ Stirrup Tube for extra comfort

★ 3mm Low Drag Nylon Supports

★ 2.5mm 7 x 7 Main Cable Support

★ Special Christmas Offer 15% off all Ultra Sports Harnesses

★ Last until February 1st

### OFFICE & FACTORY

Truleigh Sands Buildings,  
Truleigh Manor Farm, Edburton, W. Sussex BN5 9LL  
Telephone (079 156) 526

## ASSESSMENT

### A. PREPARATION OF FLIGHT

Assessment of Conditions	good / average / poor
Pre-flight Checks	good / average / poor
Pre-take-off Checks	good / average / poor
Flight Planning	good / average / poor

### B. TAKE OFF

Flying position	semi-prone / prone / seated
Straps method	tight / loose
Commitment	positive / lazy
Consistency	good / average / poor
No wind take-offs	good / average / poor / not experienced

### C. IN FLIGHT

Flying to Plan	good / average / poor
Turns up to 90°	good / average / poor
Turns 90° to 180°	good / average / poor
Airspeed Control	good / adequate / poor
Roll Control	good / adequate / poor
Response to mild turbulence	good / average / bad
Co-ordination — smoothness	good / average / jerky

### D. APPROACH

Judgement/control of height	too high / correct / too low
Judgement/control of speed	too fast / correct / too slow

### E. LANDING

Airspeed of final flare	too fast / correct / too slow
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## Helping students

EFFORTS to bridge the gap between hang gliding schools and clubs have gained new impetus with the introduction of the BHGA's new Student/Pilot One assessment resumé.

The move follows a decision at this year's BHGA annual meeting and is designed to help novices progress safely into club flying.

The card will help make club coaches aware of a new member's strengths and weaknesses.

• Full details next month.

## Central Fighting Fund

A big "thankyou" to all the following who sent in donations for the fund to the Taunton office between mid-July and the end of October.

Dover & Folkestone Club  
Avon Club  
Aberdeen H.G. Club  
Mr. Louis Homewood  
Mercian H.G. Club

Mr.M. Brown  
Lanarkshire Soaring  
Devon & Somerset  
Condors  
Mr.D. Dawson.

# Birkbeck bottle unbroken...

TREVOR Birkbeck walked almost unscathed from the wreckage of his brand new Typhoon 'S' after falling 1,000ft. when an attempted loop went badly wrong.

Always renowned for his strong "bottle", Trevor was attempting the radical manoeuvre over Wether Fell, Hawes, Wensleydale, without a parachute and thereby earned himself predictably strong condemnation from some fliers.

Dales club safety officer John Stirk, to whom the steeply cranked wing-over (with parachute) is not entirely unknown, commented in disbelief: "To have survived that he was the luckiest person around."

"As soon as we saw him land we got on the CB for an ambulance which came within a couple of minutes."

But, miraculously, Trevor suffered nothing worse than a slight bump on the head when the glider landed upside down in soft peat, the king post and keel absorbing most of the impact.

"I was attempting a loop and it went over at about 160°. It was a new glider and I hadn't put the speed stuff on, like a French Connection and the speed bar."

"I had looped my old glider successfully and I obviously wasn't going as fast as previously. It came over the top and instead of carrying on round it sort of turned out and came out into a barrel roll and the leading edge broke inboard of the cross tube."

"When it went I thought 'Oh shit, here we go!'. It then started descending, flying reasonably slowly upside down, probably because I fell over the back of the sail. My harness etc. was draped over the back."

"After assessing the situation I decided to try and climb back on the glider and turn it back over, which might have actually been error had I succeeded."

"I had just about got myself up on the keel and I looked down at the ground and there was just no time, so I just got down at the back of the sail again and waited for it to land."

"The kingpost dug into the ground and snapped — I was quite pleased it had stayed in one piece when the glider inverted."

"As I came down I had a bit of time to think about how I might hurt myself... but what's the point in unproductive thinking?"

Trevor was not carrying a chute as he had not adjusted his Bulletman harness for use without the French Connection that had been attached to his other glider.

"The moral," he said "is 'wear a chute'. I don't think there is anything wrong with doing loops, but obviously there is considerable risk and people must be aware of that. You need lots and lots of speed and



Trevor Birkbeck celebrates the winter, pictured by Mark Junak

after that it's just bottle, really.

"I was a bit surprised I broke a leading edge in that I didn't actually feel anything, but the Typhoon is a strong glider and amazingly — when we stripped it down at Solar Wings — the cross-tubes weren't even marked and nor was the sail."

Trevor did speculate that, had he pulled the chute, he'd very probably have landed "in deep water" over the back in Semerwater. A more valuable lesson learned was just how quickly the emergency services can be summoned via a CB call — a course of action which the sympathetic police endorsed.

Needless to remark, the manoeuvre was way outside the normal flight envelope of the glider and its structural failure need give rise to no concern.

## FLIGHT BRIEFS

### Respite for Horcum

HANG gliding at the Hole of Horcum in North Yorkshire looked to have won a stay of execution as Wings! went to press.

Flying at the historic site of the Embassy Nationals has for the last year been under strict terms agreed between the George Cayley club and the North York Moors National Park. But club officials were angry when the first they learned of the park committee's new plans to ban flying was on reading the Yorkshire Post.

Now, after a meeting with park officers, a compromise appears possible to allow flying while still preventing serious erosion which is giving rise to concern.

The main problem is on the site's main southwesterly bowl which is also used extensively by Rick Ware's Northern School of Hang Gliding. The site is less favoured by more experienced pilots who would rather accept the problem of shared airspace with sailplanes at Sutton Bank than hack Horcum's notorious turbulence.

### Frater goes

TED Frater has resigned as the BHGA's Airspace Co-ordinator after council rejected the principle that he be more adequately compensated for his efforts.

Council policy at present is that voluntary officials are refunded only for petrol expenses, telephone calls and other out-of-pocket costs.

Ted continued to do the airspace work for the last eight months after relinquishing his council post at this year's annual meeting.

• See Air Mail, page 11.

## Questionnaire's loose ends

THE BHGA questionnaire which asked for views on the registration of hang gliders was answered by a remarkable 45 clubs and prominent individuals in the limited time available.

But, admitted the association's chairman Roy Hill, few firm conclusions could be drawn because of a slip in the compilation of the form.

Mr. Hill said clubs may have been given the impression that registration was more or less a fait accompli and this was aggravated by the fact the questionnaire asked clubs only if they were **IN FAVOUR OF** a) compulsory registration or b) voluntary registration.

Missing was the question "are you against registration in any shape or form?"

Some clubs did express that option by answering "no" to

both the compulsory and voluntary registration questions. The Dales club refused to answer at all and suggested hang glider registration should be brought in simultaneously with the registration of horses on the public highway.

Of the 45, 33 answered the questions after consultation with other club members; 23 approved of compulsory registration; and 12 of voluntary registration — a total of 35. But 18 rejected compulsory registration and 17 rejected voluntary registration — also making 35.

A majority of respondents were in favour of large registration letters rather than letters of car number plate size. A majority (21) favoured the letters being placed "in a definite position".

## XC finale

FORMER British distance record holder Peter Hargreaves looks set to win the National XC League for the first time.

With winter wave providing the only opportunity for any more distance flights, two times winner Robert Bailey needs to do an "impossible" 55-mile flight to catch him.

The final XC table will again be published in February Wings! and will feature the names of all entrants. As last year, there will be just two weeks to file any late entries — these must be with Dave Harrison by JANUARY 15, so if you go for it over Christmas send your claim in IMMEDIATELY to Dave c/o the Taunton office.

## Army group meeting

The annual meeting of the Army Hang Gliding Group (AHGG) was due to be held at the Old War Office, Whitehall, London on December 10.

Reports were due to be given by the chairman, Brig.C.Hince, president Maj.Gen.M.Matthews and secretary Capt.D.J.Taggart.



# Miles Handley:

STAN ABBOTT visits Tredegar to meet the man with the heavy burden of finding a winning design for Europe's biggest manufacturer.



The Alien — 'at the limits'

For ten years, he and his wife Jill ran a company working exclusively for United Biscuits automating their production line. And yet Miles Handley has not one formal qualification to his name.

*'I think best in bed'*

"My quality is lateral thought and you have to apply lateral thought... which I do best lying in bed at night.

"It's hard work — you lie in bed for two hours analysing everything, going through the whole thing.

"When you are lying down with no interruptions you can hold more information in your head at any one time.

"It's like building a house of cards — you can't do it if someone opens the door and lets the draught in. You have got to open your mind to how ideas could be applied and then you can make use of ideas that you would not normally."

The Handley approach to design was first applied to hang gliders in the mid-70's, with the tailed Gulp.

His flying career had begun some time earlier when he bought plans from Len Gabriels and, leaping off Mill Hill, became one of the first fliers in the South.

"Then Jill and I formed the Southern Hang Gliding Club, which made it the first in the country."

The Gulp, of course, threw the accepted Rogallo configuration out of the window and was essentially a high aspect wing with a fixed tailplane for pitch stability.

"I always like to look on alternative methods," said Handley. "Because a system is working, even working well, does not mean to say it couldn't work better.

"I learned a lot from the Gulp — like how gliders can suddenly become divergent. The performance was actually way above anything of the time, as far as Rogallos went, but the handling was way below. The hotter pilots who could manage the Gulp tended to buy them until the SST came along."

One "hotter" pilot who eagerly followed the Handley developments was Johnny Carr and he was ready to sacrifice the handling for the performance advantages of the Gryphon I which again abandoned convention, trading the drag-inducing crosstube for a bowsprit and high aspect ratio wing.

"It was only the fact that Johnny didn't learn how to fly it that made him come second in the World Championships. He was overshooting — in fact you could put a pair of boots down and land in them."

The Gryphon I was "heavy" in handling but the fitting of tip-draggers — actioned by a vertical extension of the hang point — made it "just about acceptable to Johnny and one or two others".

ASK a student of hang gliding who has had the greatest influence on glider design over the years and, chances are, they might tell you "Bill Moyes" or maybe Roy Haggard whose Dragonfly was responsible for the quantum leap from Rogallo wing and who, in the Comet, pioneered the enclosed floating crosstube.

A few might suggest others, like Bob Trampeneau of Seedwings, but I doubt whether many would think automatically of our own Miles Handley.

John levers, boss of Hiway hang gliders reckons to change all that.

True, a pedant might suggest Handley has never really influenced hang glider design, so much as stood accepted design concepts on their head.

Indeed, if you presented him with a bottle of wine and asked him to invent a tool for uncorking it, the chances of him simply rediscovering the corkscrew would be slim — such is his ability to distance himself from a problem to achieve an analytical solution to it. Not so much a designer of hang gliders, he is a rarer bird, a sort of design "troubleshooter" by trade.

He fits the part well: tall, bearded, a little dishevelled, he brings to mind a sort of Magnus Pike figure, but without the arm-waving eccentricity. In fact his manner is quite the opposite, being generally soft-spoken and unassuming.

Born 52 years ago in Surrey, his design career began as a teenager servicing aircraft at Croydon.

Among the aircraft flying from Croydon was Douglas Bader's Gemini.

*'Officialdom made me fed-up'*

Bader was forever complaining about the slow action on the brakes — a shortcoming that was smartly remedied by Handley and his mates who replaced the hydraulic spaghetti with a simple knuckle joint system.

"It worked magnificently," recalled Handley, "but the Air Registration Board made us take it off again. That jacked me off with officialdom a bit."

It was that disenchantment with the manoeuvrings among the top brass of any major concern that eventually led Handley to call it a day, take a hefty pay cut and return to the hang gliding this Spring after five years out of it.

His design career before that has seen him working on just about everything from microscopes to time lapse photography, from tanks to the TSR2, from sports cars to machines for filling jam tarts.

He designed the Deva sports car in the 50s and claims to have built the first fully monocoque sports car body.

"I was a bit spoilt by Johnny because he tended to put performance before handling — probably only Johnny could do that.

"Really I was building purely for myself but I eventually succumbed to people jumping around with pound notes.

"The Gryphon II was a development from the Gryphon I with a wider nose angle, higher aspect ratio, basically the same sort of construction, but smaller plan.

"The increased aspect ratio meant an increased torque arm so it handled better — it was quite reasonable under weightshift — and it had good performance for that time.

*'Wasp spoilt the Gryphon'*

"Primarily it was something I was building for myself and Johnny, then Wasp took it over and screwed it up, in my opinion. They just couldn't make it. The only one they made that was any good was the copy of mine that Keith Reynolds flew. With Wasp's methods there was no way they could control the sails accurately enough. There was no attempt at cutting panels to a pattern and Robin Haynes stuck his oar in as well so none of the Wasp gliders came anywhere near the original two machines for either min sink or glide angle."

Handley's harsh words perhaps do less than justice to the fine reputation the Gryphon subsequently enjoyed as a fast machine, way ahead of its time.

"Gryphons" were certainly sold until very recently on the German market where the modern Fafnir is really just a refinement of the Gryphon.

In Britain, however, Wasp gliders dissolved amid scandal when the cunning way in which the Haynes brothers had been feathering their nest via the National Hang Gliding Association was revealed. The BHGA was born out of that furore around the same time that Miles Handley piled in downwind on Beachy Head and broke his shoulder blade, prompting him to quit flying. "I was the idiot who always tested the sky for everyone else. I did fly afterwards but I couldn't get round to enjoying it."

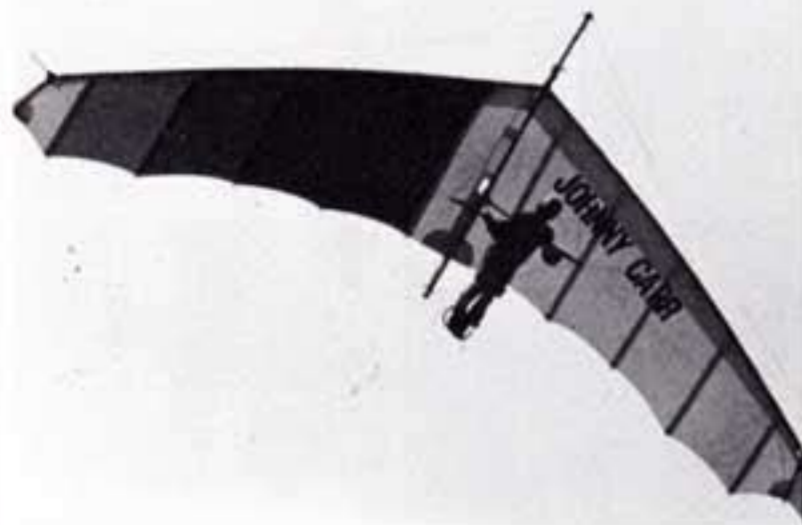
After five years Handley was becoming increasingly disenchanted with the business world: and Hiway too were having their problems.



Miles Handley on a Gulp at Steyning Bowl, 1975. Picture by Pete Jones

Peter Jones pic

# Hiway's 'troubleshooter'



Bettina Gray photo



Steve Thompson pic

Johnny Carr, above, on his Gryphon II and, below, the Fafnir — Handley influence at work

Hiway, founded way back in 1970 when levers and co. were students at Brighton, had made a positive decision to grow from "cottage industry" to engineering company when they took advantage of government grants and moved lock, stock and barrel to the Welsh Valleys.

The company was soon split by the departure of Steve Hunt to form his own microlight company, leaving the Hiway development programme in disarray.

"Steve wanted to go very much to power and the rest of the company, me in particular, saw that we should still maintain a very substantial stake in the hang gliding market where we already had our own distribution network where there was the capacity for producing and selling a substantial number of machines," said levers.

Bob England came in as designer to be succeeded by Bill Payne.

"Bob had the right ideas but couldn't apply them. Bill had application but was pretty short of ideas. If the two had worked together as a team they would probably have done pretty well."

Hunt's Vulcan was a fiasco, largely because of an unjustifiably poor public image. It was a good machine geared for glide at speed at a time when competitions were suddenly all about sink rate... and so that's what the market wanted.

The evergreen Super Scorpion saw the company through, with the Demon, and a new supership, the Alien seemed all set to take the market by storm earlier this year. Despite glowing reports and a substantial publicity build-up, the Alien never saw production. The machine seemed to perform brilliantly, but the stresses on the materials, particularly the fibre glass tips, were such that it could not be kept in tune. To counter the problems, said levers, would have meant increasing the weight to an unacceptable level.

Hiway needed something new — "tomorrow". The Handleys had been contemplating retirement to Wales. It merely meant advancing plans a decade or so!

"Miles came in half way through the Alien and said 'you are banging your head up against a brick wall trying to get more out of the materials than they are capable of,'" said levers.

Handley added: "We did too much work basically discovering that the stresses involved

in taking the conventional type of glider any further were too great. You could have worked your butt off for a year and got another one per cent.

"When I first came into hang gliding, the graph of performance was still climbing quite nicely."

But, after five years, Handley could see little significant performance difference between the top machines.

"My conclusion was that we were squeezing the last few ounces and the only way we were going to get a reasonable jump in performance was to look and ask 'are we doing the right thing?'

"One of the main structural snags with the Alien was getting sufficient tension to keep your billow and wash-out within reasonable bounds. Once you got that, the thing was virtually uncontrollable and the materials were out of their limits.

"We were at the limits of wing warp initiated by weightshift control so we started looking at aerodynamic controls initiated by weightshift."



John Ievers, left, and Keith Cockcroft, Handley's "eyes and ears"

Basically we have now got a rigid wing but it's built within the same sort of parameters and techniques as a conventional hang glider. It breaks down and controls like a conventional hang glider.

"We already know that weightshift is not what controls a hang glider — weightshift just induces changes in the structure and aerodynamics, that is wingwarping. We are having to balance the flexibility of the glider against the performance and we get nearer and nearer to the limit.

"When I left the sport, the Gryphon was pretty near the limit but I don't think the Gryphon was the hassle to control that the fifth generation machine is. There's been a



Jim Padroza on a Gryphon I, pictured by Paul Skeets

25 per cent improvement in performance in the five years since I left."

So Handley and levers see the Alien basically as having been valuable in teaching the lesson, albeit a long and expensive one, that the time was ripe to look for a new design concept to advance hang gliding by a leap rather than a "microhop."

In Hiway's new machine, dubbed the "Incognito" (the choice of name has been left open to help boost the launch impact) they believe that leap has been achieved in a design which both claim owes more to the Gryphon than its more obvious cousins.

## 'I tend to throw it on to paper'

Handley reckons it took some four months of catching up before he was really au fait with the current flying scene and of course his industrial background means he operates in perhaps a more theoretical manner than other designers who tend still to draw from the "suck-it-and-see" tradition.

"Standing at the drawing board is the donkey work — I think I am doing a lot more drawing board work than other designers. Because of my previous experience I tend to throw everything on to paper to work out the stresses etc.

"If you are designing equipment worth half a million quid then you have got to get your sums right. I have always found maths easy so stressing is straight forward once you understand the basics of vector diagrams etc.

"From there you go on to the flight envelope and the aerodynamics and the drag situation, loading etc.

"Our glider is an aerodynamic, rigid machine so it follows the rules of aerodynamics. A conventional hang glider is a flexible membrane so it's difficult to work out what it's going to do because you don't know how it's going to deflect and you can't really specify what your loading gradient is going to be over the wing. With a rigid wing you have got a finite formula."

Once the basic concept was established, Handley built a model which performed unexpectedly well aboard a "vehicle test bed" and a full size prototype followed.

Various control combinations were tried and rejected with levers initially acting as test pilot before Keith Cockcroft joined the team.

Said Handley: "I expected the fact that I wasn't flying now to be quite a handicap but it has not turned out that way. The feedback from Keith has been so good that I virtually feel I am flying it myself."

So the Handleys are happily installed, having sold their house in the London stockbroker belt to buy a converted terrace boasting a commanding view from half way up the Bloreng.

Ievers is happy too, as certain as anyone ever can be in this business that he's got the right combination working at Tredegar to ensure that Hiway has a product worthy of its status as Europe's biggest manufacturer.

"We have got a good team. Keith is a consultant at the moment but I feel that Keith can play a major part in the future of the company. He will really come into his own when the product is launched. I see his role far less as a test pilot and far more in promotion and customer and product feedback."

Meanwhile, Handley's inventive mind continues its fertile wanderings... he's now working on a sailing boat to beat the world speed record!...



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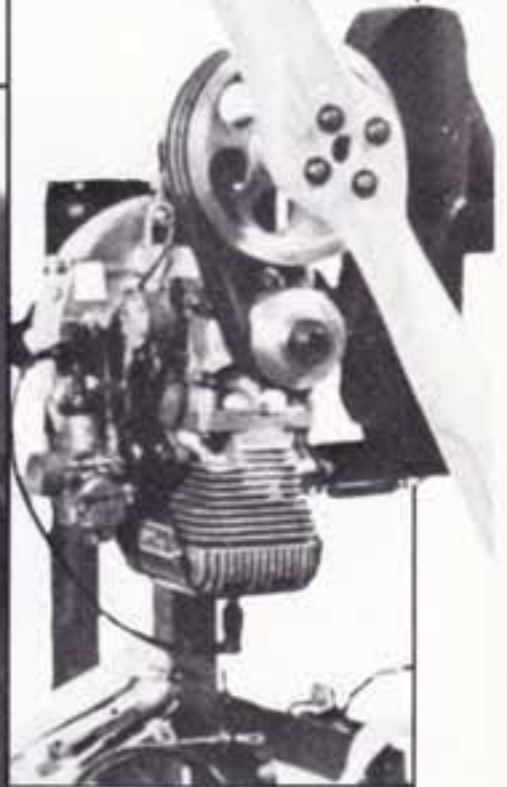
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# Hyphen: Ladybird

HIWAY have teamed up with an old friend from the days when the Welsh manufacturer was based at Brighton to produce a new soaring microlight.

The Ladybird, pictured right by Steve Thompson, was previously nick-named the Hyphen. It is designed by Mike Campbell-Jones who worked for Hiway and the ill-fated Vulturelite in the early days before going to Delta Fulmar in Belgium.

"Then I got my own ideas and came back here," said Mike who is now based at Pandy.

Under an agreement with Hiway, the Tredegar firm will

manufacture the three-axis aircraft and Campbell-Jones Flying Machines Ltd. will be responsible for marketing.

Control is effected by wing-warping, which, says the designer, presents "very little adverse yaw".

The interesting thing about the Ladybird is its large wing-span which, says Campbell-Jones, makes for a glide of about 13-1, or rather better than average hang glider.

The 125cc machine has been soared at Pandy and should soon be selling at around £3,000.



# Engine breakthrough?

A LESSON in how to get more out of a 125cc microlight engine than traditional motors of twice the capacity seems to be being taught by Hiway.

The Welsh firm is importing a purpose-designed and built trike engine from Italy — the water-cooled Hiro, which is basically a 34hp motor cycle endurance engine detuned to 24hp. The trade-off, says Hiway's John levers, is "superb reliability".

That reliability, it is claimed, is also increased by the water cooling, countering one of the big problems affecting the life of air-cooled microlight power units. Traditionally, engines are run at high revs during take-off, leading to overheating. That overheating is then difficult to overcome when the airflow is subsequently reduced

by throttling back for typical straight and level flight.

The engine also incorporates an internal gearbox eliminating the need for an external belt reduction drive.

"The whole thing started with Alex Leusch, our distributor in Italy," explained levers. "He took one of the early trikes back and flew it quite a lot but he wanted something more powerful and better.

"He said 'Italian industry has got to be able to make the definitive trike engine' so he invested a lot of his own money into work with Hiro to develop this engine."

Hiway is now promoting the engine in preference to the air-cooled 250cc Robin which actually weighs the same. Trikes bound for the Italian market are assembled with the engine there.

## Skydart details

MORE details of the new Airwave/Mainair Skydart, announced in October Wings!, are now available.

It is based on the Tri-flyer airframe with a few modifications: has an aerodynamic fabric and fibreglass cockpit fitted with ASI and altimeter as standard.

The fully-folding cockpit allows instant and easy glider attachment, and a new type of glider connector will make flying and control pleasant and light, promises the company.

The single front wheel assembly is fitted with a ball raise head assembly, and a front brake is standard. The Skydart is powered by a 330cc Robin engine.

Airwave Gliders, who are manufacturing the glider and attachment assembly, have developed the wing specifically for the project, and the Skydart will be in production soon.

# Steve Hunt back...

FORMER BMAA president Steve Hunt — ousted from the committee at last year's stormy AGM — won his committee place back at this year's meeting, held last month in Wolverhampton (writes Harry Unsworth).

Joining him is Gerry Breen, another major figure in the microlight world.

The meeting was attended by 300 members who wanted to support their organisation in its fight against the red tape and mounting restrictions imposed by the CAA during the past six months.

The 'Year of the Licence' was mooted by BMAA Chairman Graham Andrews who also stated that £50,000 had been taken out of the sport by CAA legislative measures.

On an even sadder note the 'Year of the Scorpion' (microlight 3 axis) had not helped the public (or official) image of microlight aircraft or their pilots. Indeed it is rumoured that one more fatal accident before the start of next season could ground the total membership!

It was agreed that there were licensing problems still to be overcome to help the sport to get moving; and a proposal will be put to the CAA to 'open up' the certificate 'A' once again.

This entitles the holder to operate a microlight within 8km. of any take off point outside controlled airspace and would obviously benefit hang glider pilots with trike units who simply wish to do some local flying when conditions are unsuitable for free flying.

It was also suggested that weight shift and 3-axis control be split but that the BMAA would still be responsible overall for microlight flying regardless of method of flying control.

To avoid the doubling of dates at fly-ins in 1983 an events officer will be co-opted from the committee to organise flying activities.

These will include the annual London/Paris air race, Isle of Wight and Long Marston competitions and a possible Woburn fly-in — plus a team event to Marrakesh (needless to say owing to the necessity for basic navigation, Mark Thatcher is unlikely to be in the team line up!)

The Training Officer, Ian Stokes, reported that the BMAA now has more than 100 appointed instructors, and examiners are to be elected to monitor and maintain a professional level of instruction throughout the UK.

A basic manual should be included with each sale giving exact procedures on setting up, daily inspections, pre-flight checks etc. and this should be mandatory and enforced by law if necessary. More local safety officers at club level should also be appointed.

Graham Andrews was re-elected chairman in a close fight with Steve Hunt — Graham's vote being 110 to Steve Hunt's 99. John Wincott was re-elected treasurer and other council members are Bruce Giddings, Brian Cosgrove, Julian Dodswell and Ian Stokes.



Bob Calvert received his award for setting the official world microlight altitude record. He is pictured here with Rick Wilson who collates all records for BMAA and BHGA.

# Watch out!

Dear Stan —

The following is a sequel to the Mere picture spread by Steve Thompson.

Steel watch straps can be a flying hazard, but can get one noticed, as did my own at the Mere 82 weekend. On receiving the October Wings! I was surprised to see two pictures in the centre spread depicting my exploits of lying and flying — lying under the nose of my medium Typhoon and flying in the Bog Rog in an effort to dethrone Bunny Smith.

Of the many nil wind take-offs I have performed, this was my first to cause embarrassment and of course there was a reason, which I feel obliged to warn other pilots of.

After about two strides my steel watch strap sprang open, to slide down and trap between the upright and my hand. It being a very warm day, I was not wearing gloves which would have prevented the strap from getting into a position for concern. To relieve the pain I then transferred my hand from upright to bottom bar — with disastrous results, as the picture shows.

One must, in a nil-wind take-off, keep firmly hold of the uprights in order to maintain the correct angle of attack while running like a bat out of hell to attain flying speed, transferring hands to control bar when airborne.

Usually a nose-in attempting a nil-wind take-off proves rather expensive, as uprights are often bent or even broken. At Mere I was lucky in passing clean through the A-frame without touching the sides.

After removing my watch, carrying the glider back and checking for any damage (thankfully none) I took off about five minutes after the mishap with no problem whatever.

TONY TURNER  
Uckfield,  
E. Sussex.

## Blood, sweat and tears!

Dear Stan —

In reply to Dave Syrret's letter about BHGA and, more to the point, council. I think you have answered the more statistical points very well but, as a new co-optee I feel he needs refreshing or enlightening on the works carried out by council.

I was once like Dave, ignorant of council, critical, cynical perhaps? But then I volunteered to help, and my chosen field was training (as a former instructor and a club coach). Does he know just how much work is done? I will mention only training because that is my first-hand knowledge of council. Since I was co-opted, I have taken four days off work at my own expense (I am self-employed.) Bob Harrison and I have sat up till 2.30am working on exams and requirements for members and schools, on more than one occasion!

He usually has to work week-

ends and all council members attend meetings once every six weeks. I arrive home at gone midnight and others probably later. We have visited schools, Sports Council seminars, club agms etc. all in order to gain information to aid our members. I usually have to work on BHGA business three or four evenings a week after my own work.

It is a thankless task as whatever you do someone will dislike it. If Dave Syrret you feel council does nothing please feel free to get off your butt; join us for a free ride!

I know you'll soon change your tune. All council works very hard to get things done and I hope you may now appreciate it a bit more and answer such questions when next asked.

DAVE CLAYTON  
Chairman, BHGA training  
committe, Sutton, Surrey.

## Putting the record straight

Dear Stan —

I have just seen November Wings! and write to correct an erroneous report on page 16 concerning the death of microlight pilot Alan Fountain, which includes a reference to myself.

I did not in any way help Mr. Fountain to design and build his microlight, and the only connection between Huntair and the craft was that the engine unit and some other materials used in its construction were purchased from my company by Mr. Fountain's colleague, Mr. Johnstone.

The wings of the craft had already been built by the time Mr. Johnstone first approached us for materials, and in fact I have never met Mr. Fountain nor seen the craft other than in photographs taken after it was completed. I understand that Mr. Fountain and Mr. Johnstone had been active aeromodellers and had entered the microlight world from that direction. I did not have any input into their design, nor was I

asked to make any by them.

I understand that they and a friend who was an active pilot had been flying the machine for some months very successfully — although I have no information on the number of hours achieved — and that they then decided to modify the aerodynamic controls from a spoiler system to an aileron system. I believe that the fatal accident occurred on an initial flight with the new system, and that the generally accepted reason was pilot inexperience/error, although the inquest report will doubtless become available in due course.

Your report is clearly open to the interpretation that I had an input into the design and construction of the craft. In fact my involvement with this tragic case was no more than as a commercial supplier of components which have not been called into question.

STEVE HUNT,  
Director, Huntair Ltd.,  
Sussex.

## Why this delay?

Dear Stan —

Re: Tow Meeting Inquiry. I am writing in connection with the report which I was asked to prepare into the tow meeting accident on June 6. My report took three months to prepare — a very long delay on my part.

It was, however, submitted to BHGA's Chairman on September 8.

Since then there have been two council meetings and the report has not, so far as I am aware, even been

discussed. I have had no contact from council even to say that the report is rubbish!

I have not even had an acknowledgement of its receipt.

While I accept responsibility for the delay in writing the report, I can not accept the delay in its being read. I can only suggest to anyone with an interest in towing who is still obeying BHGA's instruction to suspend these activities to contact council members as soon as possible to press for a decision on this report.

GERRY STAPLETON  
Eaglescliffe,  
Cleveland.

*\* Gerry is quite right — there has been a delay in considering the report. However, within two days of receipt of his report, three copies were circulated at council's meeting, with instructions for one of them to be duplicated and sent to interested parties. That copy went missing and this resulted in a month's delay in action being taken.*

*The situation is now rectified, all council members have been circulated and fully considered recommendations will be made to council by Jim Taggart and Bob Harrison as to what — in the light of Gerry's report — BHGA policy should be.*

Roy Hill

## Licence to snap?

Dear Stan —

I understand that an expensive licence is required for aerial photography when carried out on a commercial basis with a light aircraft. If this is the case, does a trike pilot require the same licence if he wishes to sell photographs taken from the air?

I would also like to hear any other comments readers of Wings! may have on the whole subject of aerial photography i.e. what type of cameras, neg. size, lenses etc.

SIMON WROE,  
Yelverton,  
Devon.

*\* The CAA confirms that to carry out ANY commercial work from a powered aircraft, a commercial pilot's licence is required. This applies even to passengers, so if you take a photographer with you on a two-up trike and he/she subsequently sells the pictures, YOU are in breach of the "pleasure or training only" rule.*

*There is as yet no special "commercial" microlight pilot's licence as the general commercial licensing requirements are tied in with the airworthiness question. In the case of microlights this is, of course, currently under discussion — Ed.*

# What should be done to stop the rot?

Dear Stan —

Motivated by your editorial in October Wings! here are some more ideas that could be food for thought.

It seems to me that hang gliding is sliding into crisis in this country. Membership is undergoing a decline, sites are threatened, accidents occur with frightening regularity and, perhaps more important, incidents that could result in accident go largely unreported.

Training methods leave a lot to be desired — there is a lack of standardisation of technique and help for post-P1s trying to advance their skills. Other air users are poorly informed about our craft and their capabilities. The activities of BHGA council and its committees are a mystery to most members and shortcomings are often highlighted while successes go unnoticed.

Why has all this happened? It's hard to say but I believe our sport has evolved away from the activities of a few well known individuals (some of whom are still making the news winning comps. and breaking records) towards a mass of unknown club members. It is these club members that have gradually been alienated from the core of BHGA. The BHGA has tackled some heavyweight problems and generally done an excellent job but has perhaps neglected the club system. I'm sure that many of the problems that face us could be solved by increased communication at club level.

□ □ □

Let's have a look at our biggest problem — we simply have far too many accidents which get bad publicity and so keep membership low. Yet we all seem to accept accidents as a way of life! The fact is that ALL accidents are preventable. The post-P1 flier is most at risk and should get more help from within the club network and from schools.

about to make a mistake or advise him on a site's idiosyncrasies.

As club secretary I have no real way of checking the competence of a visiting flier and as an Instructor I know how inexperienced a P1 actually is. Just because someone turns up with a Typhoon "S" or Magic it doesn't necessarily follow

that they are competent pilots. The plain fact of the matter is that people are being allowed to fly unhelped and unwatched, who shouldn't really be allowed to for their own safety. On their safety depends the future of our sport so we have to be responsible about this.

□ □ □

I feel the following ideas deserve discussion as possible remedies:-

1) Log books and their use should be promoted. Log books should be given to all new BHGA members, paid for through the initial subscription surcharge. At regular intervals these log books should be signed by a club official, instructor or observer, to certify them as being correct. Before a visiting flier is allowed on a club's sites his log book should be inspected. A photocopy of relevant pages sent with countersigned signatures would suffice in most cases. As club secretary I would be looking for evidence of the ability to fly safely on sites similar to those in our area, for evidence of the number of flights and of airtime.

2) Seminars should be run for club officials to inform them of problems so that they can be tackled at club level. A small get-together in the back room of a pub for one day a year would do to begin with. There should be more inter-club communication through Wings! and otherwise. Club activities and competitions should be encouraged and given more space in Wings!, along with club diaries.

3) Wings! should publish a series of information sheets (they need only be photocopies) which should include expert information on topics such as:-

- Air law and hang gliding
- Top landing technique
- Thermalling technique
- Safety matters, accident statistics, how to stay out of trouble.
- Glider design history
- Airworthiness criteria and test results.
- Take-off techniques.
- Use of gadgets:- vario altimeter, French Connection etc.

These could be made available through

advertises in Wings! and through clubs. Information published in Wings! is very good, but has a "life". These sheets could be updated each year to incorporate new knowledge. They might even make money!

4) The BHGA ought to build up a library of videos and films on hang gliding and related aviation activities such as sky-diving, man-powered aircraft, parachuting etc. This library ought to be published and tapes etc. made available to clubs and interested parties at reasonable rates.

5) Seminars should be held with other air users. Club members should have the opportunity to meet people from AOPA, BMAA, PFA, CAA, BGA, RAF, BPA etc. Perhaps the Royal Aero Club could assist in starting this off. More communication through relevant journals would be a good thing. How many other air users realise that our machines can climb to over 10,000 feet and fly more than 100 miles without power? RAF pilots I've talked to certainly don't.

6) Hang gliding must develop a better corporate image. Schools, manufacturers, agents and clubs should involve themselves with better public relations. Who knows, if enough people co-operate, TV ads on Channel 4 might be possible; certainly ads on commercial radio would be possible. Let's tell people what hang gliding is all about NOW — we're still left with the remnants of the "Big Bang" when hang gliding started in this country. Hang gliders are still depicted as rag wings plummeting from hills, piloted by members of the Dangerous Sports Club!

I shall also have some hard thinking to do with regards BMAA. We're finding that people who come to our school to learn about microlights end up with an interest in hang gliding and EXPRESSING SURPRISE at how safe it really is compared with their concepts previously!

TIM WILLIAMS,  
Secretary Mid-Wales HGC.,  
Aberystwyth.

• Some of Tim's points are, coincidentally, already being acted on by BHGA officers and officials — Ed.

• See leader comment, page 3



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

## Bottle bank!

Dear Stan —

To those intermediate pilots, like myself, continually in need of "bottle", I strongly recommend Mike McMillan's soaring course on the Isle of Wight. Apart from the "no fly — no pay" understanding, he

checks you out on a 60ft, all wind direction training slope. A few of these flights and you can feel your bottle filling, after that the sky's (wind's) the limit.

JACK DONALDSON,  
Croydon.

## Frater: why I quit, and the issues

Dear Stan —

Your forthright leader in October's Wings! touched a sore point. As you may know, I have asked council urgently to consider properly funding essential BHGA work. This has been refused and I have therefore resigned my Air Space job.

Our club had a meeting last month and I put forward a proposal as follows. Does the membership want essential work done on time, in a professional manner, if YES, are they prepared to pay for this to be done. I also proposed that one extra full time person should be able to do all that needs to be done, viz the test rig, air space, and sites. This would put the cost of the annual subscription up by £2.50 per year.

I was surprised at the result. Of the 17 fully paid-up club members

present, 16 voted YES, with no abstentions except me (proposer). If this is a guide as to what the members want, then Council is out of touch with the members, and should put this important question to the whole of the membership as soon as possible.

One member put is as follows. All he wants to do is to go flying, without hassle and in the secure knowledge that all the ground work has been properly done, technically, legally and locally. For this he is willing to pay. I certainly am and I would be interested to know what your club will say to this proposal, and whether my club is biased because I am in it.

TED FRATER,  
Corfe Caste,  
Dorset.

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COLOURS:-

Mid Navy with matching zips and trim. Royal Blue with navy zips and trim.

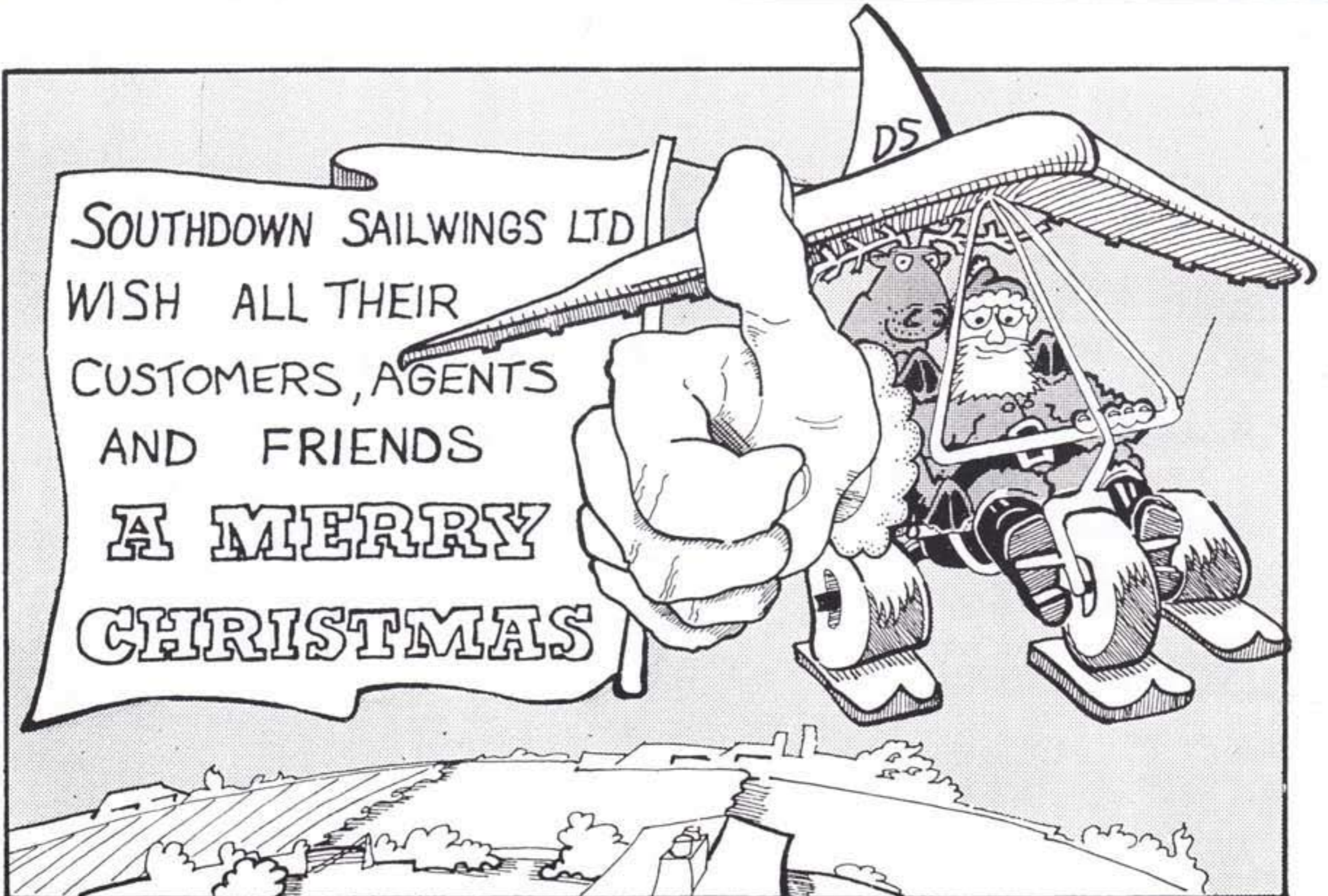


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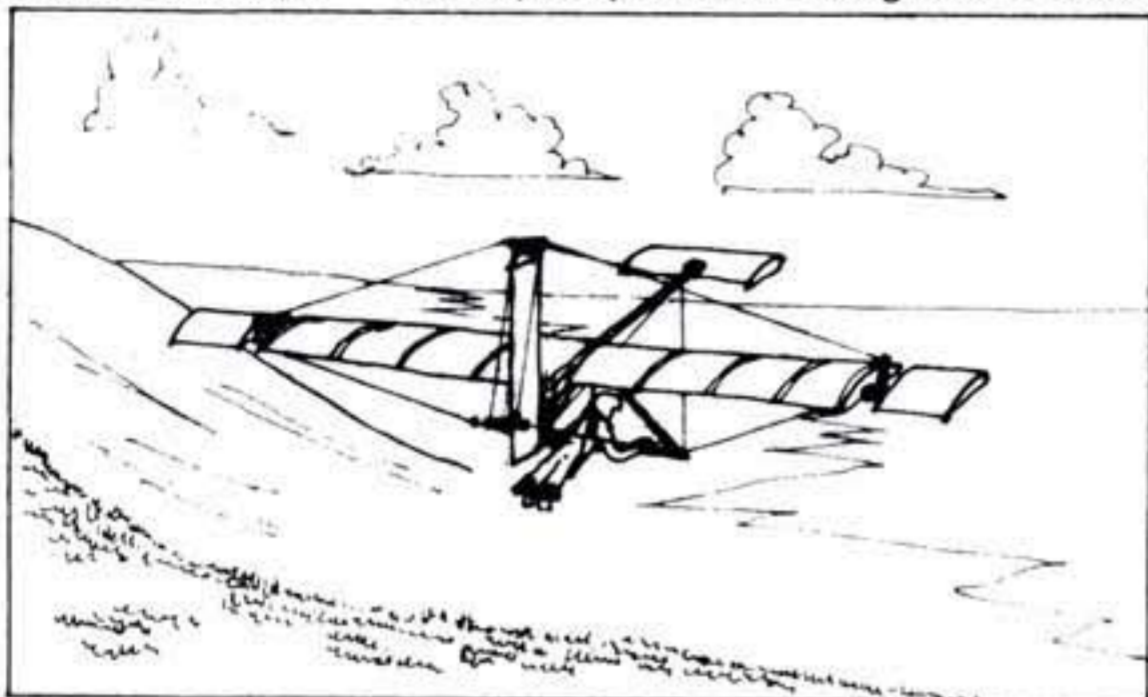
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Quick grip sole - Removeable and washable Thermal lining - Light and Comfortable - Full Range of Sizes up to 11 1/2 - Colour OLIVE



# Rigid wing canard

As Hiway are poised to launch their spoiler-controlled rigid wing, this design, by ROBERT HUEY, of Belfast, revives the canard concept and uses weightshift-operated "roll amplifiers" to turn. The problem of adverse yaw springs immediately to mind, but the design is not published as a definitive concept — merely to provoke thought and discussion.



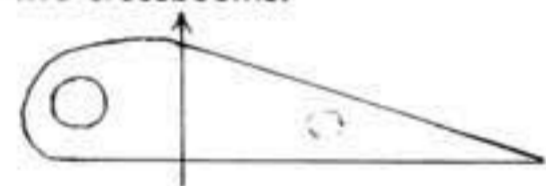
THIS model was designed with the idea of providing a theoretical base from which a hang glider prototype could be built.

It is hoped that this prototype would meet demands for a high speed, high glide ratio, low sink rate machine, capable of advancing cross-country flight.

This prototype benefits from the advantages of a double surface wing and a 180° nose angle but, is still portable and easy-to-assemble. This is made possible by

1. A different structural principle.
2. A new approach to control surfaces.

The structural principle (patent pending) comprises a main wing (shown at 180° nose angle although this could vary if required). The two crossbooms are enclosed in the wing in such a way that the centre of lift lies between the two crossbooms.



The double-surface membrane in the main wing is obtained by holding the wing fabric to the required section by ribs of aluminium sheet and structural foam, or a similar lightweight alternative. These ribs can be slid along the crossbooms to allow the main wing to fold down.

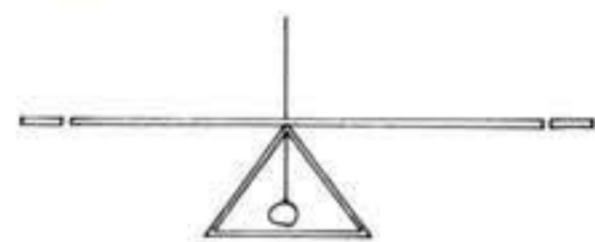
The kingpost is set to the rear of the keel. The resulting couple between vertical forces is resisted by strengthening the keel along that section.

Pitch damping and dive recovery is achieved using a canard set in front of the centre of gravity.

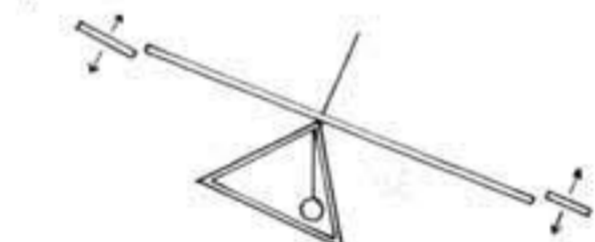
Adverse yaw is countered by a fixed rudder using the kingpost for structural support. This is set to the rear of the centre of gravity.

Roll control is achieved using a new principle, patent pending. The two outermost wing sections are attached to the main structure at a rotational bearing on the front crossboom, and by either a shaft or wire assembly, operated through a cogwheel or similar device, at the rear of the wing section.

The roll-amplifier remains in the horizontal position providing the pilot is in the central position at the A-frame.



The downward force equals the upward force at each wing tip. However, if the pilot moves to the left or right the balance is upset.

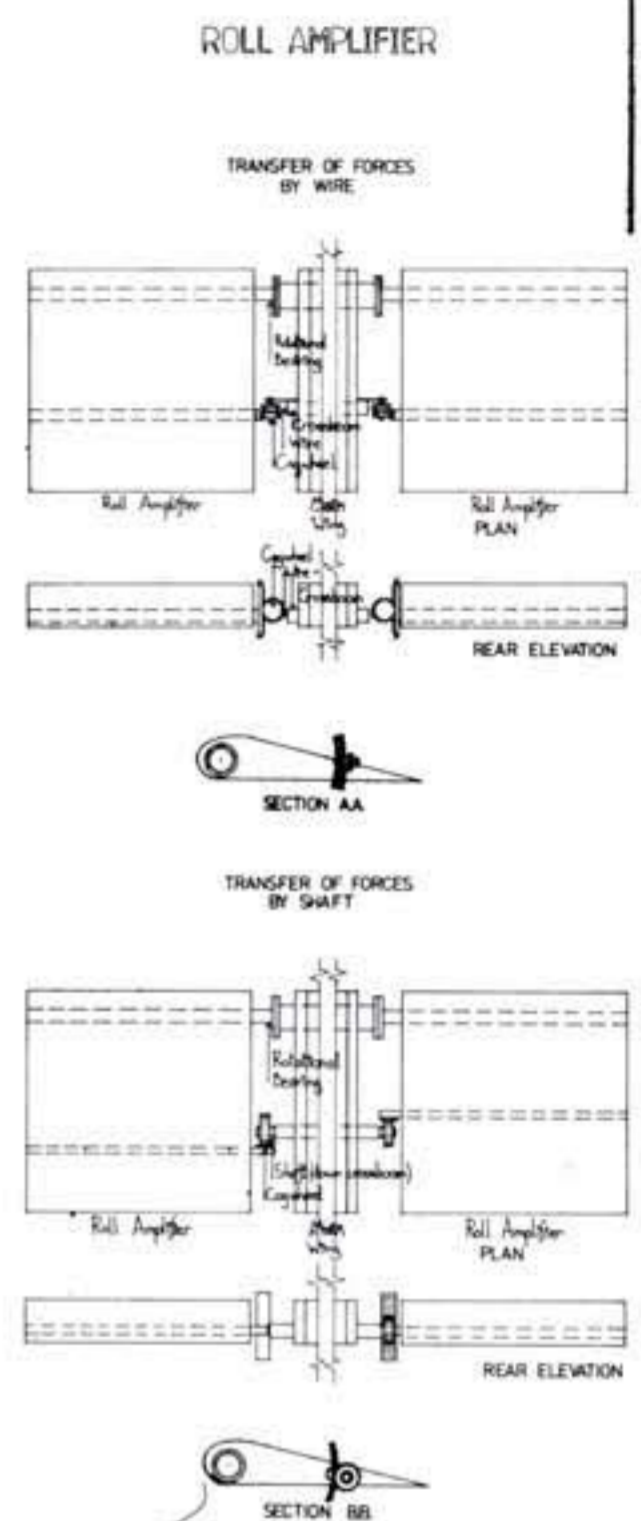
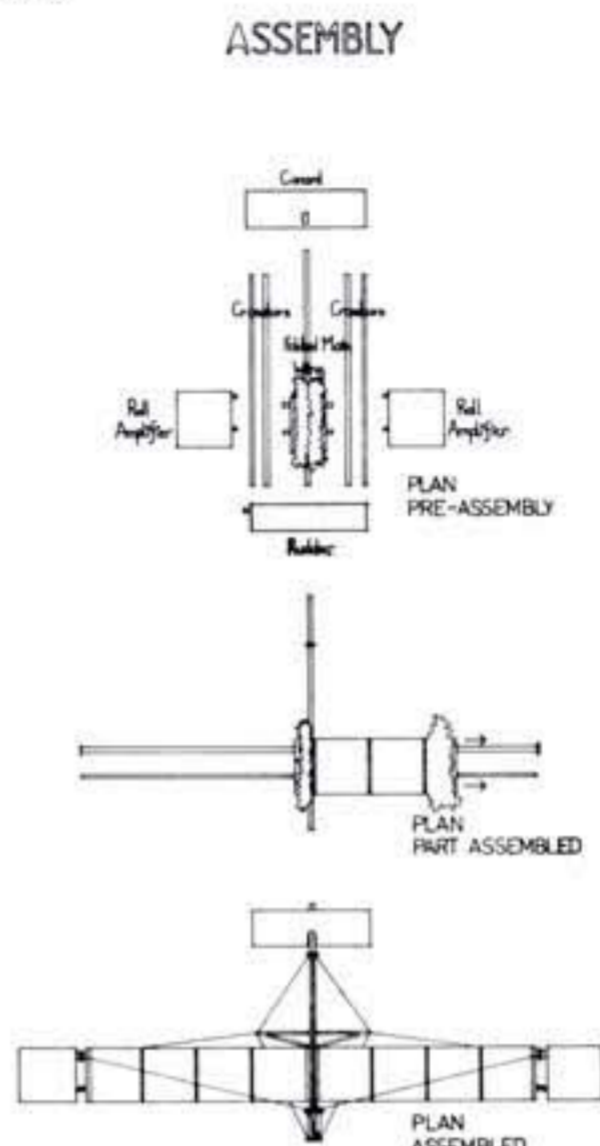


The increased pressure under the right wing and the reduced pressure under the left wing encourage the left roll amplifier to drop at the trailing edge, increasing its angle of attack, and the right wing roll amplifier to rise at the trailing edge, reducing its angle of attack.

The forces encouraging one roll amplifier to lift and the other to drop are transferred from one roll amplifier to the other using either a wire or shaft transfer method. (The drawing showing the shaft method can be altered to include a differential gearing in the mid-wing section. This would allow the trailing edge structural section (A) to be the same distance from the leading edge structural section (B) in each roll amplifier.

These transfer methods encourage the wing to roll by increasing the angle of attack on one wing and reducing it on the other. The forces that operate are the same as those that act on a single membrane wing, and act to amplify the roll response.

It is suggested the hang glider be made from the industry's "traditional" materials, except that the four control surfaces, canard, rudder, and two roll amplifiers, could perhaps be made from a structural foam or other similar material.



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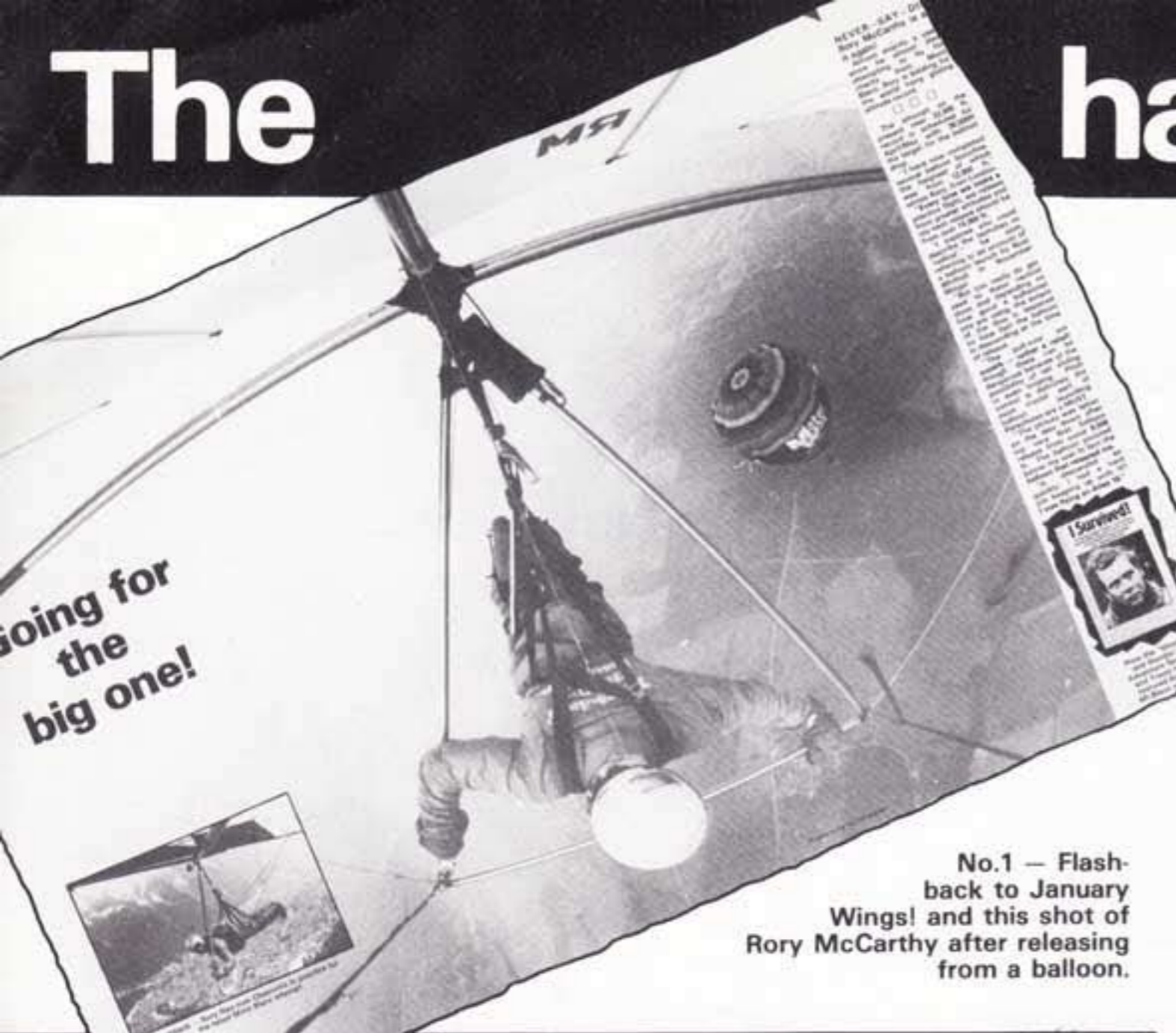


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# The

# hang gliding

going for the big one!



No.1 — Flash-back to January Wings! and this shot of Rory McCarthy after releasing from a balloon.

The search is on for the best Wings! photo of 1982, with £20-worth of wines and spirits for New Year at stake.

That's the prize on offer to the winning photographer thanks to our sponsors, Mainair Sports, of Rochdale.

In addition, the winner will receive a specially-made certificate incorporating the winning work which may be used for publicity purposes next year.

But, to find that winner, we need YOUR help. Published here is a selection by the editor of some of this year's striking shots. You can select your favourites using the form provided (or a copy of it) and sending it to: Wings! Photo of the Year, 72, Hartley Ave, Leeds LS6 2LP to arrive by December 22.

Your number one choice scores three "points"; no.2, two points; no.3, one point. You can also select any other picture not shown

on these pages, stating the issue of Wings! and the page on which it appeared. The only stipulation is that the picture should have appeared on editorial, not advertising, pages and should have a "British connection".

To encourage votes, a £5 prize will go to the sender of the best answer to the question "what makes a 'good' hang gliding photograph?" — so use your skill (in not more than 30 words, please).



No.2. — Rounding a pylon, left, at Mere by Steve Thompson (Oct Wings!)

No.6. (right) — Graham Slater and Mike McMillan pictured flying out over the Needles in this atmospheric shot by Michael Ward in April Wings!

No.4. (below) — Tony Hughes flattens his groundcrew. July Wings!, Barry Wilkinson.



No.3. (left) — Champions! as pictured on the winners' rostrum at Millau by Stan Abbott (September Wings!)



# Picture of the Year award



No.9. (above) — this aerial panorama of Cornizolla, Italy was taken by Mark Junak and formed the colour cover of August Wings!

No.5 (above left) — Ralph Bygott captured rounding a pylon by Steve Thompson at the Isle of Wight.

No.7. (above) — Mick Pollard high over the Sierras, March Wings!

No.10. (right) — Norman Lomax captures the concentration on the face of Jim Brown as he goes for the spot (August Wings!)



No.8. (above) — Dave Bazeley was quick to catch this shot of a double parachute deployment at Millau (September Wings!)



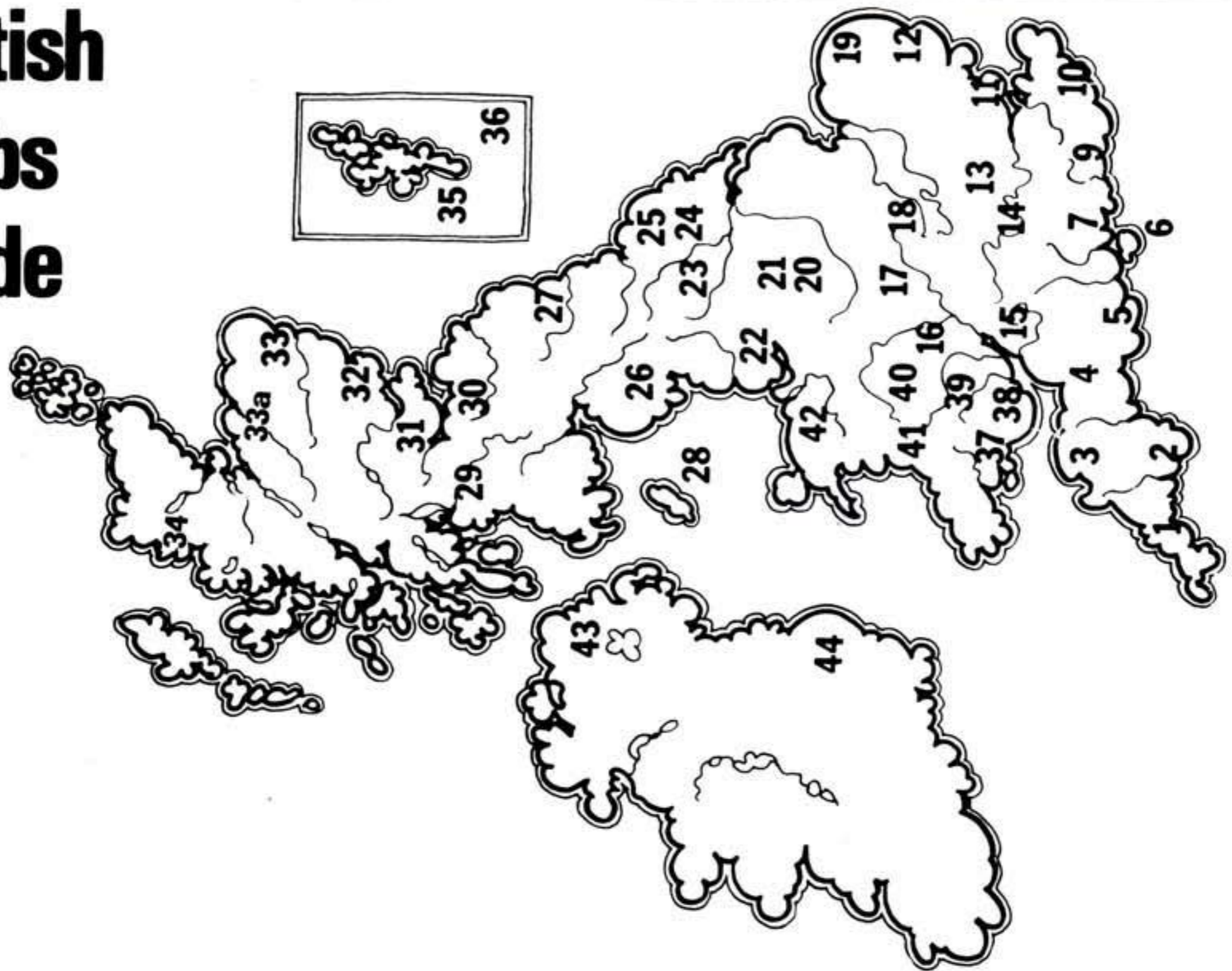
No.11. (above) — another all action shot by Steve Thompson — this time of Dave Perrin clipping a pylon (May Wings!)

## Voting slip

First choice ..... No. (or other) .....  
 Second choice ..... No. ....  
 Third choice ..... No. ....

(Where not choosing from pictures featured here, please state issue, page and other relevant details on a separate sheet.)

# British clubs guide



## CAN YOU AFFORD NOT TO INSURE?

The following Personal Accident Insurances are applicable to United Kingdom based BHGA members and are effective throughout Europe. Powered hang-gliding and microlight cover can be included for BHGA members at no extra cost to rated and well qualified pilots.

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

#### CAPITAL SUM

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

Code	Capital Sum Benefit	New Premium	Renewal Minimum
A5	£ 5,000	£ 25.00	£20.00
A6	£ 6,000	£ 30.00	£24.00
A10	£10,000	£ 50.00	£40.00
A15	£15,000	£ 75.00	£60.00
A20	£20,000	£100.00	£80.00

#### WEEKLY BENEFIT

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

Code	Weekly Benefit	New Premium	Renewal Premium
D20	£20 per week	£15.00	£12.00
D30	£30 per week	£22.50	£18.00
D40	£40 per week	£30.00	£24.00
D50	£50 per week	£37.50	£30.00
D60	£60 per week	£45.00	£36.00

**NOTE:** Benefits are normally paid at end of Disablement period — but in cases of hardship we can normally arrange a cheque each four weeks after benefit starts

For manufacturers, their employees and pilots on development/display flying please add 50% to the above premiums.

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

Give Pilot Rating hours, experience and types to be flown if powered hang-gliding or microlight cover required.

PLEASE GIVE YOUR WIFE'S FULL NAME IF YOU WISH HER NAMED AS BENEFICIARY IN THE EVENT OF YOUR DEATH.

#### GLIDER ALL RISKS (GROUND) COVER U.K. ONLY

Policy excludes Flight Accidents but covers every accidental ground risk that we have yet thought of, e.g. Theft, Damage resulting from Car Accident, etc. (Excluding first £20.00 each claim. Includes 30 days in Europe each year.

GLIDER VALUE £500	PREMIUM £12.00	GLIDER VALUE £800	PREMIUM £18.00
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#### LIFE, ENDOWMENT, HOUSE PURCHASE AND PENSION INSURANCE

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If your Accident or Glider Certificate does not meet your precise requirements we will gladly refund.



# Clubs contacts list

(See map on facing page)

**HAVING a flying holiday? Or just putting the glider on the roofrack while making a "business trip"? Whichever, this latest clubs contacts list will be invaluable.**

The information was the latest available to the Taunton office on 5/11/82.

Even if you have flown a hill before, remember that site rules etc. may have changed — alternative or better sites may have become available.

Itinerant flyers have written to us saying how well they have been looked after and how Contacts Lists have made communication easier.

Often holidaymakers can phone a contact each morning and his/her local knowledge of conditions and weather has saved frustration, wasted time and petrol.

Many clubs have arrangements for temporary membership and make available printed information on their sites.

Fliers coming to visit the

UK may not know the south eastern part of the country is mostly flat and densely populated. Sites are scarce and the few that we have in the areas of clubs numbered 7,9,10,11,12,13,14,17,18 and 19 can get very crowded at weekends.

Public Liability (Third Party) Insurance valid in the UK is essential. If visitors from outside the UK do not have such cover they can obtain it by joining the BHGA.

Thanks to club secretaries for sending in details of changes. Please continue to keep us informed so that the lists we publish every six months in December and June are as up to date as possible.

(HMS Dolphin, formerly club No.8, is now defunct)

## England

1. **KERNOW H.G.C.**  
Secretary: Roger Full, "Tredenek", Townack Road, Rosewall Hill St. Ives, Cornwall. Tel. St. Ives 797651 (work) & 796140 (home). Dave Bazeley: St. Columb 880483 Mich Barclay: Newquay 2656 Billy Scott: St. Columb 880588.
2. **WESTERN COUNTIES**  
Secretary: Bob Tremblett, 29 Rogate Walk, Thornbury, Plymouth, Devon. Tel. Plymouth 709987. Carl Tonks: Paignton 552717 Pete Mason: Bovey Tracey 833039.
3. **NORTH DEVON SAILWING CLUB**  
Secretary: Steve Wells, 12 Ballard Way, Yelland, Barnstaple, North Devon. Tel. Instow 860286. Martin Blake: Braunton 814803 Cyril Kevern: Torrington 2414 Reg Stone: Woolacombe 870320.
4. **DEVON & SOMERSET CONDORS**  
Secretary: Bill Edwards 11 Boothway, Church Path, Wembdon, Bridgwater, Som. Tel: Bridgwater 426384 John Pursey: Bridgwater 57544 Simon Murphy: Luppitt 685 Brian Miller: Lyme Regis 3953 Mike Gianville: Chard 3348.
5. **WESSEX**  
Secretary: Kevin Emery, 25 Pennyfarthing Street, Salisbury, Wilts. Tel: Salisbury 331185. Peter Robinson: Dorchester 852136 Ted Frater: Corfe Castle 480634.
6. **ISLE OF WIGHT**  
Secretary: Pete Scott, Bellevue Nettlesome Green, Seaview, Isle of Wight. Tel: Seaview 2334. Russ Potter: Brightstone 740597 Mike McMillan: Calbourne 488 Rory Carter: Cowes 296042 (work) 295576 (home).
7. **SKY SURFING CLUB**  
Secretary: Jim Whitney, 66 Wymering Road, North End, Portsmouth Tel. Portsmouth 64966 (work) & 697399 (home) Brian Parkins: Hamble 5804 (home) Fawley 894666 (work) Rob Stokes Portsmouth 386814 Dave Brixton: Guildford 233153.
8. **MALVERN**  
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9. **MERCIAN**  
Paul Venus, 13 High Street, Barford, Warwickshire. Tel: Barford 624373. Percy Moss: Kenilworth 59924. Jerry Byrne: 021-56-78140. Robin Billington: Kenilworth 56705
10. **NORTHAMPTON**  
Secretary: Alan Hughes, 249 Kettering Road, Northampton, Tel: Northampton 715682. John Sharp: Northampton 846570. Roger Smith: Northampton 62822. Barry Underwood: Leicester 864699. Dick Callow: Daventry 71348
11. **NORFOLK**  
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12. **PEAK**  
Secretary: Mike Larimore, 18 Chesterton Road, Spondon, Derby. Tel. Derby 662909. John Clarke: Burton on Trent 43879. Graham Bell: Derby 514342.
13. **SHEFFIELD**  
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14. **PENNINE**  
Secretary: John Wood, 19 Daffodil Close, Helmshore, Rossendale, Lancs. Tel: Rossendale 228669. Graham Hobson 061-973-4085. Hughie McGovern: 061-707-1389 (work) Horwich 68838 (home). Phil Robinson: Mellor 2077 (home) Blackburn 56641 (work). Tony Johnson: Bacup 5973.
15. **DALES**  
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16. **GEORGE CALEY SAILWING**  
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18. **CUMBRIA**  
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19. **NORTHUMBRIA**  
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20. **MANX**  
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21. **LONG MYND**  
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22. **MID WALES**  
Secretary: Tim Williams, Llwynrhyddod, Trefenter, Aberystwyth, Dyfed. Tel: Nebo 344 or Rod Lees: Capel Bangor 289. Pat Laverly: Talybont 397.
23. **NORTH WALES**  
Secretary: Diane Hanlon, 37 Kings Mount, Oxton, Birkenhead, Merseyside. Tel: 051-652-5918. Steve Armstrong: 051-638-8644. Bill Huyton: 051-526-1740. Mick Pollard: 051-226-7342. Alf Rogers 051-608-2190.

## Scotland

24. **LANARKSHIRE SOARING CLUB**  
Secretary: Laurence Waterson, 2 Milton Park Square, Lesmahagow, Lanarkshire. Tel: Lesmahagow 892970. Gordon Murray: Holytown 832580. David Whitelaw Wishaw 70033.
25. **LOTHIAN**  
Secretary: Angus Keith, 28 Briard Crescent, Edinburgh. Tel: 031-447-8609. Dave Brunton: 031-229-0383. Ian Trotter: 031-552-7736. John Whitfield: 031-447-3048.
26. **LOMOND**  
Secretary: Peter Finlay, No.1 Cottage, Newton of Stratheny, Leslie, Fife. Tel: Glenrothes 742882. Steve Byrne: Inverkeithing 417447.
27. **ANGUS**  
Secretary: Alistair Milne, 34 Frederick St., Dundee, Tayside. DD3 8RR. Tel: Dundee 819861 (home) 26915 (work). Bill Anderson: Arbroath 75546. Simon Ogston: Dundee 65437. Dougal Scott: Dundee 66613.

28. **ABERDEEN**  
Secretary: Philip McDonald, Sunnyside Dairy, Cults, Aberdeen AB1 9QJ. Tel. Aberdeen 867262. Robert Dunthorn: Aberdeen 877899. Eric Brooks: Aberdeen 861067.

29. **RAF MORAY EAGLES**  
Sites between the Highland and Aberdeen areas are controlled by this club which is "closed" to civilian members. For sites info., contact  
Jes Flynn, Bogs of Leuchars, Lhanbryde (0343 84) 2342. Tom Hardie (0343 830) 683. Al MacNeish (0343) 44865.

30. **HIGHLAND FLEXWINGS**  
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31. **NORSEWING**  
Secretary: Robert Turnbull, 20 Hammersgarth, Mossbank, Shetland. Tel: Sumburgh 60497. Mike Welsh Lerwick 3674. Olaf Gall, Lerwick 88366.

32. **SUMBURGH**  
Secretary: Derek Compton, 11 Sandblister Place, Scatness, Virkie, Shetland. Tel: Sumburgh 60497. John Mackenzie: Sumburgh 60356. Martin Tricket, Sumburgh 60785.

## Wales

33. **SOUTH WEST WALES**  
Secretary: Philip Brown, 7 Field Terrace, Port Talbot, Tel: Port Talbot 887677. John Evans: Ferryside 229.

34. **SOUTH EAST WALES**  
Secretary: Nigel Moore, Flat 4, 110 Penylan Road, Roath, Cardiff Tel: Cardiff 396421 Ext. 34. John Locker: Cardiff 705980. Eric Morgan: Cardiff 387277 (work) 62612 (home). Ceri Davies: Ferndale 730741 Welsh H.G. Centre: Crickhowell 810019. Martin Hann: Cowbridge 552808 (work).

35. **BEACONS PARK**  
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## Northern Ireland

36. **ULSTER**  
Secretary: Billy Carnduff, 186 Upper Knockbreda Rd, Belfast. Tel: Belfast 792228. Bertie Kennedy: Glengormley 2648. Ken McConnel: Glengormley 44113. Chris Simmons: Glengormley 44989

## Republic of Ireland

37. **IRISH HGA**  
Secretary: Randal Gilham, 31 Clonard Drive, Sandyford, Dublin 14. Tel: Dublin 980558. Tom & Jennifer Hudson: Dublin 852856.

## 500 club winners

WINNERS in the 500 Club lottery for October and November are:

October — N.S. Brayn (£47.80); J. EVANS (23.90); P.M. Roberts (£11.95); R.D. Laidlaw (£7.17); D.J. Wood (£5.97); P.M. Usher (£5.97); P. Clancy (£4.78); S.E. Goodman (£4.78); P.K. Shaw (£3.59); A.A. Turner (£3.59).

A total of £119.50 prize money raised and a like amount for BHGA funds.

November — T.R. Pebery (£59.40); M.J. Hibbit (£29.70); J.T. Moss (£14.85); D.D. Evans (£8.91); D. Miliceuic (£7.42); R.D. Laidlaw (£7.42); J.A. Holton (£5.94); A. Mutch (£5.94); J.G. Saphier (£4.46); S. Cronin (£4.46).

A total of £148.50 prize money raised and a like amount for BHGA funds.

## Bob Harrison

The new address of Bob Harrison, BHGA Training officer is Flat 2, Porth Mawr, Brecon Road, Crickhowell, Powys. Tel (0873) 811238.

## Isle of Man

38. **MANX**  
Secretary: Tom Faragher, 73 Kerroo Coar, Peel, Isle of Man. Tel: 0624 84 2857. Ian Cannan: Ramsey 812464.

# New name in tube market

AT a time when there is talk of massive job losses in the British aluminium industry it seems absurd that imported Swiss tubing looks set to make a major impact on the hang gliding and micro-light market.

Exploiting the crippling summer supply difficulties attributed to the Falklands war, Market Metals, of Hitchin, are contacting

manufacturers and tailoring their imported product to the British market.

"At the moment we are concentrating on building up our stock range," said a company spokesman. "The one that caused the problem is 17-gauge tube and at the moment we stock 3/8" to 2 1/8".

The company is not as yet supplying direct to private customers.

# Icelandair

BHGA President Ann Welch and Training Officer Bob Harrison were off on a "good will" visit to Iceland, paid for by fliers there, as Wings! went to press.

The invitation stems from a desire on the part of the country's 30 or so fliers to get the sport on a firm footing.

## Southern meeting

A PROPOSAL by Michael Carnet to slash the Southern Club's membership fee from £25 to £15 was shelved at the club's annual meeting.

Michael argued the high fee was causing falling membership and — rather than add up the club's costs and charge the membership accordingly — it would be better to charge a "sensible figure" and then see what could be afforded.

Now the question has been put off until an extraordinary meeting in April after some of the major site bills have been met. The club's daily membership has been raised to £2.

Bob said he understood a number of pilots were flying homebuilt gliders although Airwave have got an agent in the country which — like northern Norway — offers good flying potential.

One possibility is the assimilation of Icelandic fliers into the BHGA structure along similar lines to our own "island fliers" in Shetland.

## New Solar glider

SOLAR Wings are working with Graham Slater to produce a two-up triking wing based on the Typhoon.

On the free flight side, Solar's Cliff Ingram says the company is working on a "clean" weightshift glider to succeed the successful Typhoon 'S'.

Meanwhile, he said, the refined Typhoon 'S' — on the scene now for about two months — had "caught quite a few people by surprise" with its sweet handling. It incorporates a new sail cut and other "more subtle" refinements.

# Flexiform's new 'homebuilt'



Mike Hurtle: "People are losing out"

FLEXIFORM Skysails of Manchester plan to sell their Skyline intermediate hang glider in kit form.

The company, registered as Lite Air Industries is directed by Mike Hurtle and Tim Freeman since the departure of Hughie McGovern.

# Not what's wanted

SENIOR citizen hang glider pilots Ray Lidstone from Blackpool and Bob Robinson from Darlington came down to earth with a bump in a competition to find Britain's sprightliest pensioner.

Both thought they were in with a great chance of netting a £500 regional prize or even the national prize of £3,000, plus a similar amount for charity.

But at separate regional finals in Manchester and Leeds, both quickly realised the Legal and General Golden Years Award was more about encouraging others to be active than being active themselves.

"I felt I was in the wrong competition," said Bob who also runs ten miles a day and somersaults over his car. Said Ray: "I thought 'this is dead easy' until I suddenly realised by the questions they asked that I wasn't going to get it."

Said Mike: "I think there are a lot of people making the mistake of buying a glider that's too sophisticated for them. I reckon you want 12 months on an easy glider and a lot of people are losing out flying gliders that are too advanced and they're breaking arms etc. and no-one hears about it."

"I think that's why so many ordinary people are taking to triking."

Flexi believes the kit glider — which will sell for under £500 and take about two days to build — will fill a definite hole in the market. The company plans to apply for a C of A in due course.

# Dales change

NOEL Whittall has resigned as chairman of the Dales club after five years to be replaced by Pete Anstey, another long established flier.

Others elected at the packed annual meeting were Tim Moran (secretary/treasurer), Mike Clayton (newsletter editor), John Stirk (safety officer), Jim Brown (coach), Eric Rowley and Stan Abbott. John Turner was co-opted as Site Safety Officer.

Retiring secretary/treasurer Bill Douthwaite reported the club was in a "healthy state" with 122 full and 22 associate members and no subscription increase was necessary. Peter paid tribute to the work of Noel is now devoting more time to BHGA work.



• Alan James launches off Rhossili by parachute (a 230sq.ft. Spirit) "It's easily soarable in 15mph-plus," he says. Pic Alison Nicol.

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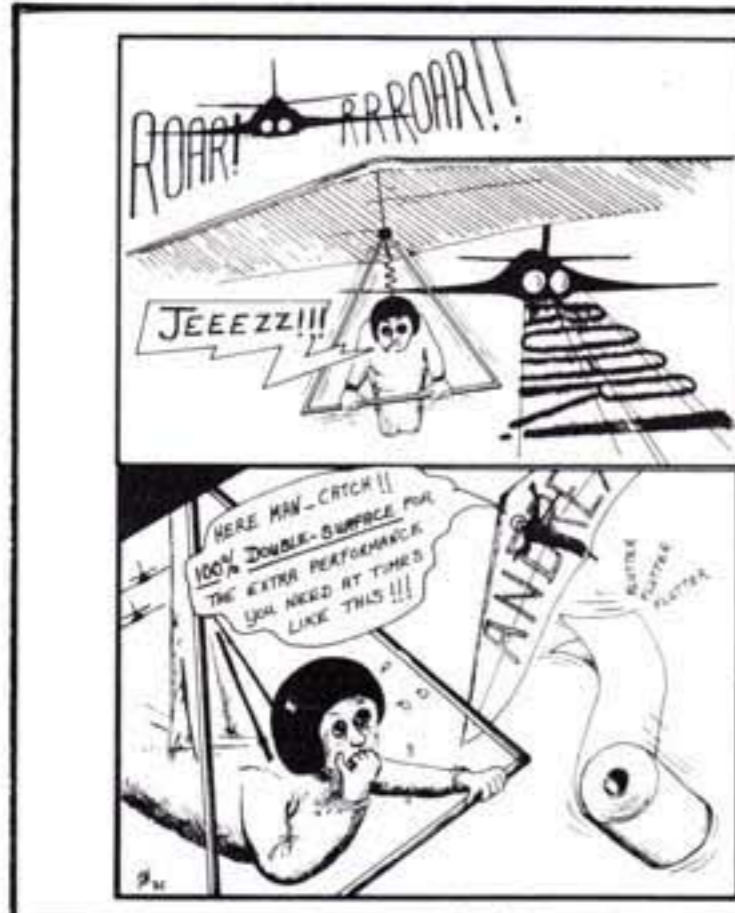
FLIGHT GEAR, Clay Lane, Newbridge, LoW, PO41 0UA. 0983 78 488

# Wings! delay

Because of delays at our packagers and on the part of the Post Office, some members will have received their November Wings! up to two weeks late. We apologise for any inconvenience.

# New Magic

AIRWAVE Gliders have developed a new refined range of Magics by re-cutting the sail on its existing range, adding a shiny Mylar leading edge and recrafting the Mylar tips.



## Headway on Notams

NEGOTIATIONS between the Dales Club and the RAF have resulted in the provision of a special form for the duty officer to fill out when hang gliding pilots issue a Notam.

This now means there will be written proof of a Notam having been issued and it will cover all RAF aircraft operating within the RAF Leeming control area. The number to ring is (0677) 23041.

If the system is seen to

work well — and so far it has — it will strengthen the case for the USAF adopting the same system.

It is USAF Phantoms and A-10s which pose the major hazard at present with aircraft often will be below the 200ft. AGL legal minimum and Nont Sarah's in the Pennines a particular trouble spot. A mid-air collision there is seen by some as more "probable" than "possible".

## Balloon drop 'ready to go'



McCarthy: "Difficult"

BALLOON drop man Rory McCarthy was "on standby" to make his attempt on the world hang gliding altitude record as Wings! went to press.

The planned balloon drop from up to 36,000ft. — which aims to raise £1½m. for Jimmy Saville's Stoke Mandeville appeal — should go ahead as soon as conditions are right.

But, says McCarthy, if no attempt has been made within a month, the team will go to make the drop in America.

"Balloonists need no sun and no wind and the chances of us getting those climatic conditions right up to 32,000ft. are remote.

"The other possibility is to forget all about the one-man attempt and just go for the two-man record from 22,000ft."

McCarthy's partners in the venture are Gregory Rogala and John Moody and the attempt was originally scheduled for August 20. "It's taken this long to get the charity side worked out. We've also done lots of work and lots of research and it's been a lot more difficult than we originally expected."

BHGA policy on Flight 30,000 is that it does not enjoy the association's support or approval.

### De-registered

The Devon School of Hang Gliding has been de-registered by the BHGA because the bill for the school's mandatory insurance has not been paid.

# New Southdown glider flies

SOUTHDOWN Sailwings Ltd. plans to launch its new Sapphire glider in the New Year.

The machine has been flown top-to-bottom but is understood still to be very much at the prototype stage.

Southdown's Keith Reynolds was not prepared to divulge many secrets about the glider but conceded it did utilise "a form of wingtwist" for directional control.

## Puma at Norfolk

Reynolds is looking forward to concentrating on the new glider after a year in which the company's time has been consumed almost entirely by continental demand for the Lightning DS power wing, produced at the astonishing rate of six a week.

"It's been good news for the company in its first year but bad news for me because I am a hang glider pilot through and through," he said.

Meanwhile, the company's agreement with Graham Slater's Ultra Sports over production of the two-seat Puma aircraft has come to an end, ostensibly because Southdown were selling Lightning DS wings to which buyers were fitting the trike of their choice rather than buying the complete Puma aircraft with Ultra Sports trike unit.

Now Southdown is producing its own trike for those buyers wanting a complete aircraft. It combines the basic Ultra Sports configuration with a Mainair-style engine and reduction drive and Southdown's own engineering.

# glider flies

"We will be producing it in quite small numbers to fill the gap Graham's left. We didn't particularly want it that way but it may work out better for us."

John Hudson and Geoff Ball of Mainair won the Norfolk air race on a Mainair trike fitted with a DS Lightning wing and not a Flexiform Striker as reported last month. Wings! apologises for this error and any embarrassment caused.

# DANGER!

## Power lines

HANG glider pilot Sohail Syed escaped unhurt after he flew into an 11,000 volt overhead power cable after a flight off Crook Peak, in the Mendips.

He intended to land in the field at the foot of the hill, beyond the cable.

"I misjudged one of my turns and ended up behind the cable instead of in front of it," he said.

There was a blue flash which burnt a hole in the glider. But Mr Syed was not

touching its metal frame and was unharmed.

He narrowly missed the pylon carrying the cable.

Apart from the obvious moral — plan your bottom approach before you take off and NOT half way down the hill, the Electricity Council issues advice to pilots and rescuers, particularly regarding the danger to rescuers when an injured pilot is touching wires which may be live.

### Advice to Clubs

- FIND OUT from the Electricity Board where these lines are in your area.
- DISPLAY maps showing the location of lines and the emergency telephone numbers of the Electricity Board
- INSTRUCT members in rescue and first aid

### Advice to Flyers

- NAVIGATE from a map, if practicable, on which all overhead lines have been marked
- KEEP WELL AWAY from lines. Remember lines, especially those on wood poles, are not easily seen from the air.
- STAY PUT, if you collide or become entangled with a line, until help arrives

### Advice to Rescuers

- DO NOT APPROACH, nor let anyone else approach, damaged or grounded lines
- TELEPHONE the Electricity Board immediately, giving the location of the accident as accurately as possible
- AWAIT ADVICE from the Electricity Board — remember that any line involved may still be "live"

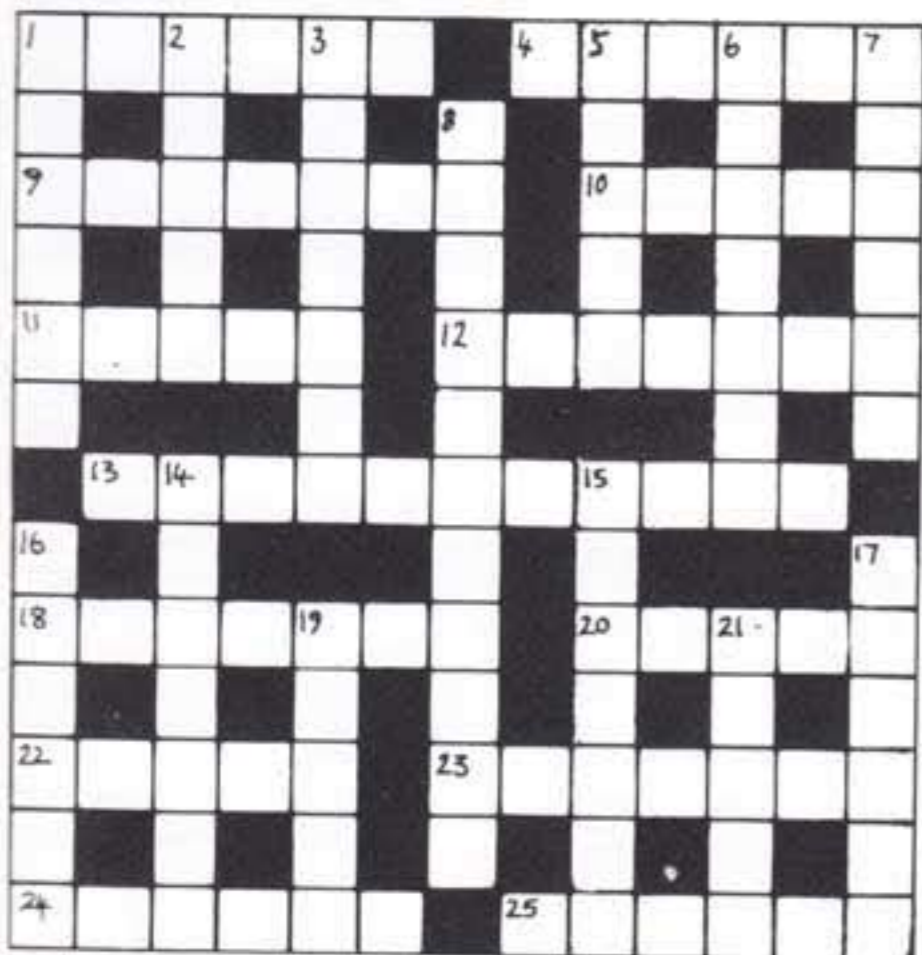
### IF IN DOUBT — ASK

The addresses and telephone numbers of the local office of the Electricity Boards may be found in the telephone directory under "Electricity".

# Mainair prize crosstube-word

No.15 by Satan Bottle

Send your entries by January 14 to: 72 Hartley Avenue, Leeds, LS6 2LP. Mainair Sports of Rochdale will send their catalogue and £10 credit note to the first correct solution selected at random from all entries. The solution to crosstube-word No.13 by Ian is printed here. Solution to No. 14, by Alicauria will be published next month.



## Clues

### Max glide

- 1) Loud 49, your old is so dirty (6)
- 4) Sounds like I'm ready for holiday as I hit the hill? (6)
- 9) Penniless old lager froths into fast car? (7)
- 10) It is purposeless - shake us one (2,5)
- 11) "C" team in rumpus about pip-pin? (5)
- 12) Burn little Gulliver for Cyclone-makers (7)
- 13) "Grounded" gliders are shadows? (11)
- 18) Broken, vario 51 is eaten in Rome (7)
- 20) ...and shovels and chooses? (5)
- 22) One in my liquid assets (5)
- 23) Sod Leon! Crazy in soup, there's lots after point! (7)
- 24) Solar, say, in messy stem of plant (6)
- 25) That's where we keep t' chickens, 'appen, tha hears. To shut the little blighters in their cage? (6)

### Coring sink

- 1) Let Fay juggle for loyalty (6)
- 2) I call badly for shrub (5)
- 3) Bunkum! Where pigs go to get clean? (7)
- 5) Fledge-maker's male thank you (5)
- 6) A cake, gosh! It'll help fix the glider on! (1,6)
- 7) Sets ruined by fly pest (3,3)
- 8) Disrupt northern occlusions for deductions (11)

- 14) What Miles Handley or Jean-Louis Darlet does inside the air conditioning? (7)
- 15) Glider gets direction after tea (7)
- 16) Stitches up bottom bars and up-rights to make control ones (6)
- 17) Wear out and have evening meal, he finishes it (4,2)
- 19) Roche mixes a pale yellow (5)
- 21) There's nothing under the dungeon but an instrument (5)

## OCTOBER SOLUTION



The winner of puzzle no.13 by Ian was David Bridge of Oxfordshire.

Every hour of every day, seven days a week, from Scotland to Antarctica, Portugal to the Seychelles, **Puma** is flying.

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 4467 / Southern Microlight, Merstham, 07374 2969 / Lamymah, Spilsbury, 07902 249 / Cairn  
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# When speed is of the essence....

WHEN flying, a pilot has to have complete confidence in the security of his/her suspension system. As a link between glider and harness, the climbing karabiner is usually used.

It is simple, strong, and virtually foolproof. It is also easy to use as a connection/release device — but as we all know, only under ideal circumstances, and when conditions are less than good it can be difficult or impossible to release.

Murphy and Sod got together, and decided that the occasions when rapid vacation of glider/parachute/whatever, is required, will not be "ideal circumstances!" Some examples:

1. Flying over water, and being "sunk out" (sorry).

by Jes Flynn

2. An emergency landing, post-parachute deployment, with 80lbs of glider around your neck.

There are others, but they all have one thing in common — the inability to escape readily from the offending attached article can lead to injury or death.

To alleviate the problem, some people have flown, or still do fly, with knives. For some time, however, parachutists have had a cute item called a jack-knife to rid them of unwanted cords and webbing. At this task it has no equal.

Perfectly shaped for one-handed

slashing, its V-shaped cutting mouth holds two incredibly sharp blades, which excel in munching braided fibres! One pass will see a severely severed hang-strap or 'chute bridle with very little effort.

Its method of use is obvious. If, for example, you are going down in the oggin, simply

1. go budgie/get upright,
2. grab knife,
3. wait until 20' over oggin,
4. reach up, firmly pass through hang-loop, and,
5. Splash. (don't forget to swim).

I am NOT an agent! If interested, write to P.A.P Parachuting Supplies, P.O. Box 54, Ramsgate, Kent.

The knives are £6.



## Rhossili: a fool's paradise?

WELL grandfather, who now remembers those hot, windless, summer days in the distant past when the only way to soar was to go and sit on the hill and wait for the sea-breeze to come up?

We would carry up about 11am and rig even though the wind was south-east, and then sit talking till five or six 'o clock. I was just learning to soar and to talk to other, more experienced pilots, than myself was instructive to say the least.

Noel Whittall and Ian Trotter were visitors I remember well in those far off days. Ian was an Observer and had one of the early Super Scorpions, I was green in the shadow of my Hiway 200 (green kite, see).

I hung on their every word when they talked about soaring. That summer Ian signed off my Pilot task form.

Things have changed. Rarely do experienced pilots go to Rhossili when the blobs are to be had inland. The P1s who want to learn to soar have only each other to talk to on the hill. When the odd day comes along when there is an inversion at low level and the local, more experienced pilots do go to Rhossili it proves to be a chance to sling the kites about and generally set a poor example of how to ridge soar.

On those sultry days we would wait for 16-18 knots before flying so we were all on the ground for quite a while even after the wind started up the hill. Now we can soar the hill in a zephyr (not the latest Hiway kite) and are all airborne before the nonks are on the hill.

A few weeks ago the cloud was 30 feet above the hill and several people were enjoying the art of clag hanging. The locals were either soaring halfway down

by Marc Asquith

the hill out of the cloud or trying to get out in front of the orographic cloud bank.

And what were the others doing? Well, one German pilot was soaring two-man with his son in the cloud, mixing it with a P1 who was teaching himself to soar on a Sunspot. Both regularly disappeared from sight for many minutes, and, I guess, lost sight of the ground for long periods.

The German finally semi-crashed on to the pimple. Meanwhile, the Sunspot practised instrument approaches on top — without instruments!!! Finally he too semi-crashed on to the pimple, gashing his leg on the barbed wire.

A few of us wandered over to suggest that his flying lacked discretion and found our comments unwelcome. It is becoming all too common to find beginners unwilling to ask for, or listen to, advice.

Rhossili is a special case as almost everyone knows about the hill and thinks they can handle it. This is mostly because those of us who know the place well can perform tricks which, if copied by a novice, would be lethal. How many pilots appreciate that the innocuous looking beach ledge can on occasions provide a fierce rotor which has been known to swat the unwary.

Everybody says there is no rotor on top but few mention that the further back you go the more severe the wind shear. Believe me, I know.

What about the direction of the wind? The hill is flyable from NNE through NW to SSW and often the locals can be seen flying in these odd directions. In NNE the wind on the pimple appears to be NNW and so fairly easy, until you take off into rotor from the main hill. What is the diff-

erence between 255° and 245°? In 255° the wind is only just coming over the Worm's Head and providing only light turbulence, whereas at 245° it comes off the cliffs providing unpredictable holes in the air on take-off and through all the flight.

This is easily spotted as the ventimeter on the pimple is up and down like a yo-yo. We had 40mph on top the other day and yet 5-22 mph only 250 feet lower on the pimple.

Rhossili is often flown in very strong winds, indeed 40 on top is common and we all take off from the pimple. However, some people don't realise that 20plus mph on the pimple means that the compression zone over the brow of the main ridge is waiting like a black hole to suck in anything fool enough to come close.

A visitor arrives on the hill and sees lots of people flying, rigs and leaps off, hugging the hill as he always does at home, very soon he is sitting on the top either grateful to have survived a landing going backwards or nursing the ruin of his kite, having ground looped in the wind.

There is a wall at the bottom of the hill. When below the pimple, go as close in as you like but as soon as you get level with the pimple head out over this wall and stay upwind of it. Don't worry about going down as the lift extends out over the beach.

There are few of us enough in South Wales on this hill often enough to give advice when asked, let alone go around spotting loonies. With this in mind, I would remind everybody from Bob C. to Joe P1 that kingpost markers are a brilliant idea, so use them even if it's only rings of coloured masking tape. It might well save your uprights one day. Nevertheless, please find someone in the know and ask, ask, ask.

## Vortex & Sunspot

REMARKS in October's Leader Page comment on the BHGA test rig have led to a number of queries as to the safety of certain gliders.

The following observations on the Vortex and Sunspot were written by the then BHGA Airworthiness Officer Clive Smith and appeared in Wings! last December.

**VORTEX** — Fact: from statistics alone, if you are in early P1 days and flying a Vortex (badly) you stand the HIGHEST chance of ANYONE within the BHGA of stalling and not taking suitable hill (and DEATH) avoiding action.

The Vortex can be very resistant to stalling but can and does BITE HARD.

This is the UNCONTROLLED STALL, often entered in complete serenity while turning.

The Vortex, being a high-performance glider of the fourth generation, requires to be FLOWN, at the right speed and suitably CO-ORDINATED in turns, as do many others.

Vortexes WILL fly slowly, but don't be tempted in gradient close to hills or bottom landing, particularly if flying CROSS-WIND.



**SUNSPOT** — It has been noted in Wings! by Len Gabriels that these and other contemporary designs can suffer in high speed pitch stability when incorrectly tuned — particularly overtuning!

All gliders have their speed limitation (VNE) in straight flight — and control instabilities or overstressing result from exceeding it.

The Sunspot's high speed instability is almost certainly "luffing", pitching down into a stabilised dive, rather than complete rotation.

The exact speed is dependent on many things but until rig-testing is completed it is assumed to be well above maximum in straight flight for a correctly tuned example.

Loss of control due to cloud-flying, aerobatics or just plain bad weather is ALWAYS serious. With the Sunspot the possibility of entering a steep dive is there, with others the tuck, spin or spiral dive can be the result of serious pilot INEPTITUDE.

RECOMMENDATION — Keep in CORRECT tune (seek EXPERIENCED advice). Observe personal and weather maxima. Do not execute heavy sideslip or high speed manoeuvres. Use a parachute system.

## Safety recommendations

A MEETING of the BHGA's accident investigation and prevention committee has called for an investigation into the relationship between the frequency of accidents and the number of flyable days.

Other recommendations included one that — in line with CAA studies on the conspicuousness of aircraft — gliders should preferably have dark undersur-

faces and bright top surfaces, e.g. yellow or orange.

- By one means or another, all gliders should be aerodynamically tested for the benefit of those concerned with safety, the results to be confidential except when found to be detrimental to the membership. Such statistics would greatly assist the airworthiness board in compiling the parameters reg-

arding desired aerodynamic behaviour of hang gliders.

- Hang gliders with power units must be approved by the BHGA and BMAA if used for training purposes in hang gliding.

- Schools are recommended to train pupils in the semi-prone position.

- It appears fewer injuries are incurred by pilots flying 6in above the control frame base bar, rather than 2in.

- The committee agreed to consider ways of reducing accidents caused through "human error".

*Dedicated to all ab initio and P1 pilots — here is the story of "The First Flight of Hermogenes Smith." Remember that though some of us may never become (or want to become) League pilots, we all share the same dream and exhilaration when it starts to be real: "I FLEW today!"*

## Rupert Soars into the Air a guide for those starting ultra-light flight



1. Dual flights help overcome initial fears for the novice

2. Always point the aircraft into wind

3. Failure to park onto wind can result in groundlooping



4. Do not take off if the wind is too crossed

5. Pull on flying speed after take off

6. In wave lift, do not be tempted to enter cloud



7. Take care to avoid rotors when making top landing approaches

8. Downwind cave landings are dangerous and should be avoided

9. Do not "scrape" too close to the ridge in marginal lift



10. First prone flights can be tricky

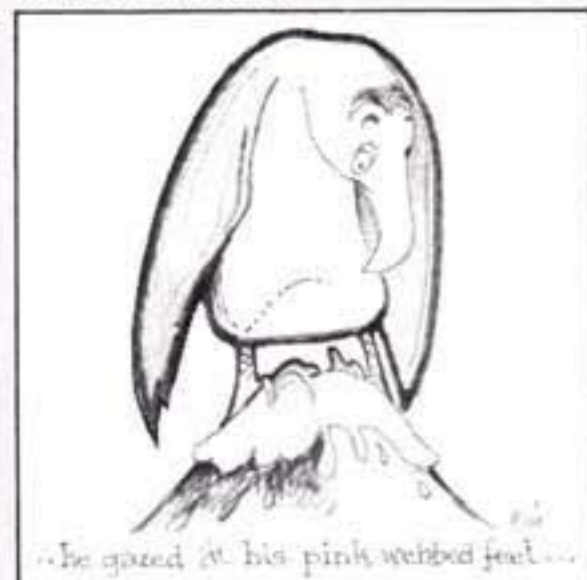
11. Fly straight out on first time prone flights

12. NEVER forget to check your harness BEFORE each launch

HERMOGENES Smith, once a portly shopkeeper in Leeds, sat uneasily on a guano-covered ledge and tried not to think of the terrifying drop into the sea below him.

All around, seagulls were diving off the cliff face and practising flying manoeuvres: skimming over the surface of the waves, circling, play-fighting and soaring. Hermogenes shivered and gulped nervously.

"Oh blimey," he thought. "If I'd known this would happen I wouldn't 'ave stepped in front of that bus." He gazed for the hundredth time at his narrow feathered body and rather dirty pink webbed feet. "Oh Gawd!" he said. "I AM a ruddy seagull. I don't believe it!"



Just then, a large and wise-looking gull swooped swiftly and unfairly at him, stalled deliberately, and landed smoothly on the ledge beside him.

"Welcome to the flock," it said in a kind voice. "I expect all this is a bit strange to you, but you'll get used to it. There's no need to worry — there are others like you and they've made great contributions to the well-being of the flock. Anyway, that'll come later. I'm here to teach you how to fly."

"Oh blimey," croaked Hermogenes. "Er — I think this is all a big mistake. You see I stepped in front of this bus and — um, well, I found myself like this! Isn't there some higher authority I could go to, to sort it out?"

"It's all right," said the older gull patiently. "It takes time to adjust. Now then, stretch your wings out like this and beat them up and down slowly. Watch!" He moved his smooth, long wings gracefully, the wind from the

# The first flight of Hermogenes Smith

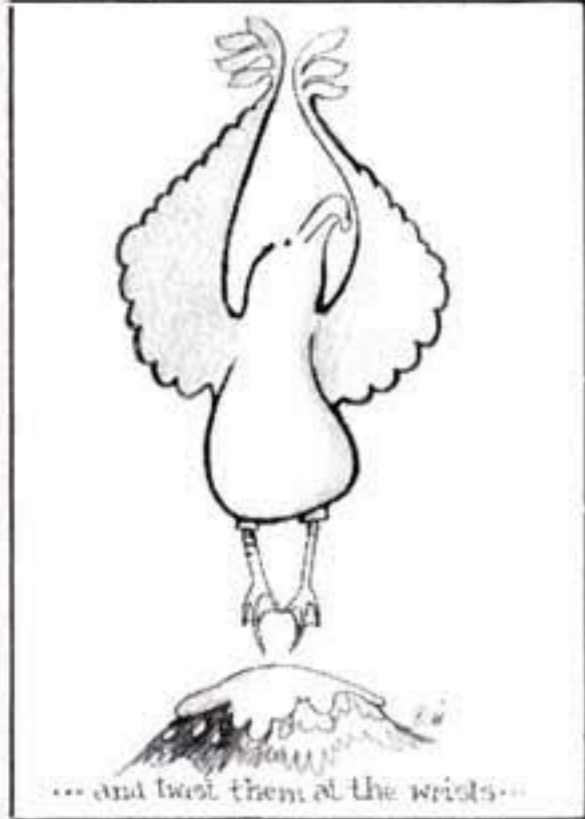
A flying parable for Christmas by Sharon Braley (Mrs. Biggles)

strokes ruffling Hermogenes's feathers and making him blink.

"Go on, try it!"

Tentatively, Hermogenes stretched out his wings and moved them up and down as much as he dared — about an inch.

"No, no, no!" laughed his companion. "Move them up so that they almost touch over your back, and twist them at the wrists so that you make a workable aerofoil at the tips on the downstroke."



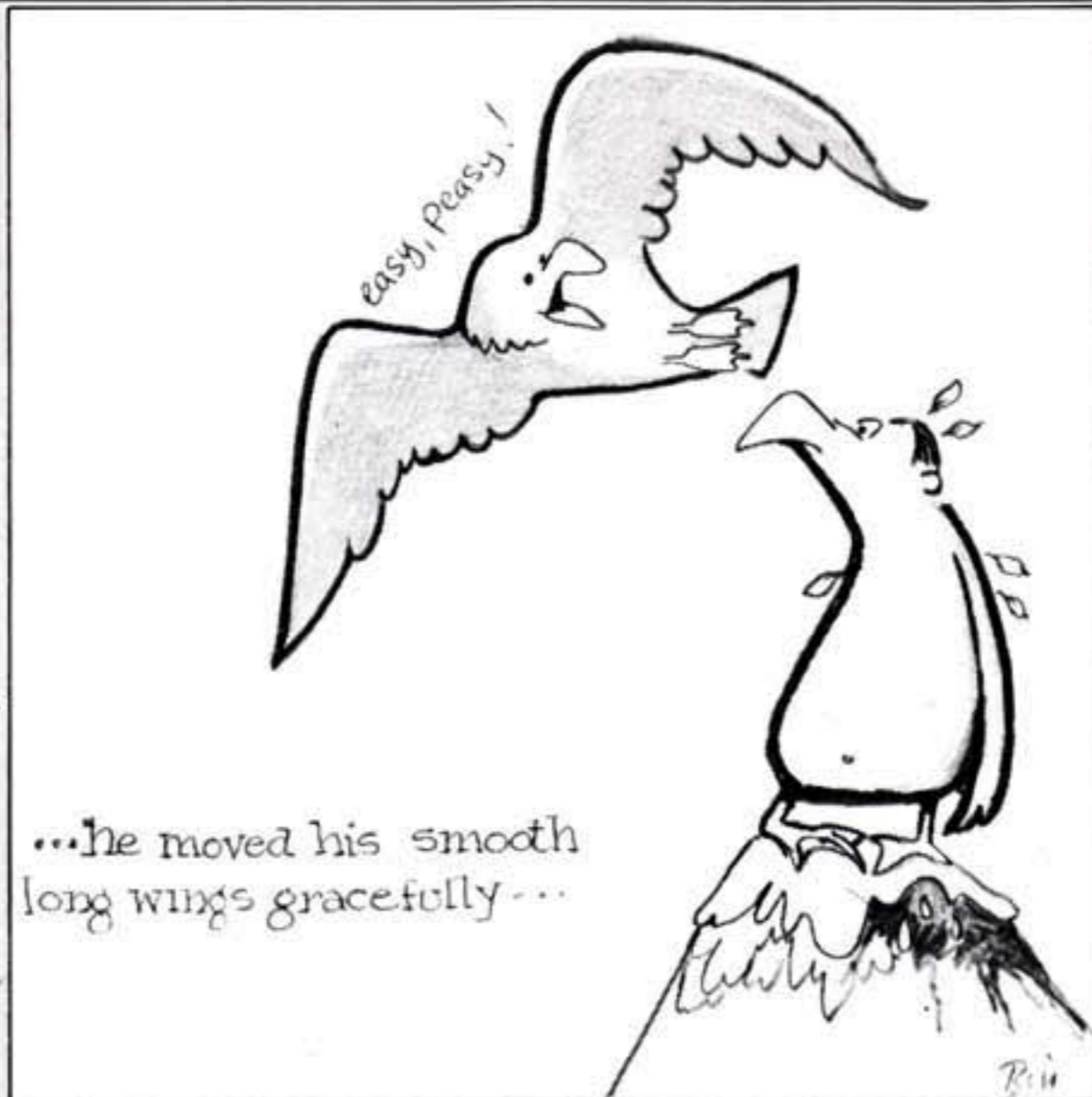
"Blimey!" thought Hermogenes again. He raised his wings as high and as quickly as he could, felt the air flowing between his feathers rotate his wingtips back, and then he brought them down, feeling each feather lock into its neighbour, forcing the air down and behind him. Amazed at his success, he looked excitedly at his instructor. "I did it!" he cried, "I did it!"

The older gull smiled to himself. "Yes," he said kindly. "Now try it again, only this time I want you to keep flapping until you start moving forward and up. When you feel that happen, sweep your wings forward from the top of the upstroke and then you'll stop. Okay?"

"Okay," answered Hermogenes nervously. He stretched his wings to their full length and started flapping. He was just getting the hang of it when a sudden draught of air came curling over the ledge as he began a downstroke. His right wing lifted and he felt himself tip forward. "Bloody 'ell!" he thought incoherently, visions of the sea surging below adding to his panic.

Instinctively, he half folded his left wing and flapped down hard with his right. This resulted in an undignified crash into the cliff wall at the back of the ledge. Disappointed and shaken, Hermogenes folded his wings and sat unhappily beside his teacher. The old gull looked at him sympathetically.

"You've just learned the first rule of flight," he said at last. "As soon as you unfold your wings you must think flight: commit yourself to the air. Rem-



ember, you are a bird now. Once you have unfolded your wings you are no longer bound to the earth, and you can not be hurt until you hit it.

**Remember that the air will carry you.** It's your job to use it to take you where you want to go. Now, bearing that in mind, tell me what you should have done then...."

Hermogenes thought for a moment, his nerves ringing like a harp string because he suddenly wanted to fly. In that brief second of panic he had become aware of the power of the wind.

"Should I have leaned to the right and dived forward and out from the cliff?" he said, his guts tightening as he imagined himself actually doing such a horrifying thing. (Except, as he thought about it, it wasn't horrifying, it was.... different.)

"Very good!" smiled the old gull. "I'll tell you a few more details of technique and the wind itself, and then we'll go out and try it."

Hermogenes gazed at his instructor with open disbelief. "What, now?" he gasped, his mouth dry.

"Why not?" came the inevitable answer. "I think you'll manage fine. The wind's just right and the air's not too crowded — it's nap time. Now, imagine that air is flowing up this cliff face like water would...."

After what seemed far too short a time to Hermogenes, his teacher stopped talking and, with his head full of new concepts: wind gradients; rotors; aerofoil shapes in flapping and gliding; different methods of landing; stalls; airspeed, windspeed and groundspeed; Hermogenes was ready for his first flight.

"Now remember," said the old gull, "if you hit turbulent air, either give hard or flap hard. Speed is safety, in the air. And, most of all, think of the first rule: **You are a Bird — You are of the air!**"

"Oh blimey!" whispered Hermogenes to himself. His teacher heard and looked at him sternly: "Don't you want to fly?"

Hermogenes looked straight at him with excited eyes that had a trace of fear in them. "Of course I do!" he cried. "It's just that...."

"Come on then!" said the old gull, and he stretched out his wings, flapped experimentally, and dived expertly off the ledge.

"Now or never!" thought Hermogenes grimly, all his muscles tense, and then he too stretched his wings, flapped wildly, and jumped.

His first paralysing sensation of a sickening fall backwards was broken by a hoarse cry of: "Lean forward, idiot, wings back!" Desperately, Hermogenes obeyed and found his stall righting itself into a heart-stopping dive. His thoughts upset by the terrifying exhilaration, he was only gradually aware of the cold surface of the sea rapidly approaching. "Tips forward!!" Swiftly Hermogenes twisted the ends of his wings into wind and felt the drag increase so that the sea dipped underneath and the cliffs swung around slower and slower.

"You'll have to flap!" shouted a voice from nearby. Frantically, Hermogenes carried out the movements he had tried on the ledge, but they were nothing compared to this luxurious sensation of the wind sliding through and then over and under his feathers. As he flew, he became aware of his

instructor gliding effortlessly alongside: "Try gliding!"

Hermogenes indulged in another downstroke and then held his wings tautly into the wind, his body sliding smoothly through the buoyant air. Confidently he dipped his left wing and fell forward into a graceful banked turn. "Steady!" warned the old gull, but too late.

Hermogenes had been flying too fast and was now falling in an uncontrolled spiral towards the sea. Fear and disappointment choked his mind as the sea spun up. "Turn right!!" cut in an angry cry. With all his strength Hermogenes flung his weight in the opposite direction of his turns and flapped wildly. Sobbing for breath, he came into straight flight.

"Second rule!" shouted the old gull. "Know your limits and transcend them slowly! See that rock over there? Follow me and we'll land on it."

Flying quietly beside his teacher calmed Hermogenes down and he began to really enjoy himself. He had almost forgotten about landing when the old gull suddenly fell into a sharp dive to his right. Swallowing hard, Hermogenes dipped the leading edges of his wings, and followed.

When he straightened out of his dive a few feet above the surface of the water, his instructor was waiting for him.

"Slow down!" he cried, and Hermogenes increased his angle of attack until he was almost at stall point a foot above the rock. "Flap slowly at the same angle and come down gently," he thought. And then, Hermogenes Smith finished his first flight and landed self-consciously beside his teacher.

He looked around and all the fear and exhilaration burst from him in a shout. "I did it!" he cried. "I flew!"



The old gull smiled at him with the understanding built up through years of teaching gulls how to fly. "That was good," he said. "But before we go back to your ledge there are a few mistakes we must clear up...."

And Hermogenes Smith began to learn how to fly.

• Dedicated to the memory of Howard Edwards

# MAGIC 1983

AIRWAVE GLIDERS ARE ONCE AGAIN  
**ONE STEP AHEAD.**

THIS SUMMER'S DEVELOPMENT HAS  
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OUR SUBTLE IMPROVEMENTS IN ALL  
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HANDLING COMBINE TO OFFER YOU  
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\* BETTER WASHOUT CONTROL  
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\* OPTIMISED PLANFORM FOR  
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FLOW.

\* RAINBOW OR EXPONENTIAL  
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\* AEROFOIL SECTION KINGPOST  
AND/OR UPRIGHTS, TO REDUCE  
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\* SPEED BAR.

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FOR A SHORTER PACKAGE.

\* SINGLE OR DOUBLE FRENCH  
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Dual Skymaster available to order

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## 1983

I would like to take this opportunity of sending the Season's greetings to all my customers, who helped to make this year so successful. Not forgetting my suppliers, whose products made it all possible.

Next year we are all hoping for better flying, and I look forward to helping some of you attain your ambitions in this fantastic sport. If you are interested in the products of Airwave, Arbee, Diplex, Skymaster, Ultra Sports, Sky Systems, Chargus and Thunderbird just give me a call. Advice (for what it is worth!) is given free. Secondhand items always available.

**SIMON MURPHY,**  
Turf House,  
Luppitt, Honiton,  
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Let's hope 1983 will  
be a Magic year (again).

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Johnny Carr &  
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Before you buy anything, check the promise on page 8.

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

Members' small ads are 13p a word, minimum charge £2.65. Small business ads are 17p a word, minimum charge £3.85. Please specify required classification:

Small boxed ads, £1.10 extra. Full display ads are £1.55 per column centimetre on these pages or elsewhere in the magazine.

Minimum 4cm, maximum 25cm and — unlike small ads — need not be prepaid. Send your intended layout and we will typeset it for you. A small extra charge is made for this service where an element of design work is required.

Spot colour — just 20 per cent extra on any ad.

All small ads should be sent to Ruth Kohlman, BHGA, 167a Cheddon Road, Taunton, Somerset, TA2 7AH, and marked on the envelope "Wings! ads".

Cheques and POs payable to BHGA please.

For your own safety, if you are purchasing a secondhand glider, see it test flown, test fly it, and inspect it thoroughly for damage or wear to critical parts. If in doubt, seek advice from the club Safety Officer.

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### Move up to: Magic—Demon—Gyr

We will offer the best possible trade-in deal on your old glider.  
Phone Biggin Hill  
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MEGA 195 with moving cross-boom. This glider is in excellent condition, is suitable for 12 stone + pilots and ideal for dual flying. Only £475 ono. Phone: 01-876-1394.

AZUR magnificent flier, superb quality, contact NGS 061 973 4085.

DEMON MEDIUM. 20 months old, blue black sail, good condition, £590 o.n.o. Tel: Kendal 27818 after 6pm.

MEDIUM STORM, only 13 hours, spotless sail, unmarked frame, looks and flies like new. £450 o.n.o. Phone Rod on Highclere 253 282 (Newbury).

MIDAS C for 10 stone intermediate, white and beautiful like me! Light to carry and ground handles beautifully. Rigged seated or prone — £100 including harness. ALSO CQ PARACHUTE. Former League pilot's chute. Never used so it's got to be as new! £100. Peter Harris (0424) 432042.

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AZUR unbeatable value at £950 including VAT. Contact NGS 061 973 4085.

AZUR immediate delivery from NGA stock — contact 061 973 4085.

CHEROKEE MEDIUM: Excellent example of this 1st Class intermediate glider. Unique black and gold sail. Including seated wires prone or supine harness and altimeter £400. Ring Bristol 664611 x485 days or Thornbury 413797 evenings.

TYPHOON MEDIUM — nice colours and flies like a dream £575. Tel: Robert Close-Smith, Buckingham 2325.

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AZUR proven & tested, carries the German C of A, contact NGS 061 973 4085.

DEMON medium. Excellent condition, a dream to fly. £575. Phone Kay Simpson, Hitchin (0462) 52103 after 6pm.

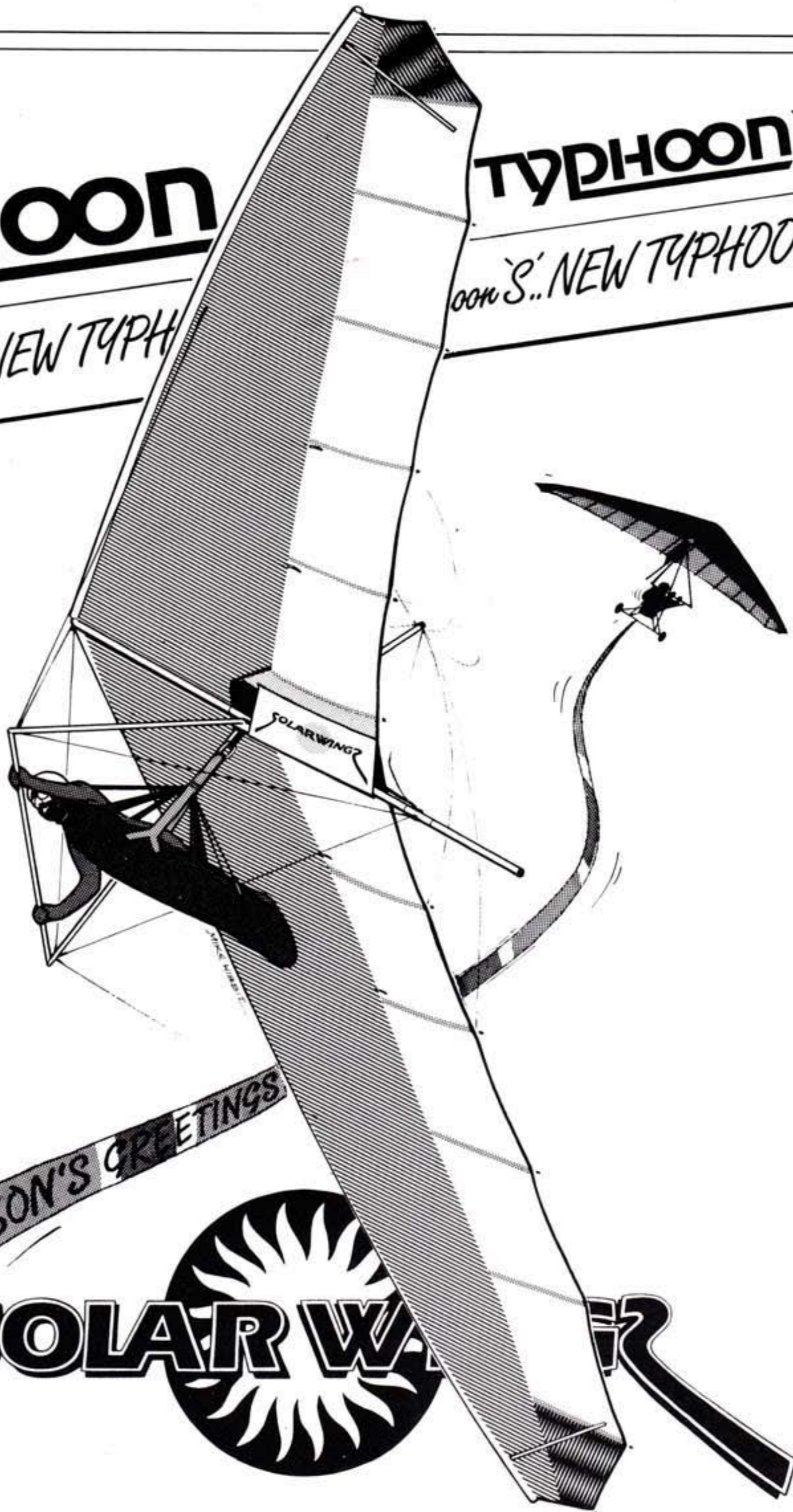


# TYPHOON

# TYPHOON'S

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SEASON'S GREETINGS

# SOLAR WING



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## — AUSTRALIA —

### XC League

PILOTS Down Under used to think of going elsewhere for big XC distances — that all changed last year with flights of 156 and 123 miles.

Now, to encourage others, the Australian XC League is in its second year with the Aussies determined to wrest the title from the USA's Jeff Scott who claimed it first time round.

The League operates despite Australia's punitive anti-hang gliding air law and looks for the best average distance over five flights.

There are a number of prizes up for grabs in the contest which runs to June 30 next year, including more than \$250 each for the best distance on a Moyes glider and the best distance on a Skytrek glider. The manufacturers have also offered \$500 to any pilot busting 200 miles on their make of kite.

*Skysailor*

### Prize Buffalo

PREPARATIONS for Australia's premier international event — the Mount Buffalo Classic — are well under way.

As mentioned in October Wings!, the main contest runs for ten days from January 6 and there will be a special \$100 prize for the first 100-mile flight, put up by Valley Homestead, a local accommodation centre.

A first in the Classic will be the timing of pilots from the time they leave the vicinity of the mountain — all will use radio and notify marshals before crossing a start line, giving them the opportunity to wait as long as they want before "going for it".

*Skysailor*

## — AUSTRIA —

### Monthly prize

A THREE-month open XC contest at Zillertal next summer offers prizes for the best distance each month and hefty rewards for first, second and third overall.

Airwave Gliders have appointed new agents in Austria — Kurt Pirker in Salzburg and Pepi Gasteiger in Sillian. Airwave's Rory Carter reports Gasteiger is a good contact for visiting British fliers — he can be contacted at Ostirol A-9920.

## — FRANCE —

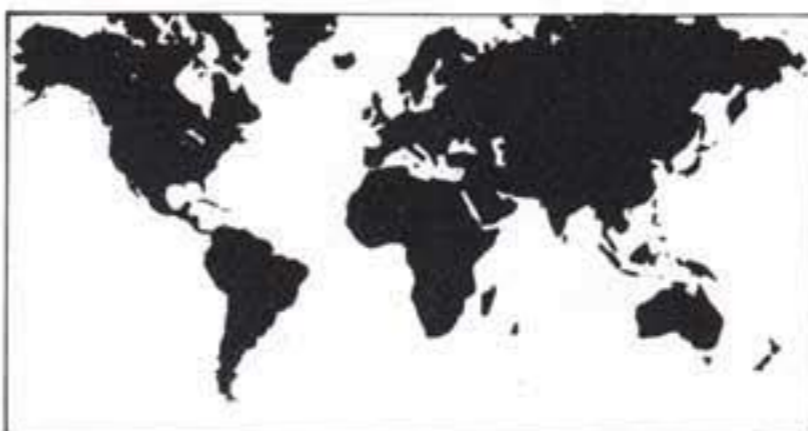
### Two-up winners

THE first European two-person hang gliding championships (backed by the FAI) were won at St.Hilaire in eastern France by Philippe Mermoux, president of the French association's training committee.

Finesse 10 magazine reports the competition enjoyed flyable weather every day and centred

# COSMOPOLITAN

The monthly Wings! round-up of overseas news, dos and views, compiled by Stan Abbott.



on pylon courses followed by spot landings.

The contest attracted considerable local and media interest but few overseas or top class French competitors.

The organisers apparently expected people like the British to extend still further their already lengthy trips to the European championships.

What they failed to appreciate was that the art of two-up flying is considerably more developed in France where it is widely used for training and "joyriding".

Consequently, the French have the gliders too, although Jacques placed second and Kostner tenth on Lightnings, and Reigl 11th on a Demon. There were 16 entries.

## — NEW ZEALAND —

### XC latest

Warren Grey, flying a Meteor, leads the New Zealand XC League with a total of 71 miles over three flights. His best distance is 35 miles. The next seven pilots are all flying Vampyres.

## — SWITZERLAND —

### Cheat!

A pilot called Hans has had his FAI Sporting Licence revoked for cheating in a Swiss competition in May. He claimed 18km after having flown only 9km.

### Sensor around?

SWISS Cup champion Werner Müller plans to go into glider production, reports Vol Libre Magazine. Speculation is that the design will be based on the American Sensor.

Meanwhile, glider and microlight designer Hans Gygax — the man behind the Vampire, Microstar and Sherpa — is planning to produce his next design himself, a "traditional" hang glider with a rigid leading edge and, most probably, aerodynamic controls.

## — USA —

### Streak

Pictured is the Delta Wing Phoenix Streak which claims to

be the first US glider with "maximum effective double and detached under surface". The glider — of which Johnny Carr flew a prototype at the Owens Valley Classic — is a 133-degree nose angle, 158 sq.ft. machine weighting 72lbs and sporting 87 per cent double surface.

## Bob Lovejoy

The tragic list of leading American Ultralight manufacturers to lose their lives at the controls of their own machines grows even longer. The latest death is Bob Lovejoy who designed the Quicksilver, among the world's most popular machines. He was test flying the new Avion when it was seen to pitch up on final approach, level, and dive 30 feet to the ground.

*Glider Rider*

## — WEST GERMANY —

### World Championships

SWISS writer Didier Favre has been sounding more dire warnings about what to expect at next year's world championships at the Tegelberg.

Most sensible Germans, he writes in Vol Libre Magazine, go and fly elsewhere, such is the oppressive level of bureaucracy in the country. He speaks of site wardens who are to hang gliding what "Quasimodo is to finesse", papers to sign before every flight, local cliques who ensure outsiders can't fly and so on....

Meanwhile our own Rory Carter has visited the site and reports likely tasks of 16-20km goal flights which will make it a very tactical contest. Just one goal is "over the back". One thing that will please the British team, however, — there's good fishing in the area!



The Bennett Streak (see USA)

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**STORM** — tasteful sail, excellent handling. To include Hiway prone harness and helmet. £450. Telephone: Portsmouth 754281, however kite at Rosyth, Scotland.

**MIDAS**—E. Vgc with low airtime, never pranged. Multicoloured sail with seated harness and various extras. Quick sale needed. £1750.n.o. Call: Jim 051-525-7870.



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**PUMA 330cc,** 2 seat. G-MBXX. Mint condition. £2250. Keith Dickenson 0253-730958/0772-51957 (office).

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



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Aéronautique



BHGA



Member of the  
Royal Aero Club  
of the UK

*WINGS!* is typeset by Leeds Alternative Publications Ltd., and printed by Arthur Wigley and Sons Ltd., Leeds LS6 2RT.

Additional artwork by Harry Hammill.

The magazine is published by the **British Hang Gliding Association, 167A Cheddon Road, Taunton, Somerset, TA2 7AH (0823-88140).**

You can get *Wings!* every month by joining the BHGA or on subscription of £12 a year. For overseas subscriptions, send Sterling International Money Orders — £12 surface mail or £25 airmail — for your annual subscription Membership details will be sent on request. Address ALL QUERIES to the Taunton Office.

The views expressed in *Wings!* are not necessarily those of the association, its council, officers or the editor.

All contributions to the magazine are welcome. Articles should be typewritten (double-spaced), one side of the paper only where possible. If not typewritten, they should be CLEARLY written, with plenty of space between the lines.

Photographs should bear full captions and any material to be returned should be accompanied by a stamped addressed envelope. Any other material will be kept and filed for future use.

The Editor reserves the right to edit contributions.

If your *Wings!* does not arrive, or if you change your address, please contact the membership secretary at the Taunton headquarters. Please give FIVE WEEKS notice of change of address and in all correspondence quote your full name, address and MEMBERSHIP NUMBER (where applicable).

If you, your club or any hang gliding activity gets written up in a local or national paper, please send a cutting to the Taunton office for our cuttings collection (this applies to the UK only).

### The BHGA Council

**President,** Ann Welch OBE; **Chairman,** Roy Hill (Longworth (0865) 821129; **Treasurer,** Percy Moss (0926-59924).

**Members:** David Bedding (08444 — 7186); Diane Hanlon (051-652-5918); John Ivers (049-525-4521) Mike Watson (01-299-1199); Terry Prendergast (029673-8033); Jim Taggart (0874-82366); James McMenemy (09804-6147).

**Co-opted members:** Chris Simmons (Northern Ireland) (02313-44989); Dave Clayton (01-642-0630); Noel Whittall (0532-504683); Graham Leason (0734-792423).

**Officers and staff:** Principal Executive Officer; Barry Blore (0235-834033); Office Manager, Ruth Kohlman (0823-88140); Training Officer, Bob Harrison (c/o 0823-88140); Medical Adviser, Dr. Dunstan Hadley; BHGA Solicitor, Anthony McLaren Membership Secretary, Janet Hayes; Record and FAI Award claims, Rick Wilson (0734) 21099; Radio Communications Officer, Dave Smith; Overseas Travel Adviser, Lindsay Ruddock (07843-34740); Competitions Chairman, Derek Evans (0892-36026).

### BHGA pricelist

Windscreen Badge.....	.35.....
Helmet Badge.....	.25.....
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coloured logo on white shield with letters BHGA above.	
FAI Delta Bronze cloth badge.....	£3.95.....
Cloth Badge.....	.70.....
Hang glider shape tricolour containing letters BHGA	
Pin-on lapel badge.....	.40.....
"Know The Game — Hang Gliding" by Ann Welch. Published by KTG 1978. Introductory & Training Handbook. Comprehensive and inexpensive.	£1.10.....
"An Introduction to Hang Gliding" by Bob Mackay. Published by Thornhill Press 1981. Covers the development of hang gliders — how they fly and how the Student Pilot progresses to soaring and cross country flying.	£2.25.....
"Soaring Hang Gliders" by Ann Welch & Roy Hill. Published by John Murray 1981. For pilots of all abilities who wish to become experts. A must for all intending cross country pilots or those who want to fully understand what it is that our sport has to offer.	£6.20.....
"Hang Gliding Don'ts and Don'ts" by Bob Mackay and with drawings by <i>Wings!</i> cartoonist Bill Lehan. Published by Sailwing Publications 1978. A lighthearted look at the sport in verse and anecdote. Includes "Jonathan Livingstone Penguin" and other favourites.	£1.70.....
"Air Medical Notes for Hang Glider Pilots" by Dunstan Hadley. Published by Airline Publications 1981 (Hardback). The pilot of a hang glider is more exposed to the elements than any other kind of aviator. Dr. Hadley, the association's medical adviser explains, in simple terms, the risks a pilot faces and how they can be minimised.	£6.40.....
BHGA Pilot's Log Book.....	£1.20.....
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Written for the non-pilot to provide background information necessary during elementary training	
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Payment is requested by crossed cheque, crossed postal order or, if you live outside the UK, by Sterling International money order. Please make payable to BHGA. p&p included.	

### Xmas

The Taunton Office will be closed for the Christmas holiday from December 23 to December 28 inclusive. Merry Christmas to all our members and subscribers and good wishes for 1983, from Barry, Bob, Janet, Joyce, Carol and Ruth at Taunton.

### Wanted

DEMON or TYPHOON or COMET, also vario with audio. Phone Chertsey 09328 64702, Southern England.

### Schools

**SUSSEX COLLEGE OF HANG GLIDING,** 185 Queens Rd, Brighton. Teaching Prone and top landing. Power too (on proper airfields). Spares repairs and sales. FLAC Hiway Lightning, Sigma 12 metres £350. Lightweight Mini Floater £575. GYR Marauder, Super Scorps (2 virtually new at £600) etc. SSC wanted part-ex Tel: Brighton 609925/24151 ext. 171.

### Bailey's Yorkshire Hang Gliding and Microlight Centre

Hang gliding courses — Dual trike microlight courses — Thermalling and cross-country courses in beautiful Yorkshire  
Details — 2 Denton Avenue, Leeds 8. Tel. 662518

### Personal

E.JESSOP extends seasonal greetings to all members of the vintage trike club.

RONNIE — were you really innocent at the League Final. PC 8471 k n o w s

Merry Christmas, everyone, from Michèle who does the typesetting.

## BHGA 1983 AGM

THE 1983 BHGA Annual Meeting will be held on March 20 at the National Sports Centre at Lilleshall in Shropshire.

All formal resolutions must be submitted to the Taunton office by the end of December, except those relating to a change in the constitution with require 56 days notice.

Resolutions must bear the names and signatures of proposers AND seconders and full details and voting slips will be sent with February Wings!

As usual, a minimum of one third of seats on council will be up for re-election. Any members willing to work and help manage the association should contact the Taunton office. Nominations are open until the start of the meeting and should be accompanied by the signatures of proposers and seconders.

Barry Blore