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SAILPLANE & GLIDING

Magazine of the BRITISH GLIDING ASSOCIATION

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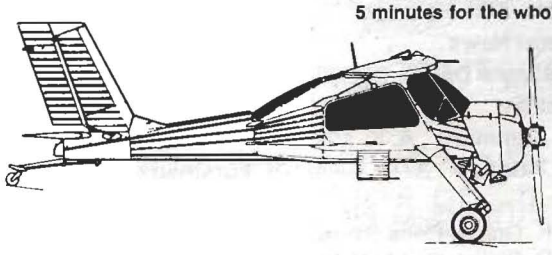
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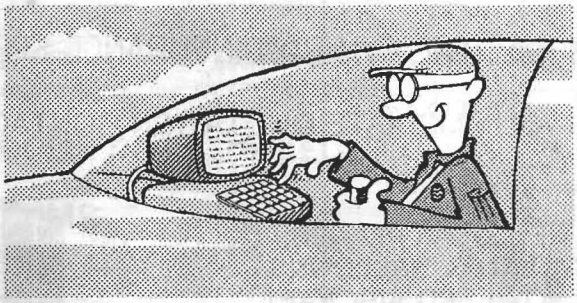
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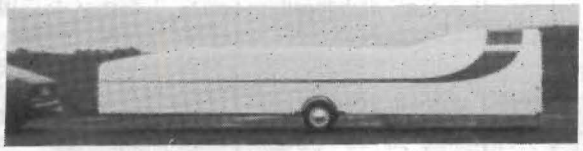
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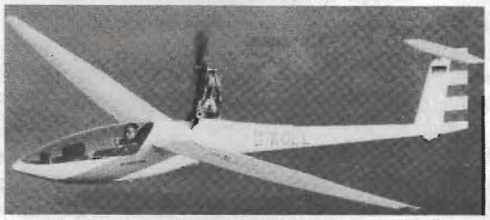


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CHAIRMAN'S REPORT

T. S. ZEALLEY

In reviewing the activities of the past year there is no single major highlight nor any important general theme beyond that of "steady progress". While membership of our clubs is generally static, there has been a continuation of the growth in the number of gliders being operated, reflecting an aspect of the steady improvement in the quality of our gliding. During the year the Executive Committee set up a small working group to study membership trends and to produce a development plan for British gliding over the next five years. It is important for us to take stock from time to time, to see that we are heading in the right direction. A related consideration is that the Sports Council, from whom we get significant grant aid, are more concerned to assist the development of sport rather than supply funds simply to maintain a *status quo*. We therefore need to agree what our development plans are.

Enhanced voting power

The year has seen a number of developments in the relationship of the BGA with other aviation bodies. We have joined AERO, the organisation devoted to improving air education. We have plans to review our relationship with the ATC who have recently started to re-equip themselves with modern glass-fibre gliders. We have affiliated to the Air League — the old-established organisation which aims, largely on a "political" basis, to improve airmindedness in Britain. The Air League is one of the three member triumvirate who were all established before the first World War; the other two being the Royal Aeronautical Society and the Royal Aero Club. The BGA is the leading member of the RAeC, paying the largest subscription and, following a recent amendment to its constitution, getting enhanced voting power on its ruling council. (We also provide the secretariat of the RAeC). The RAeC of course, forms our vital link with the FAI, the authority for all our badges, records and international competitions.

It was at the annual reception of the RAeC last autumn that Peter White of the Bannerdown GC received the FAI Tissandier Diploma from Prince Andrew (RAeC president) for his work in assisting disabled people to glide. Other awards which have been earned this year include BGA Diplomas for services to gliding by Ted Shephard and Bernard Thomas and an OSTIV Diploma by Frank Irving for the best technical paper presented at the Paderborn conference.

The World Gliding Championships held at Hobbs, New Mexico, saw some outstanding gliding weather, with strong thermals and high cloudbase. Unfortunately, the British team, with limited experience of such conditions, did not do well and George Lee surrendered his crown, following his hat-trick of Open Class wins in the three previous World Championships.

The Nationals started off badly as far as weather was concerned, with the 15 Metre Class at Booker struggling to get some very marginal contest days. Later on, the Open at Lasham and the Standard at Husbands Bosworth were more fortunate although stubble fires at the latter rather dominated the flying. The Lasham Nationals were supported by Marconi Avionics who provided outstanding hospitality facilities, both for their own and BGA VIP guests. The occasion was used for friendly discussions with a number of very senior people in the aviation world who can exert considerable influence on our gliding destiny. Notable amongst these guests was David Mitchell, the new Minister responsible for aviation, replacing the previous minister, Iain Sproat, who lost his seat at the last General Election. Mr Mitchell listened with a sympathetic ear to our concerns about the new airway at Portmoak and our airspace problems in general. We have real hopes that he will do something to put right the existing situation where there is no appeal procedure to deal with airspace injustices.

Different aspects of club membership of the BGA have arisen during the year: There are now a number of clubs where motor gliding represents a major part of the activity and these have applied for membership of the BGA. The CAA have expressed concern that some of these clubs may be using the dispensations which are allowed to the BGA for glider pilot training to provide a cheaper route to the power pilot's PPL thereby undercutting the conventional powered aircraft clubs. The Executive is also concerned only to admit to membership of the BGA those clubs where glider soaring is the primary objective. The situation is being closely watched.

The Executive Committee has also discussed how far it is reasonable to withdraw services from individual pilots who belong to clubs which are not in membership of the BGA. Non membership by a club can arise through expulsion for failure to comply with important BGA regulations (which regrettably, has arisen this year) or through refusal to join for money-saving or other reasons. We may not wish to penalise individual pilots, but the BGA depends substantially on subscriptions from clubs while a major part of its work comprises services to individuals such as the processing of badge claims. We must be careful to maintain a reasonable incentive for people to belong to the BGA.

An important objective of the BGA is to try to ensure a good safety record for gliding in Britain without being bureaucratic. At the last BGA AGM there was a clear consensus against the proposal to raise the standards of the Bronze certificate in an attempt to combat field landing accidents amongst early cross-country pilots. The alternative approach of encouraging club instructors to shoulder full responsibility in this area (as in others) was generally endorsed. To prevent the burdens of responsibility on instructors extending to major personal financial risk, the BGA has recently taken out a "safety net" insurance policy which underwrites the usual glider insurance policies, to give protection to BGA categorised instructors who may be sued for negligence.

Accidents studied carefully

Despite our efforts on safety I have to report again a number of fatalities (six) this year. These, as well as the lesser accidents, are of course studied carefully by our Instructors' Committee. They are assisted in this by the statistical work of the Safety Committee which has been carried out for a number of years with great care and thoroughness by Arthur Doughty. He has recently taken a well-earned rest from these duties which have now been taken over by Keith Mitchell the new Safety Committee chairman.

Another long serving member of the Executive Committee retired during the year, in the person of Joan Cloke. Joan has served on the Executive Committee and the Council which preceded it for

(Continued on p61.)

Spring Thoughts on Current Affairs

KEN STEWART, national coach

Had a good winter? Done any wave flying or hill soaring? Or are you just one of those pilots who went into hibernation around November?

If only we could all fly south like the birds we think we emulate, rather than hibernate like the squirrels. Still we have all seen those puffy white clouds (cumulus, if my memory serves me right), and the body is filled with that weird sort of adrenalin which tells us to clear our pockets of nuts and rush off to the gliding club.

But just hold on. Assuming you can remember where the gliding club is, are you sure you can remember what to do when you get there? That probably isn't as funny as it seems. Every year some pilot or other takes to the air with some primary control unconnected, usually resulting at least in a broken glider — that's if he or she is lucky.

This is possibly an extreme example of reduced winter activity, but the more common problems are also of grave concern. You see it all happens so fast. Hardly have we wakened up to the fact that the days are getting longer and the thermals have returned before we realise we haven't got a clue where the parachute is and when it was last repacked — if it has ever been repacked.

"I wonder where the barograph is hiding? — Ah, yes! Fred must have it — or is it still in the boot of the car? You know, since we came back from Aboyne — in October!" Minor problems perhaps but nonetheless, they all help slow you down. So let's get the glider out of its trailer and rigged. Now where is that pin? Isn't it strange how the wings won't go on as easily at this time of year as they did last autumn? There's rarely anything wrong with the wings or fuselage, it's you! Let's call it "fumble factor". The problem is that you haven't rigged the glider for a while or given it a DI. This is obviously a dangerous phase. You should be double checking everything, but it is mid-day already!

Well, that's got the glider together and now it's easy. Tow the glider to the launch point (if you can find the rope), climb in and fly. You did notice the new C of A ticket, didn't you? It has been given a C of A hasn't it? Of course it has, that's why there was a spanner lying on the seat.

Still enough of this hypothesis. These things don't happen to you. Let's get on with the flying. After all it is a lovely day, sun shining and moderate wind. There is a slight delay in your launch whilst they remove the glider which has just groundlooped from the strip. You casually get out of the cockpit and remove your tail dolly, so avoiding the same embarrassment.

"All out." The airfield always seems rougher than you remember. The first set of P10s was obviously caused by the bump just before you gained flying speed, or was it? Despite the tug pilot climbing too sharply, (obviously you guess due to his lack of currency), you manage with your superior skill to stay somewhere behind him. The air is a bit rougher than you anticipated: something to do with wind strength and thermals, both of which abound in spring. It is nice to be airborne again, even if you could have used your sunglasses, but such minor nuisances don't worry an ace aviator such as you.

Frantic search

After a quick lookout at 2000ft you decide it's clear to release. Pull the toggle between your legs and — feel the rudder pedals disappear, a frantic search for the correct knob follows. The tug has already started his fast descent. (The climbing turn whilst still attached probably helped.)

You float along effortlessly whilst utilising all your highly trained senses to find a thermal. Then you feel it. That gentle push in the seat of your pants which tells you that you have contacted lift. The turn entry is crisp, even if the ball of the turn and slip was giving a "false" reading, and despite the broken nature of the thermal, the vario is indicating weak lift all the way round the turn. Yippee the first thermal of the season.

The wind you note is drifting you away from the airfield, but since you are obviously climbing that won't worry you. About three or four minutes of hard centring you notice that the altimeter is a lot stickier that it was last summer, "Probably just a little dampness" you think, giving it a tap. Horror! It winds down 400ft.

It is about now you remember John Williamson selling you that super little Dolphin soaring aid when you attended that fantastic BGA soaring course and see that you had forgotten to set it to "climb". What a twit! You have been thermalling **downwards!**

Suddenly the airfield seems a bit far away and your first thermal flight of the season becomes your first cross-country. You pick a field. It is a beauty. How can you go wrong?

Your circuit, to use the expression loosely, is designed to place you on an approach through the gap in the trees on the downwind boundary. After some jumbled incantations the undercarriage goes down and the speed increases. It is about now, having just made your final turn, that your eagle-sharp eyes observe today's deliberate trap: a power cable running across your chosen gap between the trees. This, however, presents little difficulty as the field is huge and a few frantic mid-course corrections soon overcome the problem.

Speed — well, near enough. Open the airbrakes — more — more. At this point you are vividly reminded that the airbrakes on your old Skylark were so much more powerful than your newer glass-fibre machine. You are still a bit high which causes some panic and the next thing you know you have lowered the nose in a sub-conscious attempt to get it down.

Seen from your chosen landing spot your glider is now doing what looks like a competition finish of which to be proud, but it is a funny place to practise your first racing finish. Your huge field no longer seems huge, foreshortened by speed. The fence is rapidly getting closer and you think it might be a good idea to do something, and fast. Let's try a turn?

As you climb out of the wreckage you may well be wondering why you were pulling on the undercarriage lever instead of using the airbrakes, or you might be visualising a telephone conversation, "Hello Fred? About Aboyne next October?"

An improbable tale you may think, but a quick glance through **Accidents to Gliders** will show that such events happen. Here are a few 1983 examples.

A Jantar 1 pilot towed his glider to the launch point and on hitting a small bump whilst lining the glider up for take-off, *both* wingtips hit the ground. The main-pin was not in place.

Two ASW-19 pilots all but wrote-off their respective aircraft by pulling on the

(Continued on p61.)

TAIL FEATHERS



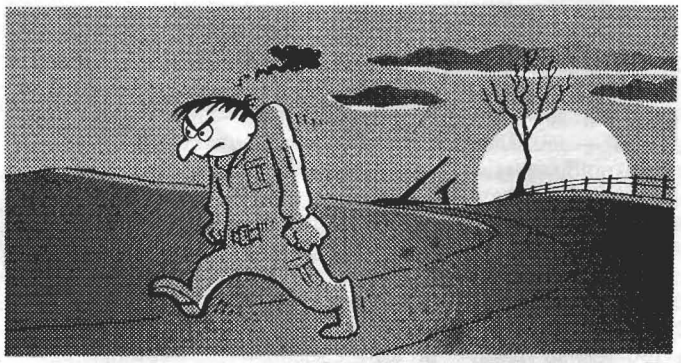
by PLATYPUS

A REAL STINKER — CAN YOU BEAT IT?

A friend of mine was in the bar of a golf club in Rye some weeks ago, when he overheard an old chap exclaim, "Fellow's an absolute boundah — shot a swan during the Two-Minute Silence!" Apart from one's delight at hearing the antique expression *bounder* being dusted off and given an airing, there is the true astonishment — one nearly said admiration — at a rotter who could do two socially and morally unacceptable things at one and the same time: a double-barrelled cad, so to speak.

Mrs Platypus thinks the only comparable action in gliding would be "a partner who ran off with a pilot's wife while he was away on a cross-country —"

"— *and* forgets to leave the trailer keys behind!" adds Platypus.



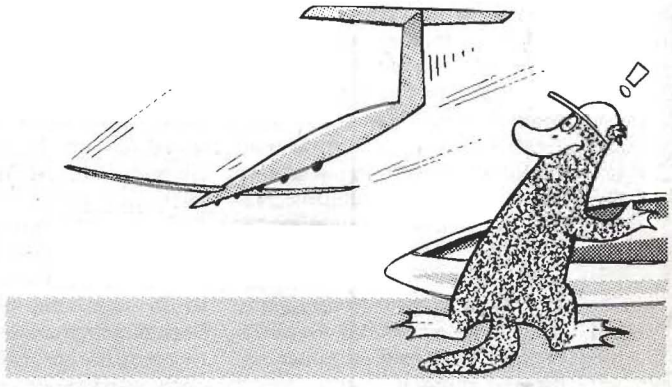
Forgets the trailer keys

I would welcome any (printable) suggestions from readers as to what other villainy would qualify a glider pilot to be called a bounder — I mean, a boundah — in the same league as the Armistice-Day swan-potter.

Low and Slow or High and Hairy?

There's one great thing about the Psion "Flight Simulator" game for the Sinclair Spectrum — because crashes are so incredibly frequent it'll discourage a lot of people from wanting to become power pilots and even more from wanting to be passengers in airliners or any other powered aircraft, which from our selfish point of view is just splendid.

It is a maddening game for one simple reason — although the rate of roll is appropriate for an aircraft of say 40ft span, the rate of pitch is so slow as to simulate a fuselage 1000ft long with great weights at nose and tail to maximise the moment of inertia. If Psion could get that one thing right, a good-value

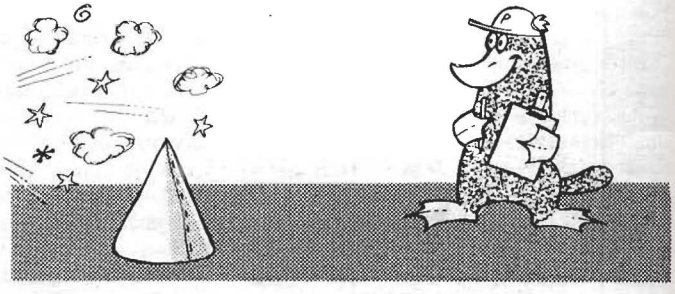


So slow as to simulate a fuselage 1000ft long

program would become terrific value. As it is, pilots with 1000 hours or more of real aviating can hardly ever land the blighter — even in the easiest mode. There are two tricks for landing: one that I read about in a computer magazine sounds like the way people used to "cheat" at spot landings in gliding aerobatic contests — what you do is to trickle along a few feet off the deck then cut the throttle as you stagger over the threshold of the runway. Very unsubtle. In the case of the glider spot-landings you would use the brakes to do the same, not considered quite *comme il faut.*

Fly entirely on the throttle

My way with the Flight Simulator is entirely the opposite: since the elevator is a menace I leave it strictly alone for as long as possible and fly entirely on the throttle, climbing well above the proper glidepath to start off with, then dropping down on reduced throttle (steeply, to avoid the horrendous stall and wing-drop that Psion does so well). If anyone knows how to modify the program so as to obtain a decent rate of pitch, *ie* a



Some with big flat aerodromes still overshoot

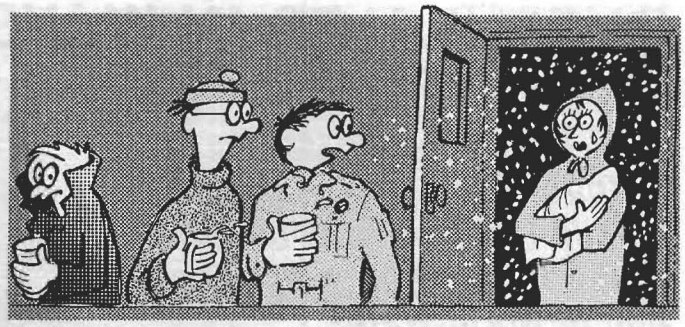
more responsive elevator, please write in. Grateful acknowledgements will be made in this column.

Coming back to glider spot landings, the reason why it was considered a poor show to land on the paper cone in the way described above is that it favoured gliders with divebrakes, and spot landing contests were started way back when most gliders had no brakes and sideslipping and fishtailing were really essential skills (I love a good sideslip or slipping turn, even in a glass ship). Later on wheels with wheelbrakes made it even easier to cheat. Another reason why the low and slow technique was frowned on was that the whole point of spot landing skill was (and still is) to enable you to get into small fields, usually with trees on the approach. A real spot landing Comp would involve a 50ft high obstacle — no *not* a tree — like a streamer strung between two tethered balloons. I know quite a few people from those great big flat aerodromes who would still overshoot . . .

Now – The Painless Way

I've seen some intriguing advertisements in S&G in my time but the recent one offering sterilisation operations is the most enterprising for some while. The aversion of male glider pilots to the responsibilities of parenthood is legendary, so the clinic in question could be on to a good thing. On the other hand, the mainstay of most clubs are those monastic fettlers who year in, year out make the workshop their cell and the trailer park their cloister: I don't see them succumbing to an uncontrollable tidal wave of lust — not unless they spot an original Minimoa rudder lying *intacta* in the hangar roof.

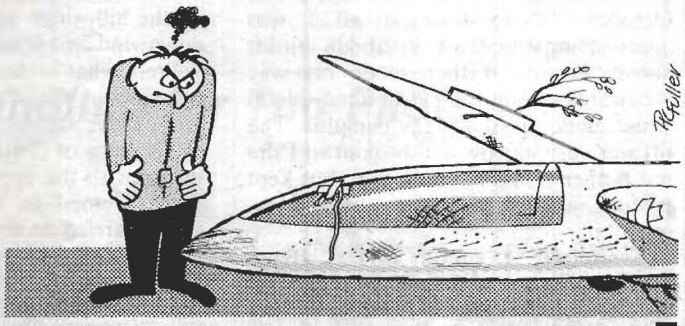
In the 1930s they had other, less subtle ways of reducing the propensity to breed, *viz* the heavy landing in an unsprung primary; the very thought of which brings tears to the eyes. A London Club member was deprived of one of the essential parts in just such a prang (the word *prang* is pure onomatopoeia — the sound of flying wires and landing wires parting company under protest) but a year later fathered a child and went around boasting that he could still fire on one cylinder. I bet he didn't fly primaries again, though.



Legendary aversion of glider pilots to parenthood

Nostalgia Corner (Again)

When I went solo at the age of 15 I had to sit on a sandbag which did double duty: it put the C of G in the right place and also helped me to see over the nose of the glider. Oh for a return to the open cockpit and the fresh breeze on one's brow! Or on one's ear, if you flew like me. The instrument I'm still addicted to is the yawstring which is the next best thing to a faceful, or earful of wind. However, my partner hates yawstrings; they don't have them on 737s for some reason, so he rips it off everytime he flies and I stick it back on again every time I fly. You can easily tell who flew the glider last — as if you couldn't already guess from the leaves, rooftiles etc wedged in the u/c doors . . .



BGA MAIL ORDER

There once was a knight called Sir G
who flew to great height for Gold C
while celebrating with Guinevere
on his trace he spilt beer
and now he's strictly T.T.



All of which has absolutely nothing to do with the BGA Shop but you have to use up odd pieces of artwork lying around! Ask for our latest price list which includes Happy to Fly by Ann Welch (£10.95), Aircraft Inspection and Repair (£9.70), Gliders and Sailplanes of the World by Michael Hardy (£7.45), Going Solo by Derek Piggott (£4.25) and countless other gliding books and accessories. And don't forget the VHS video cassette 'Gliding' available from us at £29.90.

Order these items from

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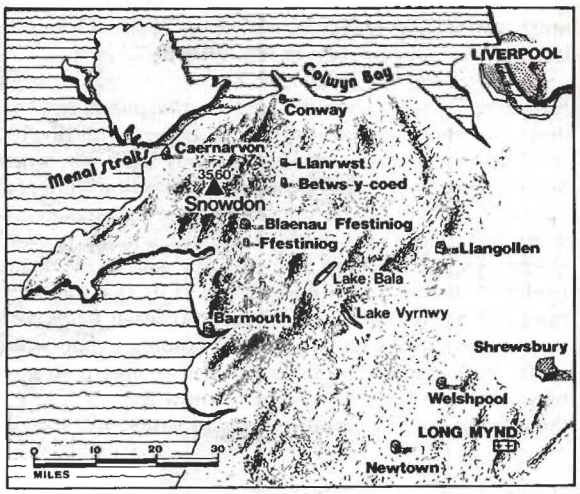
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OVER WALES IN WAVE

BOB SHARMAN describes an October flight in a Libelle from a bungy launch at the Long Mynd which took him to North Wales with a glimpse of Snowdon.



The bungy launch was all over in a blink of an eye. With a quick turn left into the ridge lift, it was climb all the way to the end of the hill and back again. It really is a most gentlemanly way to launch. By the time I was over the bungy point once again I was already at 1000ft and looking for thermals. A few S turns at first, then out over the valley to circle properly in the fairly broken thermals of late October. In no time at all I was approaching cloudbase at about 2000ft above the site. I then made my way westwards along an ill-defined cloud street made up of scraggy cumulus. The lift was very narrow and broken so I did not bother trying to circle in it, but kept pushing into wind, winning a bit and losing a bit.

Eventually I found myself flying through tenuous strands of cloud and the air was quite turbulent. Looking further west I could see the unmistakable downwind side of wave induced cumulus lying across the wind. This was the first real evidence of any wave, although we had suspected it before starting to launch. By this time there was more up than down and I kept on pressing forward until I emerged into the clear air in front of the cloud. I was climbing at a good rate and the air was becoming very smooth. No mistaking it now, I was into the wave proper.

"Just keep heading into wind", I told myself, "don't be distracted"! Soon I was climbing clear of the cloud and watching it form continuously in the same place, just below me. Ahead was still the leeward side of the next wave, so it was quite easy to see how the system was aligned. My senses were trying to tell me that I was standing still and it was the clouds and the ground that were dropping away from me. The sky was the purest blue and the clouds below perfectly white. These are the moments I live for — one has to experience it to appreciate it because it cannot be given true justice in words.

This first climb took me 10 000ft above the Mynd. The Foka 5, which was on the same expedition as myself from Enstone, was a few thousand feet below.

The lift turned to sink very suddenly and what I always say in a situation like this is "When in doubt go into wind, fast". This is what I did and after losing 2 or 3000ft I was again climbing. A quick call to the Foka 5 found him back on the hill, ridge soaring. He had turned downwind and found even more sink!

Well, what to do now? The cloud tops were about 6000ft asl and it was perfectly clear above. There was about five or six octas of cloud with the wave making gaps in the appropriate places. Also there seemed to be a streeting effect which carried on through the gaps and at times rather confused the overall picture. I decided to go north to start with and south of Oswestry I climbed from 8000ft to 13 000ft — the highest point of the flight. I estimated the WNW wind to be about 40kt. Setting off westward this time, I could see Lake Vyrnwy through a distant gap.

Calm and Serene

Flying at about 70kt, it took a fair while to get there against the strong headwind but when I did it was marvellous to sit in the wave and look down through the gap at such beautiful countryside. I could see the white horses breaking out on the surface of the lake which was the only clue to conditions down below. Everything else looked so calm and serene. The only other movement was from my altimeter which was showing a steady climb of 300 or 400ft/min.

I called base to give my position. Someone inquired whether I could see Snowdon but there was too much cloud. However, it did set me thinking. There was still plenty of day left, no sign of any change in the weather and I had maps for the whole of North Wales. Right, that's what I would do, wander up towards Snowdon and see if I could snatch a glimpse of the peak itself through a gap in the clouds. Much better to have a goal than to wander around the sky aimlessly.

The decision having been made, I picked my way very cautiously from wave gap to wave gap, not in a direct line but always to a gap that I could see was definitely giving lift. From Lake Vyrnwy to Bala from Bala to Ffestiniog, each time stopping to climb back up to about 10 000ft and each time finding my exact location on the map before pressing on to the next good looking gap. Ten minutes here, fifteen minutes there, I was in no particular hurry. Plenty of time to enjoy the glorious sights from my lofty perch and to take photographs of this other world.

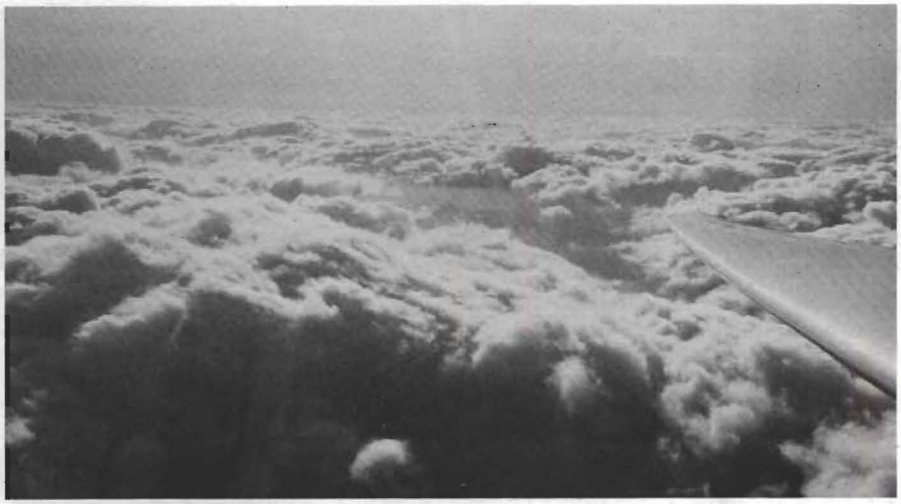
At one point I could see Barmouth not very far off — at least it didn't look very far off from this comfortable height. The sun was keeping my top half warm and my Moonboots were keeping my feet very snug. This makes all the difference when flying in wave for any length of time. The only slight discomfort was from a bit of a lump in my parachute which had been recently repacked. Still, I could easily put up with that in exchange for this beautiful panorama which was continuously unfolding.

I carried on westwards and northwards, battling into the 40kt headwinds at up to VNE when going through the heavy sink. Sometimes I would be almost down to the cloud tops before easing up into the lift again. One of the most exhilarating experiences is to arrive at the next wave just at the crest of the cloud, then to slide down its slope only just clear of cloud until the forward edge is reached. At this point the glider is pulled up once again into the smooth lift. I'm sure it beats skiing and it's probably a lot safer too!

I had reached a point some way

downwind of Snowdonia, giving good lift. However, looking westwards I could not see another definite wave gap and not wanting to tempt providence too far, in view of the inhospitable countryside below cloud, I opted to carry on virtually northwards where I could see a good gap towards the coast. When I eventually got there I was north of Betws-y-coed over Llanrwst and could see Conway and Colwyn Bay to the north and was able to make out part of the Menai Straits to the west.

The thought suddenly struck me that there were 100km of mountainous and unfriendly countryside between myself and home. Since this particular wave was not taking me back up to my usual 10 000ft and there was less than two hours' of daylight left, I thought it prudent to start back. Turning south-east I was now travelling almost downwind. I missed the first wave and carried on to the next. Then looking towards the general direction of Snowdonia on my right wingtip, unexpectedly, there it was. Albeit not very close and framed by a distant wave gap, it nevertheless made my day. Snatching my camera I was able to get in a quick shot before it disappeared behind the clouds.



Bob took this shot of Snowdon through the gap.

At first I tended to get a little disorientated on my homeward leg, mainly due to the strong winds at this height. But the journey back seemed to take no time at all and I was able to fly at over 100kt all the way back from Lake Vyrnwy. Together with the tailwind component, this gave me a phenomenal ground speed. Arriving back in front of the Mynd at about cloudbase the wave was now moving back towards the ridge and a few of the gliders were making their way slowly out towards the leading edge of the cloud. I was able to mark the best lift for them and we all climbed together in the gathering dusk to about 7000ft. At this point we had to literally call it a day and dash back over the top of the wave cloud to land. A wonderful end to a truly exhilarating day of wave soaring.

(Continued from p56.)

some 30 years, during the last six of which she was BGA Treasurer. There can have been few in recent years who have contributed so much to the BGA. During the year Keith Mansell took over the reins of treasurership.

Two further retirements from the Executive Committee after extensive service, are now imminent: they are Frank Irving and Vic Carr. Frank chaired the Technical Committee for 20 years and Vic led the instructors for four years. As I have said before, the movement is dependent on the enthusiastic voluntary efforts of many such people, whether for shorter or longer periods. We should be grateful to them all.

(Continued from p57.)

undercarriage lever instead of the airbrakes.

A Kestrel 19 pilot took a winch launch with an aileron disconnected. He was killed.

Now this season is underway safeguard yourself and your glider by

(a) Obtaining a check flight if you are not current or if the conditions look difficult.

(b) Prepare your glider before the big day and double check its rigging.

(c) Until you have regained familiarity with the glider and its control layout, check to see which control you are operating visually.

Play safe and enjoy the end of the season as well as the beginning.

Engine handling for Tug Pilots

BILL BOWKER

Avoiding sudden extremes of temperature is important for our comfort and well-being. The same applies to the Lycoming or Continental engine on the front of your glider tug.

The parallel goes further. An engine, like a person, in a reasonably good state of repair benefits from hard work and exercise, burning off excess carbon and cleaning out the tubes.

The secret is to work up gradually. Jump out of bed and run for five miles without warming up and you may well be in need of early treatment. Better do a careful pre-flight inspection, start up in plenty of time and (like an athlete) warm up for a few minutes on the chocks before taking off. A cylinder head likes to heat up gradually being constructed of dissimilar metals with varying coefficients of expansion (valve seats and guides) or it will crack expensively, so make throttle movements smoothly as you taxi out and accelerate off the startline.

During the climb keep your speed as high as the glider pilot will tolerate to assist engine cooling, and keep an eye on the gauges. High temperature can result from an oil cooler matrix full of flies or badly fitting cooling baffles and cowlings. Also check calibration of gauges.

You will have observed from the privileged position of the TV camera how athletes (to keep the comparison going) keep on running after the finish. They are cooling their cylinder heads gradually to stop them cracking. Do the same. Keep some power on all the way down even if it takes a little longer to get back.

Finally, after landing, and before switching off sit quietly and reflect for a couple of minutes at tick-over to stabilise the temperatures.

Believe me, it pays.

JSW SOARING

You've probably got a JSW CALCULATOR but do you know how to use it when the chips are down? If you or your friends have a ZX81(16K) home computer I've got just the Training Package for you!
Just £5 for two programmes (GroundSchool and Flying) and a generous 40% discount on any CALCULATOR to go with it!
PLUS . . . Calculators . . . . . £5.50 and £9
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What Do Women Think About Themselves and Gliding?

TRISH WATSON conducted an unofficial survey and here are her findings.

Surprisingly few gliding females would seem to be supporters of the Women's Liberation Movement; only 17 of us would like to see an end to women's records and awards now, while only eight would go the whole hog and throw out everything which distinguishes us from our equals, the men; and one person would also do away with the use of female Christian names which at present emphasises separateness.

The majority of us have somewhat muddled feminist ideas and attitudes. Basically we want equality (we know we can glide equally with men and physical strength is not a factor) but as yet we are very unequal in numbers participating. There are fewer than 250 women to 9500 men in the UK — can this be why we don't throw up a National winner too often? But more of that later . . .

Two hundred and fifty questionnaires were sent out, mostly *via* club secretaries to whom I am most grateful for their help, and 72 women made returns of the questionnaire. And here I must thank all of you who did so for being so co-operative in letting me know your views.

This survey came about because I wanted to know if other women also thought it a good idea to have a change in the rules for the California in England cup from "for the longest flight by a woman" to "for the longest handicapped distance flight by a woman." Sixty-three out of the 72 agreed with this suggestion so a proposal has been put to the BGA Competitions Committee so that the rules be changed in this respect.

No cup for women

Of the nine who did not agree to handicapping, two said they were biased because they had hot ships(!) and seven abstained as they felt strongly that there should be no cup for women in the first place.

With regard to the terms of the competition, the rules have been to date that the normal requirements for a badge claim must be met. I can see the need for pre-declared TPs in order that photographic evidence in the correct sector can occur, but I should like the terms for the California in England cup to be broadened to allow a choice when airborne of several pre-declared tasks. One would then make better use of a day by flying in the best weather conditions rather than having to abandon the day's task because it was the wrong one as it turned out. So often one's enjoyment of a flight evaporates as soon as a task is abandoned and the risk of an outlanding suddenly seems stupid, so you bumble back to base and quite possibly miss hours of good soaring to be had if you had only changed direction. Switching tasks would keep incentive alive, and this might even result in an increase in the number of claims for the cup.



. . . throw out everything.



. . . lesser achievements.

The handicapping would of course open the competition to the pilots of low performance gliders too, and should encourage novices to have a go. No longer would the cup be won on a failed (or achieved) 500km, which was a point raised by a member of Herefordshire GC.

Now back to our views on women's records. Of the 17 who would like them stopped now, two declared they only want a record if it is one for "allcomers". Bravo! the right attitude I think. Many of us hope that women's records will eventually become obsolete.

But it is my personal view that until the numbers of women who glide more nearly equals those of the men, the fact that female names appear in print even for lesser achievements is proof of our existence in the gliding scene. But women really know that by accepting commendation for what might be lesser achievements than an allcomers record they are perpetuating the attitude some have that women are inferior to men in gliding, which is not true.

The point was underlined by a well known female pilot of Enstone GC who states "Don't put us down by giving us separate second class awards and by spelling out our Christian names in S&G". But has she considered that if Christian names go, women might just sink without trace? And it could be that sometime in the future facts about women are needed, for instance in order to perhaps help them to get a grant, and what would we do then? But I do get your point, Enstone member — equality must be seen from all angles, and the sooner it happens the better. The BGA could, of course, start using Christian names of both men and women in the records.

Many reasons why so few women glide have come to light in this survey. It seems that although more and more females now start gliding than ever before, a large number give it up at the Silver C stage, and probably do so for one or all of the following reasons which will be discussed further: finance; domestic pressures; the female psyche; the female physique and, lastly, the traditional role of women.

These problems, other than the first, are unique to women and come in addition to the other factors which go against gliding for both sexes. These common factors, apart from finance, are: first, the amount of time needed to be spent on the airfield; secondly the frustrations caused by waiting for club gliders, instructors and the weather; thirdly the self-denial of a wide social scene; and fourthly the apprehension of breaking a glider and thereby letting other people down.

So without drive, perseverance and

some aptitude neither sex will go far, even with money. And the lack of money is no doubt the greatest hindrance to any gliding enthusiast — and it is in this area that women are on the whole at a disadvantage.

But ladies take heart for equality must surely come sooner or later! We have a woman as Prime Minister and now this year for the first time ever a woman Lord Mayor of London. When we come out of this recession we will surely get a better deal than ever before thanks to the greatly improved educational opportunities for women in the last 15 years.

If you *must* have rapid results, hook yourself a potentially wealthy gliding addict — but beware he is not just on the look-out for a permanent crew! Get your terms spelled out before it's too late . . . Joking apart, a gliding partnership combined with marriage can be a very happy thing. Ben and I and others have proved it. This brings me to female's next problem, that of domestic pressures conflicting with gliding.

The responsibility of children weighs heavily upon gliding mums, most of whom are in no frame of mind to fly, being worn out and distracted by the patter of tiny feet, even if the family resources could afford the flying fees. But girls, believe you me it is well worth all the effort needed to overcome these problems (husbands must be very supportive), for the hard times will get easier eventually and if you have kept on flying you will not deny yourself the pleasures of cross-country flying which to some is the elixir of life!

If you stop flying temporarily you lose your nerve, you give in to those over-protective maternal instincts and then you've really had it. It is best to learn to glide when you are young, and keep it going. Practice means safety.

Now the adrenal glands produce two almost alike but not quite similar acting hormones called adrenalin and nor-adrenalin. Both cause increase in heart rate and blood pressure, but adrenalin is also responsible for the rapid release of glucose etc into the bloodstream as part of the "flight, fright or fight" reaction to danger confronting an animal. When humans are doing stimulating things only nor-adrenalin is produced and the resulting feelings are of pleasurable excitement, *ie* what we get a lot of while gliding.

Pilots have not only to enjoy these pleasurable effects of nor-adrenalin in their system, but must also be able to cope with the extreme effects of adrenalin which can cause panic when danger looms. It isn't every woman's (or man's for that matter) idea of fun to have to cope with a surge of adrenalin or to have to make quick decisions that could lead to one's rapid extinction. Fortunately you can choose how competitive you want to be in gliding.

Many women state that they are not at all competitive — let others win the records and competitions and push themselves. Not me.

Some members of Shalbourne GC upon receiving the questionnaire had a heated discussion on the topic that the gentler sex being less aggressive than the male, if therefore more craven, takes fewer risks and therefore is less accident prone! Immediately to my mind springs the memory of five prangs caused by women and considering our few numbers the statistics might well show women up rather unfavourably. (Perhaps Bill Scull would like to comment on this one in a future issue?)

I have a feeling that accident proneness in cars correlates somehow with prang worthiness in gliders — should we consider our driving record before stepping into a cockpit? Perhaps one's best friend could help by telling one truthfully if they think one handles a car safely and confidently.

Sadly women are generally considered to be worse drivers than men and the reason for this could be explained by my next consideration, that of "female physique" as opposed to "female psyche". I am taking the word physique to include our internal conformation and physiology.

It has not previously been appreciated by all men or women to what extent the



. . . responsibility of children.



. . . lessened emotional control.

menstrual cycle can affect women. A book recently written by Dr Caroline Shreeve called **The Premenstrual Syndrome** (published by Thorsens) spells it all out, and I hastily add that she claims there is at last a cure which is simple and safe, which should bring relief to many thousands.

Every woman feels below par, and some are indeed in real pain for a day or two at the onset of a period, but this is not what Dr Shreeve terms The Premenstrual Syndrome and it has its own remedies. The premenstrual syndrome is one or more of an astonishingly long list of both physical and psychological symptoms which occur on a cyclical basis, varying in the individual and lasting from two up to 14 days before a period starts.

Hormone imbalance

Mostly, women begin having these symptoms only after giving birth to two or more children and the cause is due to a certain failure in metabolism, to do with "essential fatty acids." The new cure is the inclusion in the diet of two products which are "cofactors" in the metabolic process, which once righted causes the correct reproductive hormone balance. The imbalance of the hormones is what causes the premenstrual syndrome.

But how the syndrome affects women in connection with gliding or car driving is this: the physical symptoms can include headaches (migraines can increase), painful eyes, nasal stuffiness, diminished co-ordination, lessened exercise tolerance and retention of fluid in the tissues which is uncomfortable: not quite the best fitness for someone faced with a day's gliding. But most women just grin and bear it as there has been little remedy to date.

On top of these physical symptoms are psychological ones — irritability, lack of self-confidence, poor concentration and memory, lessened emotional control, or even a tendency to aggressiveness! (Are we fit to fly at all?) But we don't all suffer all these symptoms all the time, and those who do no doubt feel safer staying on the ground. The kicks to be enjoyed from nor-adrenalin can be had through less dangerous pursuits such as creativity or exercise.

The other problem arising from women's physique is that of in-flight peeing. Knowing several women who wear nappies rather than miss the joys of gliding, I can recommend the alternative of products designed for the handicapped incontinent. "Kanga" is a system known to me to be satisfactory for some elderly incontinent people I have dealt with. The pad is not really noticeable even when worn with trousers and the

pants have a minimum of plastic for greater comfort and are cleverly designed. Contact Kanga Hospital Products Ltd, PO Box 39, Bentick St, Bolton for information and nearest stockists.

For some women control of fluid intake is enough to overcome the pee problem. Do experiment what effect and timing different drinks such as tea, coffee, fruit juice, water, alcohol etc have on you, especially in the daytime. Some people recommend frequent sips of plain water during a day's flying, others no alcohol the previous night etc. Find your own tolerances. I find coffee a noticeable diuretic and although this may seem a contradiction, I always drink a cup or two at breakfast even on the day I fly. Then in the following two hours or so I need to urinate often. If I do so immediately before take off (however inconvenient it is to dash behind a trailer or car!) this is enough to prevent me having discomfort on flights of up to seven hours. (I must be a fairy!) However do realise that we all vary on these things. Fear and cold can make the problem uncontrollable in flight. On long wave flights even I propose to wear "Kanga" in future.

Lastly a word about the traditional role of women. We must all work hard to gradually change people's attitudes (ourselves included) so that more domestic equality occurs, particularly in the partnership's leisure time. We must start in our own families and bring up our children to accept that women have a right to be considered as themselves and not as mere home-makers and scullery maids. Boys who always rely on mum (or sister) to do all their chores will only perpetuate that attitude into the next generation.

I think that young men living in the parental home should do their own clothes washing and cooking (if only from time to time) and young boys and girls should tackle exactly the same chores around the house and garden. Sexist ideas are absorbed by the very young because of the traditional views that females must do "women's things" and males must copy dad by seeing to the mechanical things or just sitting back watching the women at the sink! This must be guarded against. Thank goodness girls are getting a better deal in education nowadays. Even so they still need a lot of parental encouragement to overcome out-dated attitudes about education and jobs for women.

So let us women be very aware of these things and start the good work in our own homes. The male is quite as capable as the female at home-making and child minding. He just pretends he isn't!

Some people have criticised me for my poorly worded questionnaire — *touche!* It's shortcomings were happily offset by the large space left for people's own views and these made very interesting reading indeed. I only hope those views have been clearly expressed in this article.

* * * *

In conclusion my findings on what women think about themselves and gliding can be summarised thus: first women don't want to be looked upon as separate from men, or to be treated differently from men in gliding: secondly more women who have tried gliding would do more of it and achieve more if they had the cash; thirdly more women would glide cross-country if they could to their satisfaction overcome the pee problem (which, in fact, is easily overcome by the non-squeamish) and lastly fewer women than men want to glide because either women's nature and/or the traditional role of women and/or women's physique and reproductive systems put restrictions on them. If Dr Shreeve's new cure for pre-menstrual syndrome is effective and becomes universal many more women may feel strong enough to take up this exciting sport.

Humans have a way of getting to do the things they really want to do!

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A DREAM COME TRUE

GORDON CAMP gives the background and hopes of the Oxfordshire Sportflying Club at Enstone Airfield. A member of the BGA, it specialises in motor gliding with a seven day week operation. They use two Grob 109 two-seater glass-fibre motor gliders and students are trained for their PPL in the self-launching motor glider category (PPL SLMG). The instruction includes gliding techniques and the club specialises in the conversion to power flying of Bronze and Silver badge pilots for whom there are considerable concessions in meeting PPL requirements.



Gordon flying the Grob 109. Photo: Air Portraits.

Considering it is now a well-established feature of the sporting aviation scene, it is surprising the club was founded less than three years ago. It first took to the air in Dublin, of all places, where we bought a Scheibe SF-28 Tandem-Falke which I apprehensively flew back to Enstone across the Irish Sea on a cold November day. On crossing the Irish coast this aircraft had flown less than two hours in the previous two years and although I climbed to 7000ft to give a fair chance of reaching land or a ship in the event of engine failure, the 70 miles sea crossing represented the longest 50 minutes of my life!

Glider pilots converted

This Tandem-Falke immediately proved that the demand existed for flying motor gliders in their own right, and I soon found myself instructing full-time, later to be assisted most enthusiastically by the late John Downes throughout the spring of 1982. We converted a large number of glider pilots to PPL SLMG and introduced several beginners to the philosophy that gliding is the most pleasurable form of private flying. Indeed my very first *ab-initio* student, Peter Kinch, trained to solo standard on the Tandem-Falke, then joined the Swindon GC where he now flies his own K-6E. Another student, Peter Hall, is now my syndicate partner in a DG-100 at Aston Down. This illustrates the value of motor gliders in introducing people to the sport of pure gliding, irrespective of the versatility of powered gliders as soaring aircraft.

The Tandem-Falke was a most pleasant aircraft to fly, and with its slow thermalling speed of 40kt would, engine off, outclimb many pure gliders. More significantly it was often reaching lift beyond the grasp of local gliders unwilling to risk landing out. Unfortunately the Falke series of motor gliders are not really robust enough for intensive club operations and so, discounting the Motor Janus which would not be appropriate for basic training, attention was directed towards the only other type in production at the time — Grob's elegant G109.

At this time, mid summer 1982, I met Ted Ayling, an ATC gliding instructor and SHK owner, who had independently come to share my belief in a promising future for powered gliders, and actually had a G109 ready for delivery. Within three weeks of our first contact we had formed a new partnership, Oxfordshire Sportflying Ltd, and as proprietors of the club were on an airliner to Munich to fetch the Grob 109. Our successful 600 mile delivery flight back to England revealed that we had an aircraft which exceeded our expectations in every respect, and as a touring aircraft must rank as the nicest two-seater in the world.

On August 1, 1982 we started using the Grob 109, supplemented by Phil Levi's Super-Falke and with Ted Ayling and myself as full-time instructors. As a measure of how busy we became, the Grob 109 G-BJZX exceeded 1000hrs flying before its first birthday — a level of utilisation approaching airliner proportions! We bought a second Grob 109, G-BKNJ in May 1983 and although the Super-Falke has departed, Soaring Oxford's demonstrator G-GROB has at times supplemented our fleet.

Pure gliding sensations

It is an extremely good training aircraft, easy to fly but demanding finesse. Given a wide thermal it will soar well too, as many enjoyable soaring flights testify. At many other times, a reduced power setting has been adopted to simulate typical Standard Class performance and in this configuration all the sensations, excitement and frustrations of the pure glider really are experienced. However, to establish an effective programme of cross-country soaring training, it is the club's intention to have as soon as possible a high performance self-launching two-seater, such as a Motor Janus or the DG-500. Privately owned self-launching sailplanes are also welcome at Enstone and John Hadley's PIK 20E, which joined us in this context, is regularly contacting wave lift over the Cotswolds for the price of a gallon of petrol when the traditional glider would need a £25 aerotow.

Our aim is to promote the concept of motor gliders as economical multi-purpose recreational aircraft, with soaring as the ultimate enjoyment, but not rejecting the opportunity that on-board power provides. We do not see ourselves as direct competition to conventional flying clubs or to traditional gliding clubs. Indeed we have been very complementary to local gliding sites. Not only do we provide the opportunity for valuable field-landing and cross-country navigation practice, but most of our regular members belong to gliding clubs and we are proud to have enabled them to become much safer and more proficient through learning the techniques and disciplines of powered flying.

After its initial rapid emergence onto the flying scene, the club is still steadily expanding, and although I have stood down from full-time instructing and handed over as CFI to Ted, Bobbie Ford has joined us as secretary and David Fitt as chief engineer, both full-time.

I believe motor gliders will predominate by the turn of the century as engine development continues and aerodynamic and structural improvements evolve. There will be many problems to overcome on the way; notably some rationalisation of regulations is required so that motor gliding is able to enjoy, at least for solo flying, some of the concessions on medicals and licences justifiably held by the gliding movement over the years (and latterly by microlight fliers). Wire launching and even aerotowing of motorless sailplanes may become as rare and generally impracticable as bungy launching has become today. Above all, self-launching will create *more* soaring opportunities and the corresponding greater utilisation will reduce the cost of soaring for the glider pilots of the twenty-first century. Meanwhile at Enstone the Oxfordshire Sportflying Club is fulfilling a creative role in this process of evolution.

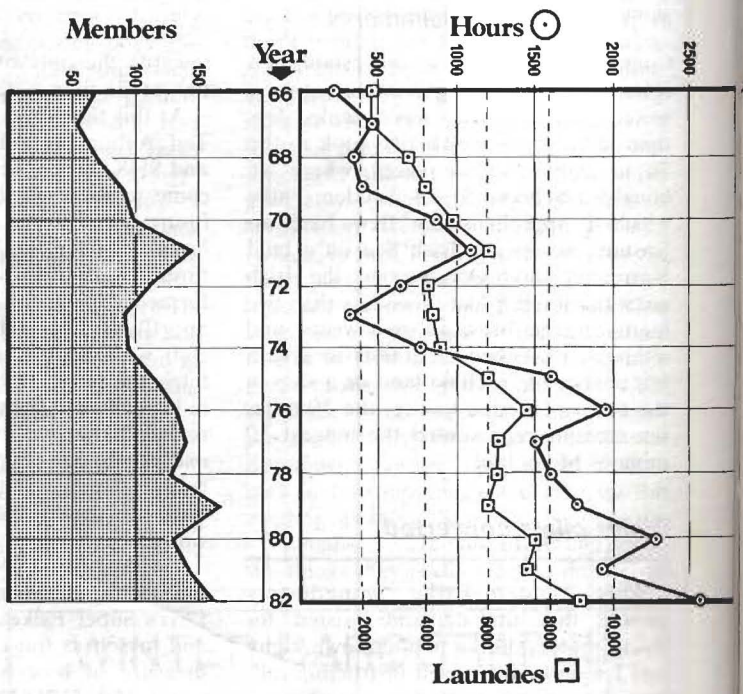
CLUB DEVELOPMENT AND PERFORMANCE

An assessment based on BGA Annual Statistics

There is more to good club management than might be apparent from the annual statistics: here BILL SCULL, BGA director of operations, endeavours to form a picture from the limited data available while JOHN HOLLAND, chairman of the BGA Development Committee and a past chairman of Cotswold GC, fills out the basic details. The message they are jointly trying to get across is "Where is gliding going?" and for that matter *your* club.

The Cotswold GC

Year	Flying			Gliders			
	Launches	Hrs	Km	Club		PO	Members
				2S	1S		
1966	2320	216	85	2	1	–	69
1967	2172	442	78	1	1	3	54
1968	3317	370	1120	2	2	5	68
1969	4026	398	2080	2	2	5	90
1970	4796	868	3800	3	2	5	98
1971	6120	1100	3500	2	2	5	140
1972	4069	672	1000	3	2	8	110
1973	4184	316	1300	3	2	8	91
1974	4711	775	1426	3	1	8	96
1975	6106	1613	10 282	4	2	9	111
1976	7021	1954	12 849	4	2	11	133
1977	6267	1465	11 204	3	2	6	137
1978	6272	1558	6000	3	2	16	133
1979	5996	1737	9125	4	3	16	162
1980	7495	2325	9070	4	1	22	133
1981	7146	1904	9989	3	2	22	145
1982	8939	2529	13 782	3	2	25	160



In the course of its short history this club has shown a steady growth rate with the exception of a membership bulge in 1971/72. That it is financially sound is measured by the purchase of its site in 1981 at a net cost of £106 000 (see S&G, August issue, p160) but let's see if anything can be established by analysis of the annual statistics:

Quality of flying — comparison with the national average
(Reference "Where is Gliding Going?")

Year	1966	1971	1976	1981
Club	5.6	10.8	16.7	16.0
National	10.9	14.4	18.6	24.1
Launch rate				
Club	33.6	43.7	52.8	49.3
National	40.3	40.2	42.2	39.1

In looking at the improvement in average flight time it must be borne in mind that the club does not have aerotow (only auto reverse pulley). The launches per member has been 20-25% better than the national average, although due allowance must be made for air experience activity.

The membership trend is an unsteady increase (see Fig 1) with two bulges (1971 and 1979) which, interestingly, are matched by corresponding bulges in the launches and hours suggesting that the launch operation is efficient enough to cope with the increased membership. On a humorous note one of these bulges was due to the club management of the time thinking of a number and the following year deciding it had to be a higher figure!

The club has moved up the league table of size to be placed 19th (1981) in terms of membership and 8th by launches (1982), (excluding RAFGSA clubs).

John Holland says:

The key to the statistical analysis of the Cotswold Club annual returns is, perhaps, best explained by looking into the history of the club. The early days of its formation saw it dominated by a CFI who's natural ability as an instructor was complemented by an enthusiasm and ebullience that affected everyone within the club. With Roger Bunker at the helm members believed, almost from the beginning, that it was something special. With this background the early committees gave more thought than is perhaps usual, to the continuing development of the club.

The most influential decision taken at this time was that of actively pursuing a policy aimed at the purchase of a site. The acceptance of this enormous task brought with it strategies for the future that have been followed ever since.

The first requirements was a need to generate cash and a healthy surplus that could begin the airfield fund. Examination of ways to earn money showed that launching gliders was almost the only normal club activity to generate income and development and improvement of the launching methods was therefore the number one priority.

Various technical members (ground) contributed to this work and work was done on cable knotting systems, towcars and pulley design for the reverse pulley system in use on the Aston Down runways. The end of this phase found the club operating

with diesel towcars, using automatic gearboxes and strain gauges, showing the launching driver the load on the cable at all times. The earlier pulley design had been replaced by a single pulley rotating on a system of gymbals to ensure that the axis of the pulley was always in correct alignment with the cable. A very considerable increase in the launch rate followed accompanied by a drop in cable consumption and fuel bills.

With the club producing around 100 launches per day fairly consistently there was an immediate requirement for more members to use the facility (and pay launch fees!). Recruitment meant publicity and advertisements were put in local papers and libraries. Articles produced after entertaining the press and after a series of VIP evenings have very good coverage and stands were manned at local air displays and a number of publicity events, in conjunction with the Cheltenham Cobalt Cancer Unit, were held.

Further fund raising came from a heavy programme of passenger flying and open days have become a local event. Many companies in the area have been persuaded to hold evening gliding parties at the club as well as advertisements being put on their sports club boards inviting anyone to come and have an air experience flight. Apart from raising money directly these efforts also contributed in the drive for new members.

Financial control of all this effort was essential to ensure that it was achieving its purpose and to monitor the effectiveness of all the projects underway. Launches per aircraft, costs per launch, earnings per aircraft, cable costs and life and many other statistics mean that launch fees and soaring fees and subscription charges can all be reviewed regularly from correct financial information. The contribution of one of the members who, as a chartered accountant, was able to organise and produce these figures has been immense. The importance of the club's view to this financial control is shown by the fact that the treasurer usually has three other helpers to assist in his tasks.

Targets been exceeded

The results of this effort show in the statistics as a steady expansion and financial targets have generally been exceeded. The airfield has been purchased at the conclusion of all the deals. Two interesting side effects of this commercial approach are apparent and require emphasis.

1. If a correct commercial approach is taken in the organisation and running of a club, profit can be made whilst at the same time reducing costs through efficient financial control. The Cotswold launch fees and subscription remain amongst the more modest of the country's gliding clubs.
2. A target set and worked for provides a focus for the whole club and is a very strong and unifying force.

It is difficult to see how club efficiency can be quantified on a simple statistical basis. It must be for the chairman and his committee to review all of the club's operation and attempt to produce a balanced whole. The Cotswold Club have always tried to produce value for money with an efficient launching system so that new members can be fed in at the bottom *via* a heavy *ab-initio* training programme and established members can be flung into the air to indulge their own particular fancies.

After a few indulgences in various aircraft (such as Astir single-seaters) the general policy is to maintain K-7 training aircraft, since the K-7 is very similar in performance to the K-13 at a fraction of the cost, and K-8 single-seater aircraft because they cover a very wide spectrum of pilot abilities and have been proved to be the only single-seater to earn a profit. It is difficult to hold this practice within the club since ambitions towards exotic aircraft surface from time to time. However, so far as possible the committee try to quell such movements when they arise!

Move to private ownership

It has now become fairly common practice for a new member to go solo in his first season and to complete his Silver C in the second. As with the movement in general there has been a big move to private ownership and cross-country flying with active participation in competitions by a number of members.

Although the airfield purchases have now been completed the habits of the last few years have been continued. Development work on towcars has meant that two new towcars have been produced in the last year featuring American high powered pick-up trucks burning propane fuel and still utilising the strain gauge technique. These have proved highly successful with the glass-fibre gliders that now abound. Work is also underway with a new, even larger diameter pulley in an attempt to reduce the work hardening of launch cables. Talks are revolving around further attempts to use parafil with the reverse pulley.

Recent examination of financial figures has produced the theory that soaring fees produce low revenue in relation to the administrative effort involved and so experiments are under way utilising tickets (all other payments at a premium price) for 20 minute increments of flying and soaring fees have been abandoned. However there are some signs that a new atmosphere is taking over now that the main target has been achieved.

The new membership takes for granted the hard won facilities. The old hard core of workers are now tired and just want to be left alone to get on with their soaring. Politics rears its head from time to time. It is not so easy to get things done or to get people to do them. The next phase will be interesting but perhaps we can take confidence from the fact that these problems are already being discussed.

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Are we giving people what they want?

PAUL WILLIAMS gives his opinions on "the future of gliding" having read the article in the December issue, p267.

In the past decade airsports have experienced a considerable expansion and much of their success is due to the broad spectrum of equipment that has evolved to suit all pockets. The mushroom growth of hang gliding and microlights revealed this huge latest demand for flight and proved the point that low performance is quite acceptable to those with limited resources.

Gliding, alone amongst the airsports, has seen no expansion and far from trying to provide a variety of equipment, it has continued its apparently inexorable polarisation towards the speed optimised racing sailplane. Ultimately this trend would give us a gliding movement filled with inherently expensive competition sailplanes which only the relatively well-off could afford. The young blood we so desperately need to keep our sport healthy would be forced out, as would Mr Average with his family commitments. So perhaps we've got it slightly wrong somewhere.

The glass ship has been a hugh success but we have allowed its unprecedented performance to blind us from seeing that not everyone can afford them. The needs of the have-nots, some 60% of existing pilots, are being ignored. A brief look at our history clearly shows how we unwittingly drifted into this situation.

By the late 1950s, competition sailplanes were becoming even larger and more expensive, so the Standard Class was introduced in an attempt to arrest this trend. At that time manufacturers were still producing small inexpensive gliders for either club use or as first syndicate machines. However, an unforeseen side effect of the Standard Class success was to discourage the production of anything less than 15m span, a trend that was reinforced as manufacturers introduced glass. Today all sailplanes manufactured in Europe are essentially high performance glass (including so called "Club" types) costing £7000 plus and there are no gliders smaller than 15m span — in effect there is no attempt to produce a cheaper sailplane so that the majority of glider pilots are totally dependent on the second-hand market.

Superficially there is nothing wrong with this; certainly in the midst of this recession there are good bargains to be had. Look again! Glass ships do not deteriorate with age as do wooden sailplanes and retain both their performance and value so that second-hand glass doesn't look like dropping below £5-6000. We are effectively dependent on a finite number of wooden gliders, which means that unless someone produces a cheap sailplane the grass roots end of gliding cannot expand significantly due to a lack of aircraft. In practice we are in even deeper trouble — some of the older wooden ships have such a low value that even a modest crash can result in an insurance write-off so that in the long term their numbers will steadily decline. By importing cheap second-hand gliders from France, Germany and the Netherlands we are topping up the UK pool of wooden ships but sooner or later these sources will run dry — what then? The mainstays of the UK wooden fleet, Olympia, K-6 and Skylarks were designed between 25 and 45 years ago! so it's really about time we considered their successors, especially as it takes some considerable time to develop a new type.

A terrific increase in private ownership has also brought problems for the less-wealthy club member. The sheer pressure of numbers has led to more and more clubs considering limiting the number of privately owned machines on site. A few years later as syndicates trade up to glass they have to sell their old, cheap glider off site, consequently the private owner fleet eventually becomes top-heavy with expensive high performance types. The real disaster is that the numbers limit also prevents Mr Average and his friends from establishing a new syndicate based on a cheap sailplane — Catch 22!

An ever-growing number of pilots are likely to become dependent on club single-seaters — a situation aggravated by the fact that there were fewer club single-seaters in 1981 than in 1966 (now 1.9 per site — formerly 2.4 per site).

A prime reason for disillusionment and loss of pilots

As private owners also fly club gliders it can be seen that non-owners have a tough time trying to grab a machine when conditions are soarable — this could be a prime reason for the disillusionment and subsequent loss of early solo pilots.

It's easy to criticise a situation but not so simple to provide a relative solution. Personally I think that some clubs should examine their fleets to see if early solo and non-owner pilots are getting enough flying. How about allocating an aircraft exclusively for their use?

Producing a more balanced range of sailplanes is a much tougher nut to crack — it is essential however that we create a real financial alternative to the glass ship. The possibilities of cutting the cost of a factory built machine, even by discarding flaps, water, retracts and reducing span, are minimal. It seems that only homebuilding from plans or kits will really slash prices. The BGA design competition showed that there was no lack of enthusiasm or ability but seemed a little unrealistic in handing the first two prizes to 15m ships, for there seems little prospect of many people obtaining such large workshops. Like it or not, any widespread homebuilding movement in the UK must be based on the standard 8 × 16ft garage. (OK garages can be extended but this just makes for more expensive gliders).

The question which concerns many designers is how much performance loss people would accept if spans were reduced? Lack of a definition for a new Class is a major handicap to those scheming new projects, especially if they are trying to raise commercial backing. Furthermore, the UK glider market is so small that there is really only room for one small sailplane Class. Unless we reduce wingspans to at least 12m we will not get a significant saving in materials, whilst in European weather conditions, 10m is about the minimum practical for thermal soaring.

The anticipated performance of a modern sailplane varies between an LD of 2 to 2.5/m span therefore 12m offers LD 24 to 30 and 10m 20 to 25. In the past I have advocated the simplicity of a garage built 10m design with a two-piece wing, but concede that the extra performance of 12m would be necessary to meet popular demand. Reducing span doesn't only give performance losses. However higher roll rates and tighter turns can result in better achieved rates of climb in the thermal core, as recently discovered by Chris Wills in the diminutive Hütter 17.

Platypus recently stated — "Little gliders are ideal for doing the derigging and retrieving that you don't have to do if you have a big glider — there is no substitute for span". *(See December issue, p250.)*

My counter quote is "A Swallow is more use than the Nimbus you can't afford".

I suspect that with a small, handy sailplane even more people will fly cross-country because the retrieve problems are so much reduced. The one indisputable fact is that people won't fly if they can't afford a sailplane. So those who are sceptical of homebuilding, just take a look at literally the thousands of different microlights designed in the past few years. Many are being marketed with an engine-off soaring capability — OK so most of them are in the LD 10-15 range but there are some good designs achieving LD 20-25 from 10m span. The popularity of such machines proved the existence of a market — while we have spent the last decade debating the need for cheap machines, others have gone out, done it and prospered, so let's demolish the last hurdle and proclaim the existence of a provisional 12m Class as of today.

Definition. Span — 12m (39.37ft); no component to measure more than 4.8m (15.7ft); retractable undercarriage — permitted; flaps, waterballast — permitted but possibly not allowed in Class competitions (to be agreed) and adequate brakes to be provided.

I hope there will be a brief debate in S&G leading to a meeting where further views can be exchanged and a generally agreed Class definition thrashed out, so that we can then take action.

GETTING OVER THE RIGHT IMAGE



NIKKI CAMPBELL, the newly appointed BGA public relations and publicity officer, introduces herself and outlines her hopes for interesting the media in gliding. She has crewed for her husband Denis at Booker and at Regionals and Nationals, been involved in running competitions on the administrative and press and publicity side, went solo recently and has worked in the Booker GC office. She was a full-time PR and now works as a freelance writer.

Gliders run out of wind!

Top pilots at the 1984 National Gliding Championships yesterday plummeted into fields all over England. None of these daredevil flying aces was hurt. National Champion, Roland Race-Around, when asked "So what happens when you run out of wind?" said . . .

Are you tired of that hoary old chestnut? Is this the kind of public image we want and what good is it doing us? Then let's try and change that kind of publicity and ignorance about gliding. How many people have you spoken to who assume you mean hang gliding when you mention your sport? And are disappointed when it isn't — thinking it's less exciting? Less dangerous possibly, but less exciting? We know differently!

And what about the "Gliding — that's for the rich isn't it?" Well, yes, if you buy yourself an ASW-22 — but how many people are there who enjoy gliding as instructors, flying club gliders or as syndicate partners in gliders both very old and very new? It is possible to glide for less rather than more money, especially if you belong to a club which operates a winch. People can look for — and find — different things in gliding.

It is hardly surprising that with such images predominating in the public mind, gliding doesn't receive much publicity or support from the press and media, especially on a national level.

If we could improve people's awareness and understanding of our sport, think of the benefits — improved relations with farming and local communities; more support and sympathy locally and nationally for airspace disputes, site and noise problems; a healthy flow of new members; more support for fund-raising activities and more likelihood of sponsorship on the local and national scale. And I am sure there are many other advantages I haven't covered.

I believe approaching public relations on a local club level is the most effective way to achieve a gradual improvement of our image whilst at the same time gaining practical and tangible benefits for individual clubs. Who knows, even the national press might be less resistant to giving us more space if they saw gliding receiving wider coverage and interest in the local press. After all they want to sell as many papers as possible and won't waste space on subjects about which very few want to read.

Gliding can never aspire to the coverage of sports like snooker, darts or football — games almost everyone has played at some time, but it can achieve more coverage than at present. We can try to balance the elitest image gliding has with the other side of the coin: schools' schemes, open days, flying days and evenings for Girl Guides, local companies. Young Farmers' Clubs, councillors etc and holiday courses. We can draw young people into the sport in this way — even if a Girl Guide can't afford to take up gliding when she's had an air experience flight, she might when she goes out to work. Even if she doesn't, she'll at least be a more informed member of the public.

Some hours to spend

We can also draw attention to the exciting elements of the sport from a first solo flight to a club cross-country 500km attempt. We can make competitions more interesting places for the press to visit — with gliding and powered aerobatic displays, more on-site displayed information on the competition and its progress; press preview days which could include a flight, a presentation and video on gliding and competition gliding and an opportunity to look at and learn about the most sophisticated gliders.

This is all very well in theory — but how do we go about it? Will it cost a fortune? And anyway, who's got hours and hours to spend on such efforts? Well, I've got some hours, as the BGA's public relations and publicity officer — one day a week to be exact. Obviously in this time I cannot hope to do everything for every club — and anyway who knows your club better than you, the members — but I can try to help you make the most of your individual resources to meet the particular needs of your club.

This might include a few practical tips on how to write and set out a press release/handout if you want to invite a local paper or radio station to a special event — believe it or not correct presentation makes all the difference between your piece of paper being thrown into the bin or receiving an interested phone call. And what do you do with the press when you've got them there? Perhaps you have a special campaign to launch for new members or for finding a new site — perhaps we could talk about it and I could give you some ideas to help it succeed? Or you may be running a competition this year and wish to use the event to attract local publicity.

I am to provide a service for you, the individual clubs, first and foremost. To this end, I have already sent a letter to your club secretary or club public relations contact asking just what sort of help your club would like and setting out the kind of help on offer. So if you haven't seen or heard about it, chase it up! If it has been lost or forgotten (perish the thought!) then write to me or ring me for another copy.

Barry Rolfe, BGA administrator, has already asked you to nominate a club contact for public relations and I've repeated the plea in my letter. This doesn't necessarily need any special experience — just enthusiasm for gliding and the ability to pass this on to other people. Neither need it take up too much time or be too much like hard work. It can be fun. It would help me greatly to have someone to make contact with at each club. Indeed I would very much like to visit as many of you as possible in the future to get to know you and your club.

I hope I've inspired you with some enthusiasm for the idea of public relations — if so, I look forward to hearing from you and meeting you. If not I'd equally like to hear why you don't think it's a good idea. In either case this is where to find me: Nikki Campbell, 29 Beech Avenue, Lane End, Bucks. HP14 3GQ. Tel 0494 881166 (any day and time — within reason!).

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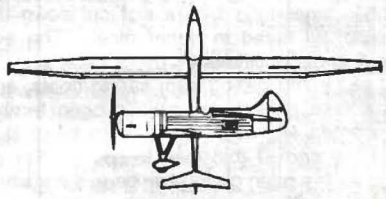
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GEORGE MOFFAT IN NEW ZEALAND

George Moffat, USA World Open Class Champion in 1970 and 1974, spent three months in New Zealand in preparation for Hobbs where he came fourth in the Open Class. He is always good value and by kind permission of *Gliding Kiwi* we print an article they recently published which was edited by John King from talks given during their Nationals when George came sixth, again in the Open Class.

Dave Prankerd did some legwork for me, and compiled some suggestions for me to talk about, including waterballast, C of G adjustment, instrumentation, glider preparation, and contest site familiarisation. That last one I thought I can't talk about, because obviously I haven't been doing very well in the contest and I mustn't have been doing a very good job of preflight familiarisation. The other topics, however, fall into a certain pattern and I thought perhaps I could collectively answer some of them by talking about the Nimbus 3 that I've been flying now since last summer — what we did to it after it arrived, what we did last year, and what we plan to do with it this year.

The owner of this ship is Dick Brant, an old-time airplane fixer-upper, an inventor by trade, with a hangar considerably larger than the new hangar at Drury, absolutely jam packed with machine tools of every description. He's also the only man I know who owns three Open Class gliders. One of the things I learned from him is the use of neoprene skindivers' foam for sealing. It comes in all different thicknesses, starting with about 1/8in, and makes about the best seal that I've encountered, very flexible, impervious to air, and it lasts a long time. Static air always wants to go to the wrong places, so we did all the normal things for sealing, including the inside of the tow release, building a little canopy of foam around it so that no air from inside the fuselage can get out of the hole. It's not so important, I think, to seal the hole itself, although that can be useful, as it is to prevent high-pressure air from inside the fuselage migrating out the hole. It also makes your feet warmer when you're flying in wave.

On the subject of the tow release, you know the little ears that stick down on Schempp-Hirth ships so that you can survive one wheel-up landing on concrete? They grind down beautifully flush in one landing, but that seemed a hard way to do it, so we took them off entirely and made up a pair of 1/8in plates and put them on with flush-head screws. Over all this we put a piece of automobile inner tube with a slot cut down the middle, all faired in rather nicely. The end result is pretty different.

I came into gliding from sailing boats, and as a boat person I've always been terribly concerned with what the bottom looks like, and I've carried that over to gliders. For as long as I've been gliding I've been astonished that most glider pilots never seem to turn their glider upside down and see what it looks like. It's appalling in general, and I can't think why people are so fussy about things they can see on top, if only they'd worry about what's underneath.

If you want to play a joke on somebody and demoralise him completely, just make a little tin towhook or tailskid, or landing gear doors, or a wheel, and tape them on the side of his fuselage. He'll be utterly demoralised, but he doesn't worry a bit with all those things dragging along underneath. If you really want to give yourself a heart attack, just take a look at the bottom of a K-6 — you wouldn't believe it could fly at all with all those things hanging out.

We decided that what we needed was a way to have a movable C of G, and after calculation found we wanted to be able to move 34lb of substance about 153in. The heaviest substance that we could get that would flow readily was mercury, so Dick Brant built a flask in the nose just ahead of the rudder pedals, and a double acting pump worked by a lever in the cockpit, connected to another flask as far back beyond the baggage compartment as we could reach to install it, about halfway down the tail boom. The result was that by shifting this 34lb in a ship that grossed out at about 1850lb, we could get a very substantial shift in the C of G position. Whenever you put waterballast in a ship the C of G goes way forward (normal range in German gliders is 46% MAC; the Americans use about 35%, but we all know they can do better than that) — I thought about 50%, without it being too squirrely. The theory was that you wanted to have the C of G around 42-43%, which would work with a lot of ships. However, 42% light, with water would put it back around 33%, and it doesn't climb too well.

C of G well forward

Honestly, we couldn't see all that much difference. The result was, however, because we were all that much heavier with the Nimbus 3, we could still climb with the C of G in its proper place as well as, or better than, the other Nimbi with their C of G well forward. The C of G shift didn't work out quite the way we thought it was going to. In flight I wasn't able to see any significant difference, and it takes about 50lb to work the pump. I hadn't done enough weight lifting, so we ended up using it to counterbalance the change of C of G with waterballast. We hope to make more tests this year, and maybe even get back to using it for its original function.

You wouldn't believe it when you're trying to put one together, but the primary problem with all Open Class ships is that they aren't heavy enough. The Nimbus 3 25 — the long-winged version (I've flown it without the tips on, and I can't imagine why anybody would want to) — has a gross of 1555lb. This is absurd, way too low, so our first priority was how to get some weight in the thing. The obvious thing was to punch a hole in the outboard end of the wing tank (that was a little trick in itself — ever tried to drill a hole 15ft down a wing? Using hand tools) and install a tube that reached from the filler hole and a means of deciding whether to fill or not — a champagne cork turned out to be ideal for the job — and this allowed us to get a very substantial increase in gross weight. We relicensed it with the FAA for a weight of 1875lb, but when we finally found out how to get the thing really full, it turned out to be 1930lb, but we didn't find that out until after we'd weighed it.

We've found a few problems with the Nimbus 3 at 1900lb. With the wings full, at rest there's only a few inches of tip clearance, but it comes right and after 50 yards or so there's about 10ft. We didn't quite know what to expect on the first take-off, but during the run the wings got higher and higher, until finally the fuselage sort of popped up between them and we were off the ground. In spite of all they say about carbon fibre not bending, it sure does, especially at 1933lb gross.

Also, on take-off with a severe crosswind you couldn't control the tail at all with a tailskid, so we fitted a tailwheel and a very sloppy sort of skid, which we think will be better and cleaner, as the Schempp-Hirth skid is about as high drag as you can hang back there. We did consider a retracting tailwheel, but there's a problem of room at the bulkhead, and we also wondered whether it was really cost-productive, with the very considerable amount of time it was going to take. To put the fixed tailwheel in took the two of us at least two solid days. Dick Brant's idea of a normal non-pressure day is about 17-18hrs, but he frequently feels the need for pressure and goes up to 24. I don't work that way.

We also planned to increase the C of G and also the gross weight to 2100lb. One of the problems with this is that we run out of places to put water, but we think we have that solved. We also decided that to balance all this water we needed to put a little tank in the tail — about two gallons (US) — so that we could maybe do away with some of the mercury and use that more for a trimming weight. That's a modification I would very strongly recommend, and why manufacturers haven't caught up with this in 10yrs is absolutely beyond me. It's the simplest thing to do in the world, with a little tank in the fin. Two gallons is about what you need, but you can check it out when you do your weight and balance, then you can have your C of G constant whether you're with water or without. Hook it up to your water dump and it dumps automatically with the rest of your water. (Don't forget to dump it, though.) With a ship already built it's a little hard to get in there and put it in, but it can be done.

I can't recommend too highly one other thing, which takes a while but is really worth doing. We did an extremely careful weight and balance on the ship, and it took four

people a whole day, with endless permutations and combinations of ballast and C of G positions. We did the whole works, and found out some extremely interesting things about what happens when you load up ships with water, and how you can compensate for that, etc. The extra weight and C of G positions were without question the deciding factors in the extra performance over other competing ships. It works better than the other Nimbuses, but I didn't think it worked better than Dick Butler's sort of home built ASW-22. He had the factory send him a bare fuselage just out of the mould, and starting about February finished the ship up himself, and had it about 3-4% better than any other ASW-22.

I might be quite wrong about this, but I don't think instruments have changed all that much in the last 10 years. I think they're prettier, and they've got more buttons to push, and knobs and switches, but I don't think much has changed. I only use a speed to fly director when I can borrow one for a contest, and have never got around to buying one of my own. They're expensive things, and I find that little PZL speed-to-fly job you twirl round with your fingers does just as well. Frankly, I'm not thrilled with electronic gadgetry, and especially not with things that will suddenly stop working on you in the middle of a contest. There's nothing worse than getting used to something and then having it go out on you. If you don't use it at all you don't get demoralised.

I was persuaded to buy a Cambridge for a 15m contest, and it only took about two to three days to get used to it and I'm completely sold on it. I don't think it's quite so applicable for what I've seen so far in New Zealand; after all, you don't start your final glide until you're about three miles from the airport — eyeball distance — but with Open Class gliders with a glide angle of over 50:1 it's very very helpful to have a continual readout of where you are and where you wish you were.

The tricks you can play with it are good, particularly with cloud streeting. Frequently I find myself starting my final glide at something like 30 miles out, well below glide path, 1000-1500ft below, but with some pretty good continuity of clouds along the way. I'd say, "OK, let's try this on for size", and I'd bump the first cloud and gain a couple of hundred feet, and then the second cloud, and I'd watch as the instrument would start to come up with the altimeter, and keep an eye on the rate, so that you could start a final glide far below what you'd normally dare start with, and go far faster than you'd dare fly, because you have a continual readout.

I don't know about you, but I find myself getting very nervous approaching strange airports where there's no really good picture for the last 10-15 miles, flying about 20kt slower than I should, and pulling up on the stick and things like that. This instrument saves wear and tear on the bolt that holds the stick in. Honestly, I think it's the only important breakthrough in the instruments in a long time. In general we've had about 100 of these Cambridge jobs, and most of them have been pretty reliable. So if you're looking for somewhere to spend $1500-1800, that's a pretty useful one to use, although I really do think it's more applicable in places where you can get a bit higher and start a little further out.

The Nimbus 3 has little spoilerons out at the wingtips, that work really as one-way ailerons — you move the stick about halfway, and the spoilerons, which will have been lying nice and flush, will pop up into the breeze, and since the breeze out there is a long way from the fuselage, it helps you get around corners. Our feeling is that the spoilers are only half big enough, so we're increasing the area about 100% to see if we can't get a little better performance that way. Of course a lot of these things don't work. With R&D you're going really well if a third of your ideas pan out — the rest you throw away.

With the Nimbus 2, remember that huge rudder horn counterbalance that sticks out in the breeze whenever you use the rudder? We decided that we really didn't need to have a spoiler interrupting that much flow over the rudder, so we took that off and counterbalanced the rudder with internal weights, like the ASW-22. That took a few days, and a good deal of glass work.

"Makes me very nervous"

We're in the process of removing a good deal of the elevator undercamber. The LDA (West Germany CAA) requires that a ship be self-recovering from a high-speed dive. The Nimbus 3 is so self-recovering that at redline it takes two hands and a good firm braced grip so it won't do about a 6*g* pull-up. This makes me very nervous, and furthermore I can't believe it can be very efficient in taking that much energy on the stick, so we're taking out the undercamber as our regulations don't require it. Admittedly a low-time pilot could get into trouble with this, because you could very easily overspeed, with no idea that you were going that fast — at redline the attitude is very flat when you're fully ballasted, and you still have about 25 or 30:1 at 140kt or something like that.

The problems manufacturers have is that they have to produce a ship that will meet the government licensing, first of all, and that isn't easy with the LDA — and impossible with our FAA (America's CAA). The second problem they have is that they're going to have to have a ship that's not going to kill a low-time pilot who gets in it and does something not terribly smart. We are optimising this particular ship for one particular pilot who has 3000 hours in sailplanes, many of them experimental with a lot of new devices etc. I would not like to see very many people who do not have a lot of experience get into this particular ship and fly it.

Yes, the safety factor has definitely come down, but would you just go out and fly it? The safety factor in cropdusting is practically nil, but people go out and cropdust, and live through it by being very skilful, with good equipment. If you or I tried to make a living as cropdusters, we probably wouldn't last very long. So yes, we are giving up safety, but how much do we need? Racing cars are a good example. The enemy of speed is weight, and in order to get rid of weight you lower the safety margin. You couldn't possibly afford to have people going around in their sports sedans at the safety margins the racing driver puts up with. We've been rather slow to come up with this in sailplane flying.

It's a question of margins. The Nimbus 2 has been tested to destruction, and failed at a hair under 10*g*. What failed was the bushing for the inboard/outboard panel joint with no sign of carbon failure. Yes, it is unsafe, but how much unsafe? No civil aircraft is ever tested to 10*g*, most transports that we fly around in all the time are not above 6*g*. The most I've ever seen in a glider in my life was 5*g*. It's extremely difficult to overstress a ship by adding ballast to the wings. In actual fact you help to strengthen it — as long as you don't add it all inboard. For example the Nimbus 3 with the outboard tanks loaded has very substantially less wing bend than with the legal tanks loaded, because the legal tanks are fairly well inboard. Another example would be the Cessna 310, which is basically a safer aircraft with full fuel and its outboard tip tank loaded than it is empty. It depends where you put the weight.

The LDA is very much to blame for the lack of development of the Open Class ships, with its weight restriction of 750kg on all sailplanes, Open Class and all, which is a very light weight. I can understand perfectly the LDA having done this, because of the towplane limitations, but it is a problem, and I can only guess at the answer. Perhaps the answer is very similar to what was done in Australia. People will say, "Yes, you must fly according to your certificate, but just be careful not to mention it." That was the technique used in 1974 in Australia, to the considerable disgruntlement of me and several other people, and a certain Swedish pilot who shall remain nameless was going round with his 150lb lunch taped to the spar. Frankly anybody who knows Nimbi at all knows how the wings flap on take-off — his practically clapped hands.

My guess is that they're going to try to avoid the whole thing. It is utterly unfair. We have a system for licensing under experimental category but on the other hand I cannot see that we can hold off the development of Open Class sailplanes which are at the forefront of development at the moment, just because the LDA likes 750kg.

Question: What factors do you consider in setting up a final glide? Obviously, the first one is the fear factor. Another one I consider very strongly is, "Don't blow it, you idiot." There's a strong tendency not to blow it after the last TP; it's so embarrassing. More seriously, the things I think about most are the likelihood of lift and sink on the final leg, and about the last thing I consider are the mechanics of it all — whether this glider has 43:1 or that sort of thing — that's very low on priority. Anything that will minimise sink is also pretty important.

I have three figures which I'm not sure are scientific, but they work pretty well for the final glide. I have some rules of thumb: in quite weak weather — about 1-2kt type lift — I usually use about 85% of the announced glide of the ship, or about 35:1 for a 15m glider (I get very nervous coming in much worse than 35:1). For medium conditions, or 2-5kt, I find 75% of the glide ratio works out well, or about 30:1; and for really strong conditions about 55% or 15:1 on a 15m ship seems to work out well. These are not precise, but neither is any sort of information.

Question: What three major techniques do you use to make better times and

scores? The first thing that we can all improve is our qualities of observation. Whatever you fly, one of the most frustrating things is the realisation that all the things you need to know are being told you all the time, but unfortunately you haven't learned how to read the language yet. It's a little like having a computer, but not knowing Fortran or any of the computer languages. Yes, you know it can do amazing things for you, if only you knew what to do. I think Observation is fascinating; you never come to the end. There's a tremendous amount that you can learn if you can just open yourselves up. I do my level best to think as openly as possible, to keep aware as much as possible, and also to look around as much as possible. It doesn't always yield results, mind you.

The next thing under the three major techniques is Decisiveness. Back in my boat sailing days I saw that a lot of people could go awfully fast, once they got settled down, but every time they'd tack, or gybe, or go round a mark, it would take them three minutes to get settled down. One thing I concentrated on was knowing all the settings and things, and getting the boat going instantly after it had passed a mark. I find the same thing in gliding, where people take too long to readjust to the new situation, so decisiveness, thinking hard about what you're going to have to do, but then doing it, is to me an extremely important thing.

I feel that a lot of us get so compulsive about one aspect of flying, particularly climbing, that we forget to think about what we should really be doing. Any time during a climb when you're not concentrating on what you're going to do next, you're wasting your time. It should be automatic, your thermalling, you should have to spend very little time thinking about it. The only useful thing to think about when you're thermalling is what you're going to do when you get to the top of the stupid thing.

Particularly when the day's a little on the weak side, you'll always see a group of people at the top of a gaggle circling around in nothing whatsoever. The reason is obvious — they haven't made up their minds ahead of time what they're going to do when the thermal drops off to 2kt, so they mill around for a few turns, thinking about it. You might ask yourself how many thermals it takes to get around say a 300km course. Let's suppose that three circles takes on the average about 30 seconds, and let's suppose that you make three circles too many at each of the maybe 18 thermals you use. That's 1½ minutes times 18 — a big margin. Dithering about because you don't know what to do next is the result of not using your head, primarily. Furthermore, particularly if you want to get up to cloudbase, you can't see anything when you're up there. You have to see where you're going next, and look for spots on the ground to head for.

The last thing under this particular topic is realistic training for competitions. You can't be realistic in training if you go out with four or five others and trade information around a lot. Real flying is a lonely business. The thing that strikes me when flying around here is that you chaps are awfully nice to each other. We aren't in the States. There's a lot of trading information, team flying, etc, here which is very educational for whoever happens to be the leader, but it's a crutch for everybody else, and it's awfully easy to take the easy way out for survival etc, forgetting that all the time you're sapping your confidence in your own decisions. I like to fly by myself when at all possible and find out what I find out.

Flying in the USA has improved greatly the last seven to eight years because a lot of the competition pilots have taken to having informal competitions every single time they fly — and they really are competitions, they're really desperately trying to beat the other pilots. Of course, in a contest they're trying even more desperately. Yours are a lot nicer; maybe ours are a little more realistic.

For example, the other day when led by Lucky Charlie here, we all came to earth at Thames. In the States not one of us would have said Boo over the radio, but quite possibly would have said, "Hey, it's really going great at Thames." The nett result was that several people who put on the brakes and went whoom, circle circle circle as soon as they heard all those people down at Thames would have joined us and it wouldn't have been a contest day, which for those, unlike me, in the upper echelons would have made rather a difference in the points table. I don't know — I sure think the way you co-operate is nice, but it's not the same thing as competition flying.

No radio information

No form of team flying is allowed at all in the States, and it's strictly forbidden to radio information to a competitor. It's strictly forbidden for your crew to give you any information, for that matter, and you would be descended on very firmly if you did. I think that rule comes from the days before I started flying, when groups would get together and team fly.

Similarly, we're not allowed to aerotow retrieve, other than in emergency situations; even if it would take you 15 hours to retrieve by car, and one hour by plane, you must retrieve by road. This grew from the old days when one of our pilots with a lot of money showed up with a towplane and didn't even bring a trailer. In those days we had a lot of free distances, so he'd go out and fly 350 miles, land himself in a big field, get himself towed home, and be back by 7pm, but the other poor devils might not be back until 7 o'clock the next morning. It was a pretty unfair advantage. The last free distance was probably 1972 or so, then for a few years we had cat's cradles, which were really thinly disguised free distances, but I think the last of those was about 1975. Nowadays it's just speed tasks of one sort or another, almost always triangles. In recent years we've frowned on O/Rs because of the risks involved with gliders coming at each other with say 200mph closing speeds, which is something to think about a little bit. We tend to have triangles whenever possible, and just in the last two or three years have multi-sided figures come in.

We tend to be extremely conservative on anything to do with rules. We have a problem in that our least successful competition pilots exercise a very strong effect on the rules we fly by. If those of us who are commonly in the first five or ten or thereabouts say, "For heaven's sake, let's do such and such," they always think it's some dastardly plot on our part to do something that will somehow get the best of them, so they have an automatic tendency to say No. Honestly, the United States has lagged behind every serious gliding country in the world by usually five to ten years.

Question: With the Nimbus 3, what sort of thermalling speed do you use, and how long does it take to drain the water out before landing? I'll take the last part first — much, much too long. Six minutes. One of the things we want to work on is a high-speed drain, but in general we're concentrating at the moment on trying to make the ship fly better, rather than on things that will make me feel better.

This circling speed. There's a formula you can use to establish the circling speed of a ship for any given weight, and it will vary as to the square root of the difference in weight. For example, the empty weight of the Nimbus 3, with me in it, is around 1100lb, and the optimum is something like 43kt best circling speed. If you load it to 1930lb, that's 175% of that, and the square root of 75% is about 3.2, and so we should be circling at 1 x 3.2 above 43, which comes out at about 56kt.

However, when you're circling, you're creating *g* forces, so your airplane doesn't really weigh 1100lb, but more like 1400lb, so you should be circling at 12% faster just to allow for the 0.3*g* load inherent in the bank, or if you're circling really tightly, allow 0.6*g* additional. I think most people have a tendency to circle too slowly, because they're taking the figures out of Dick Johnson's curves, or what you have when the ship is at X weight, and not realising that it isn't at X weight, but at X plus 30% weight. Another thing I found with the really heavy ships is that it pays to add another 3 or 4kt to the magic speed, because you're getting into the Reynolds Number range, and the higher the Reynolds Number the lower the drag coefficient of the section. I made this discovery by accident, long before I got to explaining it, but if the magic figure is 64kt, it's a lot better to try 67kt.

By the way, something I've noticed here is that most people don't circle tight enough, not at all tight enough, particularly in big ships like that. The first couple of years we had Nimbus ships in the States, they didn't climb particularly well. The reason was perfectly simple — they were flying around with 30° bank, so of course they didn't; the thermal was here and they were flying out around there. It's a typical problem with glider pilots, I've found, even some of the very best — they go around the edges of thermals rather than right in the middle. The other day I happened to meet a Nimbus on the way past Rotorua, and he was quite a bit above me, but I climbed right up through him, above him in a thermal, and he never altered his 20-25° bank, going round the edges. It didn't seem to occur to him that there must be some good reason I was going up through him rather well. I've found this a particular disease of Open Class pilots.

Question: Have you found it any disadvantage not being able to tune your glider before this contest? No, it hasn't been that kind of contest. We did some work on it, but that hasn't been a factor at all, and it happens to be a very good Mini-Nimbus. I have a later model — carbon — and I've flown a glass model in a contest in France in 1977. I've tried a fair number and flown against a fair number,

and they vary considerably, but this one seems to be exceptionally good. It climbs well, and I can climb up thermals inside people without any trouble.

I decided some years ago that it wasn't practical as a school teacher on a rather limited income — a couple of years' salary would just about buy a 15m ship if I didn't eat that year — to try and keep up with the latest. For a couple of years I didn't own a glider at all, figuring that I could get them from the manufacturers for competition purposes. The manufacturer has a very strong interest in getting a well-known pilot to fly his equipment, and the pilot has a very strong interest in getting the equipment, so it's a nice symbiotic relationship. I've been doing this one way or another since about 1970, so I tried not owning a ship at all for two years, but I found that didn't work too well. I'd have no trouble getting ships for contest, but I did have trouble getting ships to practise with. Often a ship I get for a contest only arrives in the country a month or a week beforehand, and then I have to check it out.

The lack of practice didn't work out too well, so I now own a third of a Mini-Nimbus. One of my two partners is my father-in-law, and we all get along extremely well together. All my in-laws have glid, and in fact my mother-in-law was at one point the woman champion. My wife and I met at a contest I went to that turned out to be run by her father, and she's crewed for me in every contest I've entered since we were married; she's a superb crew, having grown up with gliders. She hasn't soloed for about 15 years, but she has a Gold C and was I guess about the third best woman pilot in the US for a while, but she got a little tired of it. Two things at once — the ships I was getting began to get more and more sophisticated, and they weren't the kind you could hop into every six weeks or so, but you had to stay fairly current in them. She was also getting rather bored just flying around gazing at the landscape, and didn't feel any particular urge to get involved with competition, so gradually she just stopped doing it. She still likes to be around the scene a great deal.

Sort of frustrating

The flying here is a very interesting and enjoyable kind — sort of frustrating, you understand — and the conditions have been such that local knowledge has been much more important than usual. Normally I don't think local knowledge is all that big a deal, but in mountain areas and when you can't get very high, it really does pay to know which ridges work and which ridges don't. In retrospect, on several days I could see that if I'd only known there was a good place that you could surely stay up in a particular location, I'd have pressed on, where I had to work some place else because I wasn't at all sure I could stay up.

If I'm correct in what I hear, the experience of foreign pilots coming to New Zealand has been almost universally bad for the first contest or the first week, including such people as Ernst Peter. I don't think you all, who are used to it, realize how much there is to learn for an outsider. Maybe it's because New Zealand is such a small country, and one of the beautiful things about it is that you can go 20 miles and it's a whole new landscape, and I don't recall ever having been in a place where the changes were so marked and so frequent.

From the flying point of view, it's fascinating to fly here because of the variety, but you've got to accept the fact that for the first week or so you're not going to do terribly well while you're finding your way around. Several things work almost 180° from what they do anywhere else I've flown. For example, back home we have a lot of ridges, and a tremendous amount of our gliding is done along ridges. Now I've never seen a ridge you can treat like this one, where you just fly in at 200-300ft and expect to get back up, but our general rule is that if you fall below the lip of the ridge you'd better have some place to land.

For the first few days I was extremely cautious about this, because of my thousands of hours of flying on ridges in various parts of the world, none of which have ever acted in this way. It could be the flat land, because we tend to have rolling hills upwind, which often produce unpleasant effects in the valleys. Similarly, some of the very best pilots here tell me that the best thermal-producing areas are areas like the swamp, for example, which we stay away from like the plague — or the lowland in general. Our basic rule is to head for the high ground. Lowland almost never works in the States — if there's a hill around, we head for it. That doesn't seem to work here.

Navigation's a cinch around here because you can see so far. In many countries I've flown in, such as south-west USA and Australia, the towns all look very much the same, with a few houses, a store or two, a garage, grain silo, and a railroad station. Here the towns all look different, but they sound the same. Te Aroha, Tirohia, Tirau, Te Hoe — it's all a bit strange to us.

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FLYING OVER FO

The Alps, barely more than a day's journey fr world's most spectacular flying, are neverthele pilots. Last June NICK HACKETT was able to ta guest in the Allgäuer Gliding Competition at Fü last four days gives some idea of the extra dime may tempt others in the same direction.



10 400ft on the altimeter — not enough to cross the range ahead.

With two good days behind us, Day 3 miraculously dawned clear again. The task was a triangle of about 300km, Lago di Rèsia in Italy and Mayrhofen in Austria. No one ever seemed too sure of task distances at briefing. I suppose as straight flight between two points is rarely practical in the Alps, the distance is irrelevant anyway. It is more a question of knowing what known task can be flown comfortably in a given set of conditions.

As usual for tasks in the mountains, start height was increased to 1500m agl to facilitate the transition up from the plain. After their initial climb up the foothills, this enabled pilots to fly out and cross the line and then get back to the mountains with sufficient height to contact the upper level thermals immediately. The alternative would entail descending through any lower level inversion, and having to go through the sometimes slow and laborious task of climbing in anabatic lift to operating height again.

I crossed the line at 1121hrs and this time the thermals were immediately on course. From the first climb to 10 000ft above the Gehrenspitze, it was clear that bases would be high. A straight glide south with a top-up off the Knittelkarspitze gave me enough height to clear the Lechtaler Alpen just north of Imst, then run along the south face of the 9000ft chain to Landeck.

I kept to my self-imposed rule of keeping high and was able to pass quickly those apparently struggling at lower altitudes, although they were obviously in the same thermal. One learns quickly to evaluate thermal sources in the mountains and while cloud or wisps proved a good second string, I soon preferred to look for topographical characteristics for the best lift. Thus while a run along the peaks, or along their south faces, proved a good rule of thumb, excursions out above secondary ridges, promontories or crags would often find excellent trigger points; likewise when the peaks were covered in snow, the trigger point usually migrated down to the snow line, so a flight path of even a quarter of a mile out would then become appropriate.

South of Landeck cloudbase was rising with the peaks and above the 9958ft Hexenkopf I climbed to 11 000ft. I could now see the TP 30km away and crossed momentarily into Switzerland hoping to get some lift off Piz Mundin, itself 10 300ft, but the snow mantle precluded this and I glided somewhat gingerly into Italy and on to the TP — the old church spire projecting from the lake bed. Photo taken, I turned east up the lateral valley below Rèsia hoping to find lift off the south face of the Schafkopf ridge. I was now quite a way below it and the gentle snow fields offered no assistance whatsoever. Searching up the valley I gradually sank below the snow line. Below there was no place to land at all and faced with the necessity of flying further south into Italy to find a landing place, I headed across the valley.

Fickle caprices

Above me, in a totally stupid place with no valid reason to be there, was a scruffy little cloud. Out of sheer perversity I flew under it and in the very middle of the valley bottom above a farmyard the vario squawked: two turns later I was in 4kt. Fifteen minutes later as the altimeter touched 10 000ft a hot pungent farmyard smell wafted through the ventilator. I thanked God for Italian cows, perverse little thermals and the fickle caprices of nature that bind us so firmly to this sport of ours.

Heady with new-found confidence I decided to forsake the return route along the valley and took the spectacular alternative along the Glockturmkamm. I slid silently past the 11 000ft summit of the Glockturm, then threaded northwards through the white wonderland of peaks, gliding almost 50km in a straight line to take a 10kt climb above the Tschirgant to 12 000ft, then racing along the face of the Mieminger range in superb conditions, straight over to and along the north chain — the Nordkette above Innsbruck.

The transition south to the Kellerjoch proved to be no problem, neither did the flight up to the TP, the valley cable car station in the centre of Mayrhofen. Returning to Nordkette above Schwaz, the flight back past Innsbruck was fast and furious — a 30km long cloudstreet was lying along the Nordkette, base something above 12 000ft. Climbing at an indicated 8kt on the averager at the western end to final glide height, I suddenly realised in the general excitement that I was scaling off the ¼mil map with the ½mil calculator. I put the nose down and flew the final 60km at VNE, still crossing the line at 500ft. As I landed and rolled to a stop, eager hands were waiting to take my wingtips and pull me off the landing strip. I was to watch in wonder as more than 30 competing and *hors concours* aircraft landed in quick succession on an area smaller than the Husbands Bosworth hangar hardstanding! And some say Hus Bos is too small for a Nationals! A fourth place did something for my injured pride of the previous day and barbecued supper on the clubhouse terrace again ended a memorable day.



Day 4 proved to be another fine day. The 265km O/R to the Alpine Gliding Club at Unterwössen was along the northern edge of the Alpine chain to the east. Crossing the line, the hang gliders circling above the Tegelberg shared the first thermal directly on course. Setting off with the carbon Janus we both found strong lift on opposite sides of the ridge and each, in his own gaggle of *"Drachen"*, rose to meet again in one multi-coloured swarm above the spine. Soon we were away, flying south of track to take advantage of some higher peaks, passing the delightful Schloss Linderhof way below on

Take a deep breath and press on! The Bernina TP, three countries mountains on the far horizon under the clouds on the right of the pict



UR COUNTRIES

from the Channel and offering some of the less strangely ignored by most British glider ample their delights when flying his LS-3 as a Füssen, Upper Bavaria. His description of the ension and sheer thrill of flying in the Alps and

our left, then crossing directly over Garmisch Partenkirchen to take a good thermal off the Soiernspitze. Only the smallest traces of cumulus now lay ahead and we parted company.

By Spitzingsee, where I had first worn skis 22 years before, the sky in front looked ominously blue. One ragged cu beckoned above the forbidding granite massif of the Wilder Kaiser off to the south-east. Arriving almost level with the wicked razor-edge comb, I found strong turbulence, but despite the combined presence of the little cloud, no lift. After tiptoeing to the TP, I turned back in totally dead air, hoping to cross the ridge north of the Geigelstein. It was not until I was perilously close to the ground that I found a ragged thermal which gained strength as it migrated up the ridge to meet its counterpart coming up the other face and turned into sustained 6kt lift.

Shortly thereafter at 10 000ft again I pressed on, and now the thermals were waiting in line. Schliersee, then Tegernsee passed in quick succession and 70km out I was on the final glide path. This time I passed between the Walchensee and Kochelsee to allow a true glide path along the north side of the Ammergebirge, and it seemed the more I put the nose down, the stronger became the lift. Strapping myself tighter and securing all movables I passed Oberammergau at 100kt flying now below the peaks and for the last 30km seldom more than 100ft above the wooded north flanks of the mountains. Passing Neuschwanstein at VNE, the castle above me begged to be photographed, but with both hands firmly on the stick I had to pass up the opportunity. On landing I was one of the first back and subsequently pleased with a third place for the day.

When I awoke on Day 5, cumulus was already forming way above the peaks — probably 10 000ft bases at 7.30am! The task

tries and 70km away rises above the other icure.





Approaching the 9721ft Zugspitze from the west.

was a 525km triangle, Zell am See, Bernina pass, the so-called Kaiserdreieck. As I set off the visibility was incredible — peaks 200km away clearly identifiable. The first leg — Innsbruck — Kellerjoch — Gerlospass went off without incident. From there to the first TP, a soaring feast — 60km of south-facing ridge, average height 7500ft, with a cloudstreet from one end to the other. From the Kreuzjoch above Gerlos to the TP I flew at 80kt and circled three times. As far as the eye could see in each direction there were little horizontal white sticks below cloudbase — a three dimensional aerial raceway — gliders passing above, below, alongside. I soon decided that circling would be akin to doing the same on a busy motorway. I took the TP photo and headed straight back without stopping, once again experiencing the same exhilarating run to Gerlos. Ahead the sky looked superb, so I elected to fly south of Innsbruck for the higher ground of the Stubaier Alpen. Flying mostly above 10 000ft I was soon crossing Ötztal, the ski resorts of Hochsölden and Obergurgl looking impossibly close to the left, and the next TP 110km away already visible, but looking exceedingly remote beyond some very high terrain.

Cold and inhospitable

Below Landeck I crossed to the west side of the Engadine valley into Switzerland and flew down the imposing range of 10 000ft peaks to the Silvretta, thence south again, kissing the peak of Piz Linard at 11 191ft, and with lift appearing to be dying on that side of the valley, crossed to the east side at Piz Quattervals. I had not seen another glider for over an hour, and with the landscape looking very cold and inhospitable, only the thinnest suggestion of cloud remained in front under an increasing cirrus cover above. From a maximum altitude of 11 200ft I tiptoed south to the TP, and as the airfield at Samedan came into view my worst suspicions appeared to be borne out, with no gliding activity apparent at all. On the other side of the valley the piste machines were still rolling the snow above St Moritz. Flying up to Val Bernina to the TP — the station at the top of the pass, some atavistic instinct warned me that there would be strong sink ahead. The only way to get into the photographic zone was therefore to cross to the south side of the pass and fly up to the glacier on the north face of Piz Palu, the Pizzo Bernina rising majestically to 13 289ft behind. This I did; skimming over the roof of the Swiss Alpine Club but on the flank of the Tschierva I took my photos and, trembling with fear, turned back, the keel literally feet above the ice.

I had been told that Maloja wind always blew up the Piz Vaudret above Samedan, and so it turned out. I was soon back to 11 000ft and with my pulse back to manageable levels headed for home. The rest of the flight was uneventful with thermals improving again as I headed north, my track this time to the east of Piz Laschadurella, thence flying briefly through Italian airspace south of the Reschenpass to set up my final glide 75km out above Nauders. Another compromise — to cross the 8000ft Lechtaler Alpen 40km out meant another VNE glide home which was exhilarating but bumpy.

I was startled to be first back, and indeed subsequently to have won the day, despite what I considered a rather slow time of 5hrs 47min. The initial impression of task speeds in the Alps is understandable until one measures the track flown. In this instance my own track measured somewhere between 590 and 620km and proved to be tactically correct. One pilot flew the Alpenhauptkamm — the main Alpine spine — directly from the 1st to the 2nd TP, but took considerably longer because the high snow fields were not generating the lift and temperature differences that the deeper valleys to the north were producing.

Day 6, the final day, dawned if anything even better than the previous one and 600km was obviously on. However with the banquet being prepared in the hangar and a full complement of pilots required for the festivities, 227km was set — Kellerjoch, Landeck railway station.

Even after waiting I still set off too soon. A second start proved as bad as my first, seemingly taking an interminable time over the first critical climb, but mindful of my hosts I felt I couldn't risk a third. Already past

(Continued on p86.)

INTERNATIONAL GLIDING RECORDS (Correct as at 22.2.84)

SINGLE-SEATERS

Height Gain	12 894m	P. F. Bikle, USA	SGS 1-23E	25.2.1961
Absolute Altitude	14 102m	P. F. Bikle, USA	SGS 1-23E	25.2.1961
Straight Distance	1460.8km	H-W. Grosse, W. Germany	ASW-12	25.4.1972
Goal Distance	1254.26km	B. L. Drake, D. N. Speight, S. H. Georgeson, New Zealand	Nimbus 2	14.1.1978
Goal & Return Distance	1646.68km	T. L. Knauff, USA	Nimbus 3	25.4.1983
Triangular Distance	1306.85km	H-W. Grosse, W. Germany (in Australia)	ASW-17	4.1.1981
100km Triangle	195.30km/h	I. Renner, Australia	Nimbus 3	14.12.1982
300km Triangle	158.67km/h	H-W. Grosse, W. Germany (in Australia)	ASW-17	24.12.1980
500km Triangle*	159.65km/h	H-W. Grosse, W. Germany (in Australia)	ASW-22	20.12.1983
750km Triangle	143.63km/h	H-W. Grosse, W. Germany (in Australia)	ASW-17	6.1.1982
1000km Triangle	145.32km/h	H-W. Grosse, W. Germany (in Australia)	ASW-17	3.1.1979
1250km Triangle	133.24km/h	H-W. Grosse, W. Germany (in Australia)	ASW-17	9.12.1980

MULTI-SEATERS

Height Gain	11 680m	S. Josefczak and J. Tarczon, Poland	Bocian	5.11.1966
Absolute Altitude	13 489m	L. Edgar and H. Klieforth, USA	Pratt Read	19.3.1952
Straight Distance	993.76km	S. H. Georgeson and Helen Georgeson, New Zealand	Janus C	31.10.1982
Goal Distance	993.76km	S. H. Georgeson and Helen Georgeson, New Zealand	Janus C	31.10.1982
Goal & Return Distance*	1040km	E. Müller and K. Senne, W. Germany (in Australia)	Janus C	26.12.1983
Triangular Distance	1112.62km	H-W. Grosse and H. Kohlmeyer, W. Germany (in Australia)	SB-10	28.12.1979
100km Triangle	158.30km/h	E. Müller and O. Schäffner, W. Germany (in South Africa)	MÜ 2	10.12.1981
300km Triangle	140.48km/h	E. Müller and O. Schäffner, W. Germany (in Australia)	Janus	30.11.1979
500km Triangle	146.69km/h	E. Müller and K. Senne, W. Germany (in South Africa)	MÜ 2	13.12.1981
750km Triangle	131.84km/h	H-W. Grosse and H. Kohlmeyer, W. Germany (in Australia)	SB-10	14.1.1980
1000km Triangle	129.54km/h	H-W. Grosse and H. Kohlmeyer, W. Germany (in Australia)	SB-10	21.12.1979

SINGLE-SEATERS (WOMEN)

Height Gain	9119m	Anne Burns, Gt Britain (in South Africa)	Skylark 3B	13.1.1961
Absolute Altitude	12 637m	Sabrina Jackintell, USA	Astir CS	14.2.1979
Straight Distance	949.7km	Karla Karel, Gt Britain (in Australia)	LS-3	20.1.1980
Goal Distance*	748km	Joann Shaw, USA	Nimbus 2	17.8.1983
Goal & Return Distance	1127.68km	Doris Grove, USA	Nimbus 2	28.9.1981
Triangular Distance	814.01km	Karla Karel, Gt Britain (in Australia)	LS-3	9.1.1980
100km Triangle	139.45km/h	Susan Martin, Australia	LS-3	2.2.1979
300km Triangle	129.52km/h	Susan Martin, Australia	Ventus	8.2.1981
500km Triangle	133.14km/h	Susan Martin, Australia	LS-3	29.1.1979
750km Triangle	95.42km/h	Karla Karel, Gt Britain (in Australia)	LS-3	24.1.1979

MULTI-SEATERS (WOMEN)

Height Gain	8430m	Adela Dankowska and M. Mateliska, Poland	Bocian	17.10.1967
Absolute Altitude	10 809m	Mary Nurr and H. Duncan, USA	SGS 2-32	5.3.1975
Straight Distance	864.85km	Tatiana Pavlova and L. Filomechkina, USSR	Blanik	3.6.1967
Goal Distance	864.86km	Isabella Gorokhova and Z. Koslova, USSR	Blanik	3.6.1967
Goal & Return Distance	617.43km	Pelagia Majewska and V. Malcher, Poland	Halny	14.5.1980
100km Triangle	126.28km/h	Adela Dankowska and E. Grzelak, Poland	Halny	1.8.1978
300km Triangle	97.74km/h	Adeli Orsi and F. Bellengeri, Italy	Calif A-21	18.8.1974
500km Triangle*	93.7km/h	Adela Dankowska and S. Piatek, Poland	Halny	4.5.1980

BRITISH NATIONAL RECORDS (Correct as at 22.2.1984)

SINGLE-SEATERS

Height Gain	10 065m	D. Benton	Nimbus 2	18.4.1980
Absolute Altitude	11 500m	H. C. N. Goodhart (in USA)	SGS 1-23	12.5.1955
Straight Distance	949.7km	Karla Karel (in Australia)	LS-3	20.1.1980
Goal Distance	579.36km	H. C. N. Goodhart	Skylark 3	10.5.1959
Goal & Return Distance	1000.88km	W. E. Malpas (in USA)	Mini-Nimbus	28.9.1981
Triangular Distance	840.2km	C. N. Varley (in Australia)	Mosquito	23.1.1982
300km Goal and Return	153.3km/h	A. Sands (in USA)	Kestrel 19	10.5.1983
500km Goal and Return	152.7km/h	M. R. Carlton (in South Africa)	ASW-17	24.12.1980
100km Triangle	143.3km/h	E. P. Hodge (in Rhodesia)	Std Cirrus	30.10.1976
300km Triangle	146.8km/h	E. Pearson (in South Africa)	Nimbus 2	30.11.1976
500km Triangle	141.3km/h	B. J. G. Pearson (in South Africa)	ASW-20	28.12.1982
750km Triangle	109.8km/h	M. R. Carlton (in South Africa)	Kestrel 19	5.1.1975

MULTI-SEATERS

Height Gain	9836m	T. J. Wills and B. Iggulden (in New Zealand)	Twin Astir	13.1.1982
Absolute Height	10 607m	T. J. Wills and B. Iggulden (in New Zealand)	Twin Astir	13.1.1982
Straight Distance	472.43km	M. R. Carlton and M. French (in South Africa)	Calif A-21	18.12.1979
Goal Distance	472.43km	M. R. Carlton and M. French (in South Africa)	Calif A-21	18.12.1979
Goal & Return Distance	692.02km	M. R. Carlton and C. Greaves (in South Africa)	Calif A-21	23.12.1978
Triangular Distance	762.72km	C. M. Greaves and C. Simpson (in South Africa)	Janus	28.12.1977
300km Goal and Return	105.44km/h	M. R. Carlton and C. Greaves (in South Africa)	Calif A-21	19.12.1978
500km Goal and Return	113.08km/h	M. R. Carlton and C. Greaves (in South Africa)	Calif A-21	23.12.1978
100km Triangle	137.22km/h	M. R. Carlton and Leonie Lawson (in South Africa)	Calif A-21	27.12.1978
300km Triangle	112.59km/h	M. R. Carlton and C. Greaves (in South Africa)	Calif A-21	17.12.1979
500km Triangle	108km/h	M. R. Carlton and C. Greaves (in South Africa)	Calif A-21	21.12.1978
750km Triangle	104.01km/h	C. M. Greaves and C. Simpson (in South Africa)	Janus	28.12.1977

SINGLE-SEATERS (WOMEN)

Height Gain	9120m	Anne Burns (in South Africa)	Skylark 3B	13.1.1961
Absolute Altitude	10 550m	Anne Burns (in South Africa)	Skylark 3B	13.1.1961
Straight Distance	949.7km	Karla Karel (in Australia)	LS-3	20.1.1980
Goal Distance	528km	Ann Welch (in Poland)	Jaskolka	20.6.1961
Goal & Return Distance	545km	Anne Burns (in South Africa)	Std Austria	6.1.1966
Triangular Distance	814.01km	Karla Karel (in Australia)	LS-3	9.1.1980
300km Goal and Return	107.5km/h	Karla Karel (in South Africa)	ASW-15B	1.1.1975
500km Goal and Return	102.6km/h	Karla Karel (in Rhodesia)	ASW-15B	16.10.1975
100km Triangle	110.8km/h	Karla Karel (in Rhodesia)	ASW-15B	2.11.1975
300km Triangle	125.87km/h	Karla Karel (in Australia)	LS-3	12.2.1980
500km Triangle	120.69km/h	Karla Karel (in Australia)	LS-3	20.2.1980
750km Triangle	95.42km/h	Karla Karel (in Australia)	LS-3	24.1.1979

UNITED KINGDOM RECORDS (Correct as at 22.2.1984)

SINGLE-SEATERS

Height Gain	10 065m	D. Benton	Nimbus 2	18.4.1980
Absolute Altitude	11 031m	D. Benton	Nimbus 2	18.4.1980
Straight Distance	718km	T. J. Wills	Std Libelle	1.8.1976
Goal Distance	579.36km	H. C. N. Goodhart	Skylark 3	10.5.1959
Goal & Return Distance	801.3km	C. Garton	Kestrel 19	22.7.1976
Triangular Distance	632.3km	A. D. Purnell	Nimbus 3	3.8.1983
300km Goal & Return	114.5km/h	D. S. Watt	ASW-22	18.8.1983
500km Goal & Return	89.7km/h	C. Garton	Kestrel 19	22.7.1976
100km Triangle	123.2km/h	R. Jones	Nimbus 3	13.8.1983
200km Triangle	108.6km/h	R. Jones	Nimbus 3	14.8.1983
300km Triangle	112km/h	D. S. Watt	ASW-22	3.8.1983
400km Triangle	95.9km/h	A. E. Kay	ASW-22	15.6.1983
500km Triangle	106.9km/h	R. Jones	Nimbus 2	31.5.1975
600km Triangle	88.8km/h	C. Garton	Kestrel 19	10.6.1976
100km Goal	128.4km/h	K. A. Harrison	SHK	13.4.1969
200km Goal	114.3km/h	I. W. Strachan	Skylark 4	2.6.1963
300km Goal	132.8km/h	A. H. Warminger	Kestrel 19	24.4.1976
400km Goal	73.8km/h	T. J. Wills	Std Libelle	7.6.1976
500km Goal	90.7km/h	H. C. N. Goodhart	Skylark 3	10.5.1959

SINGLE-SEATERS (WOMEN)

Height Gain	7833m	Alison Jordan	Astir CS	8.10.1978
Absolute Altitude	8701m	Alison Jordan	Astir CS	8.10.1978
Straight Distance	454km	Anne Burns	Skylark 3B	10.5.1959
Goal Distance	309km	Anne Burns	Skylark 3B	12.4.1958
Goal & Return Distance	334.2km	Ruth Housden	Libelle	29.5.1982
300km Goal & Return	60km/h	Anne Burns	Nimbus 2	25.7.1975
100km Triangle	80km/h	Anne Burns	Cirrus	14.6.1970
200km Triangle	69.3km/h	Anne Burns	Std Austria	22.8.1964
300km Triangle	76.8km/h	Jane Randle	Kestrel 19	18.8.1976
400km Triangle	60.6km/h	Anne Burns	SHK	5.8.1967
500km Triangle	76.1km/h	Anne Burns	Nimbus 2	31.5.1975
100km Goal	83km/h	Rika Harwood	Olympia 2B	27.5.1957
200km Goal	85.5km/h	Anne Burns	Olympia 419	2.6.1963
300km Goal	63.9km/h	Anne Burns	Skylark 3B	12.4.1958

UK 750km DIPLOMA

1. Goal & Return	801.3km	C. Garton	Kestrel 19	22.7.1976
2. Distance	761km	D. S. Watt	ASW-20L	6.5.1980

MULTI-SEATERS

Height Gain	6740m	J. R. Monteith (USA) and M. Mahon	Capstan	2.11.1972
Absolute Altitude	7650m	J. R. Monteith (USA) and M. Mahon	Capstan	2.11.1972
Straight Distance	421.5km	J. S. Fielden and Valerie Fielden	Bergfalke 3	14.8.1970
Goal Distance	421.5km	J. S. Fielden and Valerie Fielden	Bergfalke 3	14.8.1970
Goal & Return Distance	407.3km	J. S. Williamson and C. Buchanan	Twin Astir	24.8.1980
300km Goal & Return	81.91km/h	J. R. Jeffries and N. Foster	Calif A-21	17.8.1975
100km Triangle	83.5km/h	J. R. Jeffries and G. Love	Calif A-21	22.4.1974
200km Triangle	85.3km/h	B. Brownlow and I. Frazer	Janus C	9.4.1983
300km Triangle	85.87km/h	B. Fitchett and A. Miller	Janus	9.5.1979
400km Triangle	68.4km/h	J. R. Jeffries and G. Love	Calif A-21	7.5.1974
500km Triangle	88.4km/h	J. R. Jeffries and Gillian Case	Calif A-21	31.5.1975
100km Goal	96.5km/h	D. B. James and K. O'Riley	Gull 2	27.5.1957
200km Goal	77.8km/h	B. J. Willson and H. Daniels	Blanik	11.7.1970
300km Goal	69.2km/h	W. A. H. Kahn and J. Williamson	Eagle	12.4.1958

15m and RESTRICTED CLASS

Straight Distance	718km	T. J. Wills	Std Libelle	1.8.1976
100km Triangle	119.7km/h	T. J. Wills	LS-4	18.4.1981
200km Triangle	92.2km/h	A. J. Stone	Std Cirrus	16.8.1976
400km Triangle	91.7km/h	S. J. Redman	Std Cirrus	31.5.1975
300km Goal	131.1km/h	T. J. Wills	Std Libelle	24.4.1976
400km Goal	73.8km/h	T. J. Wills	Std Libelle	7.6.1976

15m CLASS ONLY

500km Goal & Return	79.1km/h	J. D. Benoist	ASW-20	9.4.1983
200km Triangle	93.49km/h	B. T. Spreckley	ASW-20	14.7.1979
300km Triangle	99.46km/h	D. S. Watt	ASW-20FL	19.5.1980
400km Triangle	72.2km/h	B. L. Cooper	DG-202	18.8.1983

MOTOR GLIDERS (†BRITISH NATIONAL RECORD ONLY)

SINGLE-SEATERS

Straight Distance†	652.7km	B. J. Willson (in Australia)	PIK-20E	10.1.1983
Goal Distance†	415.1km	B. J. Willson (in Australia)	PIK-20E	11.1.1983
100km Triangle	57.3km/h	I. W. Strachan	SF-27M	13.6.1971
200km Triangle	48.2km/h	I. W. Strachan	SF-27M	23.8.1976
500km Triangle†	71.75km/h	B. J. Willson (in Finland)	PIK-20E	22.5.1980
100km Goal	85.7km/h	I. W. Strachan	SF-27M	16.7.1971

MULTI-SEATER (†Also BRITISH NATIONAL RECORD)

Height Gain†	4355m	R. I. Lloyd and J. Fox	SF-28A	22.10.1982
100km Triangle†	35.6km/h	P. T. Ross and H. Daniels	SF-28A	27.6.1976
100km Goal	76.2km/h	P. T. Ross and K. Winfield	SF-28A	22.8.1976
200km Goal	66.3km/h	P. T. Ross and P. Fletcher	SF-28A	18.7.1976

INTERNATIONAL MOTOR GLIDERS (Correct as at 22.2.1984)

SINGLE-SEATERS

Height Gain	8923m	G. Cichon, W. Germany	Nimbus 2M	27.5.1979
Absolute Altitude	10 408m	G. Cichon, W. Germany	Nimbus 2M	27.5.1979
Straight Distance	652.7km	B. J. Willson, Gt Britain (in Australia)	PIK-20E	10.1.1983
Goal Distance	532.38km	F. Andersen, Denmark (in Australia)	PIK-20E	20.1.1983
Goal and Return Distance	1008.89km	F. Rueb, W. Germany (in South Africa)	Nimbus 2M	7.1.1981
Triangular Distance	1013.21km	F. Rueb, W. Germany (in South Africa)	Nimbus 2M	31.12.1979
100km Triangle	152.16km/h	F. Rueb, W. Germany (in South Africa)	Nimbus 2M	29.12.1977
300km Triangle	140.74km/h	F. Rueb, W. Germany (in South Africa)	Nimbus 2M	8.1.1983
500km Triangle*	140.5km/h	F. Rueb, W. Germany (in South Africa)	Nimbus 3M	13.1.1984
750km Triangle	120.21km/h	F. Rueb, W. Germany (in South Africa)	Nimbus 2M	29.12.1978
1000km Triangle	109.94km/h	F. Rueb, W. Germany (in South Africa)	Nimbus 2M	31.12.1979

MULTI-SEATERS

Height Gain	5044m	M. Niebler and G. Kraus, W. Germany	G-109	26.9.1982
Absolute Altitude*	6650m	K. Doser and J. Prasser, W. Germany	Dimona	8.11.1982
Straight Distance	952.53km	W. Binder and K. Heimann, W. Germany	Janus M	16.5.1980
Goal Distance	646.42km	G. Jacobs and G. Hüttel, W. Germany	SF-25E	28.4.1976
Goal & Return Distance	617.95km	L. de Preter (Belgium) and D. Sohn (W. Germany) (in South Africa)	Janus CM	29.12.1981
Triangluar Distance	756km	W. Collee and K. Pummer, W. Germany (in South Africa)	Janus M	31.12.1979
100km Triangle	128km/h	W. Collee and E. Doerr, W. Germany (in South Africa)	Janus M	15.1.1980
300km Triangle	129.72km/h	O. Wegscheider and A. Ascher, W. Germany (in South Africa)	Janus CM	12.12.1980
500km Triangle	109.96km/h	O. Wegscheider and K. Zoulek, W. Germany (in South Africa)	Janus CM	5.12.1980
750km Triangle	98.97km/h	W. Collee and K. Pummer, W. Germany (in South Africa)	Janus M	31.12.1979

* = Subject to homologation

New records have to exceed the old ones by: Distance 10km. Heights 3%. Closed circuit speeds 2km/h. Goal speeds 5km/h.
For records, no side of a triangle may have a length less than 28% of the total distance of the course, except that for triangles of 750km or more for International and British National Records, or of 500km or more for UK Local Records, no side may have a length less than 25% or greater than 45% of the total distance.
Conversion Factors: Multiply km or km/h by 0.621 to get statute miles or mph. Multiply km by 0.54 to get nautical miles or kts. Multiply metres by 3.28 to get feet.

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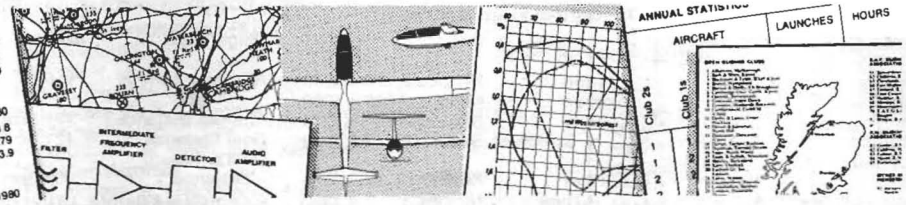
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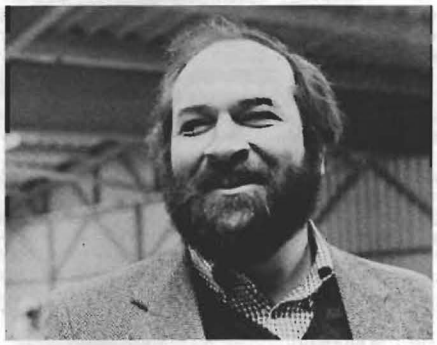
BGA and General News





FROM THE SECRETARY's DESK

Barry Rolfe, BGA administrator



Having been rude about the Club News section of S&G last issue I thought I might turn my attention to the Classified Ads. I found a clinic offering vasectomies followed by an ad for mods to be carried out by the "canopy doctor". A fertile mind wonders whether there is scope here for personal services during the idle times spent sitting in long launch queues. It might be a snip!

The Executive meetings for the first two months of this year, and indeed for quite some time now, have been preoccupied by some of the perennial items including the old favourites airspace, sponsorship and finance.

A review has been carried out of our policy and tactics towards airspace changes in the light of recent experience with the Scottish airway and the proposals to reconsider our airways crossing exemption. It is quite clear that sporting aviation as a whole is not being given a fair crack of the whip by the airspace authorities, and the Executive feel that we must have a neutral and effective court of appeal to which we can take our more important cases of airspace injustice. We do not accept the exclusion of gliders from any airspace where the main reason is operational convenience or special interest group pressure.

On the subject of sponsorship we have passed many happy hours arguing about the fairest way to divide up large sums of money that we haven't been given. I think we have finally agreed a set of guidelines to be applied to any events of a national nature which belong to the BGA. It is desirable that sponsorship benefits which may arise should be spread as widely as possible across the whole movement in this country, and one potentially important benefit would be improved awareness and appreciation of gliding by the general public.

In January we finalised our budget for 1984/85 which calls for an annual subscription increase next year to £4 per head for flying members of civilian clubs. By the time this magazine appears I hope that the proposal has been adopted by the AGM and that I am not standing in the unemployment queue. Any subscription increase is always viewed with alarm and despondency but I would ask you to compare our rates with the rest of sporting aviation — power pilots pay £20 to AOPA, parachutists £18 to BPA, microlight pilots £15 to BMAA and even the aeromodellers pay £5pa, which is £1 more than the BGA is asking!

To close on a happier note I am delighted to record the award of two BGA Diplomas for "services to gliding" by the Executive to Bill Manuel and Andrew Thorburn. With his many glider designs and construction Bill has maintained the tradition of beautiful craftsmanship in wood and Andrew has made an immense contribution to the SGU and the movement over 50 years and is now the only founder member of that club still flying. Thank you both.

Late News: *On going to press it was announced that Ben Watson, BGA vice-chairman, has been appointed the British team manager for the 1985 World Championships at Rieti, Italy.*

INTER-CLUB LEAGUE CHANGE

Only the definition of the Intermediate Class pilot has been changed in the new rules for the Inter-Club League. It is now "any pilot who by April 1 has never flown in a Nationals level competition; has not a 500km Diamond distance leg and either hasn't a 300km Diamond goal or has a 300km Diamond goal but less than 300hrs solo".

INTER-UNIVERSITY TASK WEEK

This will again be at Lasham, the provisional dates being July 28-August 4. It is open to students from any university or polytechnic with single or two-seater aircraft. Experienced PIs are also eligible to fly with student P2s. The event offers excellent cross-country and competition experience for all pilots, whilst the emphasis is on flying for fun.

If interested, send an address, to which full details and registration forms may be forwarded, to David Keene of Imperial College GC, c/o Imperial College Union, Prince Consort Road, London SW7.

A NEW COMPANY

The aircraft/glider radio business known as T. A. McMullin & Co has been taken over by T.R. Aircomms of Huntingdon. (See p55.)

Colin Dews, chief executive, reports that they will be initially manufacturing 50 of Mac's latest design TM721. The intention is to expand the existing aircraft radio rental business and also to replace the older TM360 radios with the TM721 when the present rental agreements expire.

An excellent level of service will be offered by T.R. Aircomms for the TM721 by replacing by return of post, any radios which develop faults.

GLIDING CERTIFICATES

ALL THREE DIAMONDS

No.	Name	Club	1983
155	S. N. Hutchinson	Cranwell	29.12
156	J. D. Benoist	Clevelands	29.12

DIAMOND DISTANCE

No.	Name	Club	1983
1/231	J. M. Bishop	Bicester	13.6
1/232	C. J. Evans	Booker	3.8
1/233	T. J. Murphy	Buckminster	3.8

DIAMOND GOAL

No.	Name	Club	1983
2/1262	P. Swoffer	Lasham	18.10
2/1263	S. J. Pepler	Swindon	3.8
2/1264	J. R. Hawkins	Wyvern	3.8

DIAMOND HEIGHT

No.	Name	Club	1983
3/617	J. L. G. McLane	Yorkshire	15.4
3/618	G. Martin	Culdrose	26.10
3/619	S. Mulholland	Four Counties	5.10
3/620	D. M. Campbell	Eagle	28.12
3/621	P. Fincham	Cranwell	30.12
3/622	S. N. Hutchinson	Cranwell	29.12
3/623	J. C. R. Rogers	Cranwell	29.12
3/624	A. M. Thomson	Two Rivers	29.12
3/625	C. C. Sherlock	Clevelands	29.12
3/626	M. Wood	Cranwell	28.12
3/627	J. D. Benoist	Clevelands	29.12
3/628	D. West	Lasham	10.10
3/629	C. J. Terry	Cranwell	28.12

GOLD C COMPLETE

No.	Name	Club	1983
980	M. J. Young	Booker	27.19
981	D. Thomas	Bristol & Glos	3.10
982	P. G. Becker	Cranwell	28.12
983	G. S. Foster	Cranwell	30.12
984	P. Fincham	Cranwell	30.12
985	S. N. Hutchinson	Cranwell	29.12
986	G. F. Bailey	South Wales	27.11
987	D. H. Ramsay	Clevelands	29.12
988	C. C. Sherlock	Clevelands	29.12
989	A. D. Stenton	Fenland	29.12
990	G. Lungley	Yorkshire	23.10
991	R. J. Walker	Cranwell	30.12
992	C. J. Terry	Cranwell	28.12

GOLD C DISTANCE

Name	Club	1983
P. Swoffer	Lasham	18.10
S. J. Pepler	Swindon	3.8
J. R. Hawkins	Wyvern	3.8
Alison Reilly	Cambridge Univ	28.12

GOLD C HEIGHT

Name	Club	1983
D. J. Lawrence	Lasham	23.10

BGA ACCIDENT SUMMARY — Compiled by KEITH MITCHELL, Chairman, BGA Safety Panel

Ref. No.	Glider Type	BGA No.	Damage	Date Time	Place	Pilot/Crew Age	Pilot/Crew Injury	Pilot/Crew P/Hrs	SUMMARY
137	K-6BR Piper Super Cub	G.ARAM	N N	25.5.83 ?	Ringmer	27 60	N N	43 1000	Glider pilot pulled up after believing he had released from aerotow, but rope was still attached. Super Cub's tail pulled up and weak link in rope broke. Map holder (rigid board) in tug fell into rear cockpit preventing full movement of stick to right. Landing made without damage.
138	Pilatus B-4	1823	S	18.8.83 17.15	Thruxton	42	N	66	On aerotow ground run in very light crosswind glider swung towards side of runway. Wingtip touched long grass and glider ground looped severely. Tug pilot released rope.
139	Dart 15	1181	M	23.7.83 13.00	Billingham				Towed trailer snaked, jack-knifed, then toppled on its side. Glider fuselage came free and damaged wings.
140	Vega	2682	W/O	21.8.83 1.30	Newsham	39	M	954	Field selection left far too late. Glider crashed through hedge into potato field then cartwheeled causing a write-off.
141	ASW-19	2727	S	7.9.83 15.35	Thruxton	57	N	170	First flight on type. Pilot briefed on possibility of confusing undercarriage and airbrake operating levers. In circuit pilot lowered undercarriage and then raised it believing he was operating airbrakes. Sideslipped, overshot landing area and landed up at high speed, groundlooping.
142	Silene	2548	S	20.8.83 18.15	Marchington GC	48	N	530	Undercarriage collapsed after trainee pilot stalled glider on approach before instructor could take control.
143	Std Libelle	1752	S	14.8.83 17.00	Husbands Bosworth	24	N	530	After crossing the competition finish line pilot attempted a 90° turn followed by a 180° turn. Due to insufficient speed, using brakes and still having some ballast on board aircraft dropped heavily breaking the fuselage.
144	Vega	N/K	N	22.8.83 14.50	Long Mynd	32	N	105	Two pieces of loose flock prevented the airbrakes from opening. Pilot made successful landing using full flaps. Suspected that flock had been displaced after bumpy take-off.
145	Bocian IE	1901	W/O	1.9.83 N/K	Nympsfield	56 25	F F	540	Aircraft spun off slow right turn following a cable break at about 250 ft.
146	tS-32	—	W/O	17.9.83 16.40	Pen-Y-Fan	35 56	N N	716 3000+	Aircraft believed to have flown into rotor of wave; crashed on to mountain and slid 400ft backwards before coming to rest. Fuselage broken in two places.
147	Kestrel 20	1946	M	12.9.83 14.30	Parham	42	N	102	Pilot made low approach at high speed with half landing flap into part of airfield leaving about 180 yards for landing. At low level banked to right, wing touched ground and glider groundlooped through 180°.
148	Blanik	1500	M	27.8.83 14.00	Boroughbridge	63	N	16	Pre-Bronze pilot lost sight of airfield while soaring in hazy conditions. Decided on field landing in good time but did not recognise the danger of tractor wheel ruts in a stubble field. During the ground run the undercarriage was damaged.
149	K-7	1622	M	4.9.83 14.44	Condor	45	N	128	On winch launch glider entered patch of low cloud. Pilot lowered nose and released cable but cable parachute billowed open and wrapped itself round the starboard wing causing damage to wing and canopy.
150	Nimbus 2B	336	M	17.6.83 17.30	RAF Lyndholme	41	N	3425	Field landing. During ground run the glider ran into a patch of longer grass adjacent to starboard wingtip and it then completed a lazy groundloop through just over 90°. Derigging revealed a broken ball race bearing and inspection brought to light suspected damage to the tail.
151	K-14	G-AYRN	S	13.8.83 17.30	Dunstable	49	N	544	High ambient temperature, uphill take-off run and briefing to hold stick fully back led to excessively long ground run. Aborted the launch and landed heavily.
152	Cirrus	1869	S	29.8.83 14.00	Dunstable	49	M	176	Pilot tried to lift glider off the ground before flying speed was reached. After bouncing several times pilot aborted the launch and trying to land on the airfield turned at too low an altitude and cartwheeled.
153	ASW-19	2760	S	25.9.83 10.30	Dunstable	50	N	86	Making a lower than normal base leg pilot concentrated attention on avoiding obstructions and allowed glider to stall from 200ft resulting in an undershoot situation. Situation deteriorated by incorrect use of brakes.
154	Mosquito	2225	M	20.8.83 16.00	Long Mynd	35	N	200	After being caught in a storm pilot returned to the site. Glider overshot on approach, bounced and then ran into bracken where it groundlooped.
155	T-53B	1512	S	18.9.83 14.20	Dunkeswell	43	S	1178	After autotow P1 executed loop, chandelle and low pass downwind. Pulled up onto short base leg. On initiating final turn observed intended landing area blocked by taxying aircraft. Turn tightened and attempted to reach alternative landing area into wind. Wing dropped and glider struck ground in stalled condition outside perimeter.

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M. J. Young	Booker	27.10
L. McKelvie	Ulster	11.9
F. Davies	Staffordshire	17.10
W. Stark	SGU	20.11
M. J. Orr	Fulmar	17.10
A. R. Greensmith	Fulmar	11.10
D. L. Jobbins	South Wales	27.11
R. B. Ramsey	SGU	27.7
A. McKillen	Ulster	11.9
D. Thomas	Bristol & Glos	3.10
A. M. Hooper	South Wales	27.11
P. G. Becker	Cranwell	28.12
S. D. Cossey	Deeside	26.9
P. M. Kirschner	Bannerdown	30.12
K. Allaway	Connel	18.12
D. M. Macpherson	Deeside	28.7
G. S. Foster	Cranwell	30.12
P. Fincham	Cranwell	30.12
D. Richardson	Booker	10.10
S. N. Hutchinson	Cranwell	29.12
N. S. P. Quirke	Cranwell	30.12
G. F. Bailey	South Wales	27.11
Susan Walmsley	Hambletons	30.12
D. H. Ramsay	Clevelands	29.12
C. C. Sherlock	Clevelands	29.12
A. D. Stenton	Fenland	29.12
G. Lungley	Yorkshire	23.10
R. J. Walker	Cranwell	30.12
E. D. Herbert	Derby & Lancs	29.12
M. D. Smith	Phoenix	30.12
D. Wylie	SGU	8.1
M. F. Cumming	Booker	5.10
F. Walton	Connel	18.12
C. J. Terry	Cranwell	28.12

SILVER C

No.	Name	Club	1983
6585	D. Griffiths	Surrey & Hants	14.8
6586	G. Terry	Newcastle	19.10
6587	G. Stewart	Ulster	22.10
6588	Heather Bateson	Southdown	10.12
6589	I. P. J. Carmichael	Derby & Lancs	4.12
6590	R. C. Smith	Rattlesden	21.8
6591	C. Almack	Yorkshire	17.4
6592	J. W. Thomas	Waikerie, Australia	4.10
6593	L. N. L. Pallister	Peterboro' & Spalding	21.8
6594	P. Mallinson	Bristol & Glos	30.12
6595	Susan Patrick	Four Counties	14.8
6596	Alison Reilly	Cambridge Univ	19.11

Correction: *In the last issue, p33, D. M. Parsons, who completed his Gold C on September 26, was attributed with flying with the London GC but is now a member of Booker and F. Boyce, who gained his Gold height on October 17, was listed as a Midland GC member but is in fact from Staffordshire GC.*

We regret that Philip Jones of Avon, who is Gold C No. 976 and gained his Gold height on October 28, was listed as P. R. Joives.

OBITUARIES

PAUL ADORIAN

One of the founders of the Imperial College GC, Paul Adorian, who has died at the age of 77, appears in a photograph at the head of Club News in S&G for February 3, 1933 (my first issue) flying the Club's Dagling, open but for a fairing behind the pilot. He was later to be active in the formation of the British Interplanetary Society, but most of his career was spent in television.

A. E. SLATER

STUART FURSMAN

On going to press Norman Ellison sent us the sad news from America of the death of Stuart Fursman. Born in 1927, he was an aeronautical weights engineer with Vickers Aviation Ltd before emigrating to America in 1968 and joining the Boeing Commercial Airplane Co.

Stuart started gliding in 1946 and for many years was an ATC instructor at Booker airfield as well as a power pilot. We send our sympathy to his wife and two children.

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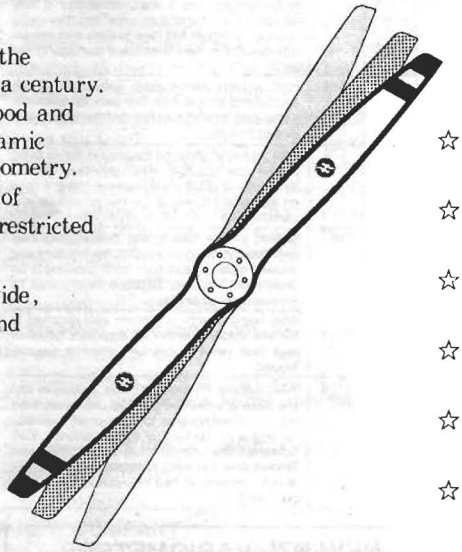
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156	Beagle Husky		S	25.9.83 15.20	Crowland A/F	46	N	348	Whilst proceeding to the washing area the tug taxied into the side of a parked car.
157	K-21	N/K	M	24.9.83 17.16	Long Mynd	47 22	N N	1150 27	At instant of take-off the rear canopy flew open — the entire canopy transparency detached from the frame. "Difficult to close" not properly locked shut.
158	IS-32	N/K	W/O	17.9.83 16.40					Further information on 146.
159	K-7	2306	M	11.9.83 14.00	Ringmer	29 16	M M	224 7	After simulated launch failure P2 took appropriate action to land ahead. Round-out left late despite prompting from PI who took control too late to prevent heavy landing on main skid.
160	K-6E	1546	S	29.8.83 16.00	Lasham A/F	41	N	180	Pilot practising full spin and recovery. During recovery used excessive forward movement on stick and in ensuing dive P10 developed. Recovered from dive again with excessive elevator movement culminating in tailslide. Regained level flight and landed. Examination of airframe revealed serious overstressing.
161	Sport Vega	2672	M	28.8.83 19.38	Lasham A/F	37	N	40	Bounced slightly on touchdown in turbulent crosswind. Second touchdown on bump in ground cracking mainwheel fairing.
162	T-21	884	M	20.8.83 17.54	Woodford	N/K	N	¼	After an "overshoot" situation a wingtip hit a marker board causing the aircraft to groundloop.
163	Astir CS	2186	M	15.8.83 17.00	Husbands Bosworth	26	N	440	Undercarriage collapsed after landing heavily from about 5ft. Accident believed to be associated with heavy landing/ground loop incident six launches earlier.
164	LS-4	1568	M	13.8.83 16.00	Husbands Bosworth	39	N	1200	Marginal final glide ended in wheels-up landing in standing wheat resulting in scored bottom of fuselage.
165	K-6CR	1323	M	12.8.83 N/K	New Arlesford Nr Lasham	24	N	40	Tailskid broke off after hitting a large flint during a field landing.
166	K-13	2191	M	11.8.83 17.20	Lasham A/F	47	N	400	Landed slightly taildown and keel at rear of fuselage caught edge of path crossing landing area.
167	K-21	2702	S	8.8.83 18.05	SW of Lasham	26	M	124	Broke off final glide into 15kt wind at about 600ft agl to land in stubble field. Final turn late and low and sink encountered perhaps due to slope. Undershot into downwind boundary of selected field.
168	Pilatus B-4	1929	S	4.8.83 15.10	Aston Down	35	N	464	After touchdown in gusting wind glider became airborne again, drifted sideways and after second touchdown wing hit one of several large straw bales on airfield.
169	Mosquito	?	M	21.7.83 14.00	Lasham A/F	59	N	184	Pilot underestimated effectiveness of airbrakes and undershoot developed on approach. Reluctance to close brakes because of briefing resulted in landing in standing crop with groundloop.

F = fatal; S = serious; W/O = write-off; M = minor; N = nil.

BOOK REVIEWS

History from the Air by Richard Muir, published by Michael Joseph Ltd at £15.95.

A new book of TP photographs has been produced for cross-country glider pilots. At least that is what I thought when I first opened this beautifully produced book. Task setters will no doubt rush out to buy a copy and if you want to bone up on your navigation as well as learning more about the background of the UK, it will entertain and educate you for hours.

The Cambridge University Committee for Aerial Photography having during the last 35yrs built up a collection of several hundred thousand aerial photographs and the book is based on a selection from this store.

Aerial photography has become a vital tool for archaeological and landscape history research, often revealing features impossible to detect from ground level, and Richard Muir takes us on a fascinating tour of Britain with well written notes on each illustration. G.B-S.

Jane's All The World's Aircraft 1983-4 edited by John W. R. Taylor. Published by Jane's Publishing Co Ltd at £55.

Costing £5 more than last year, Jane's is still immensely good value in terms of sheer excellence. It remains the foremost piece of aviation reference literature and is a joy for the enthusiast.

The presentation is always faultless and the 36 pages on sailplanes are always of interest, though it is sad to see the UK warranting so little space these days.

G.B-S.

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Your Letters



IN PRAISE OF CLUB NEWS

Dear Editor,

Please save our club news. I see that Platypus has even the BGA adminstrators on his side (see last issue, p28). Oh dear, I do hope that is the extent of his recruitment.

Club News is high on my list of items to read as soon as I obtain my copy of S&G. Sorry Platypus, much higher than your articles. In fact it would be nice to see more clubs writing in.

KEITH GRACE, **Purbrook, Hants.**

PROMISE OF PLATYPROOF COPY

Dear Editor,

On receiving my S&G this morning I naturally first turned to your Platypage (December issue, p250) and was rather distressed to find myself the subject of something which was definitely not a Plangent Platypodean Panegyric.

We club news contributors are well known not to aspire to the elevated literary Plateax of the Platypodes of this world but we do our Platytudinous best, and I do feel that on this occasion the merry monotreme has put his flat foot in his duckbill. However, rather than regarding such Platophony as mere Platulence I take up my pen, or indeed typewriter, in exercise of my demoPlatyc right of reply and humbly promise to send in Platyproof copy regularly in future.

DELTA SIERRA, **Watford.**

BRITISH TEAM FUND AND BGA LEVY

Dear Editor,

I am writing in response to Barry Rolfe's plea in the December issue, p270, for comments on the BGA levy and the British team fund.

There is no doubt that the levy, since its inception, has caused aggravation with some of our clubs although I believe that they all pay up. If the levy is raised to £1 per member (a rise of 100% with an inflation rate of around 5%) there will be an outcry from the clubs. No doubt they will pay up in the end albeit even more begrudgingly. (See "From the Secretary's Desk", December issue, p270.)

I think that the concept of the levy is a good idea and that the movement contributing as a whole to sending a British team to the World Championships laudable. I can understand the arguments against this but personally I feel that the interest in competition flying and the principle of being represented justifies the expense. How many club members, at all levels of experience, identified with George Lee each time he won the World Championships and used that as a talking point when extolling the virtues of our sport?

The problem still remains that more money needs to be raised to meet the ever-increasing costs. One method of achieving this is to raise a levy against each pilot flying in a competition, Regional or National. No doubt the competition pilot will complain he is paying twice but that is not a bad thing politically as the money is being used for competition funding, albeit at the top level. The political angle is that competition pilots will be *seen* to be contributing to a fund that, if they're good enough, they themselves may benefit from.

I feel that a £10 per competition entry will be a reasonable charge — it is only a small amount compared to the overall cost of a competition. I'm sure that it will not deter the competition pilot although no doubt we will grumble, but who doesn't when money is involved.

In the 1983 season there were 367 competition entries. This would have produced a sum of £3670 towards the British team fund. I propose that a £10 levy be made against each competition entry and that the club levy, if it has to rise, be kept to a minimum, *ie* 75p per member?

J. D. BENOIST, **Northallerton, Yorks.**

(Although Ben is a member of the BGA Competitions and Badges Committee, this is his personal view and doesn't necessarily reflect committee policy. ED.)

NOT SUCH A BAD DEAL

Dear Editor,

John Holland's article in the last issue, p19, was obviously intended to be provocative and deserves a response. It seems to me that he is saying that the amateurs elected by the club members are not producing satisfactory results. This may be true, but they are the people the members want, or they may be the only ones willing to tackle the job. He does not say how he proposes to alter the electoral system to remedy the situation.

I agree with many of the things John writes about in the article, but investigation into the indictment of the average gliding club's amateur management and the coarse gliding outfits produces some unexpected results.

John is right when he says that the aim of every gliding club should be to provide its members with the best value for money and allow them to fly as often and as cheaply as they can. Therefore a requirement of the club management is to provide the launches to fulfil that aim.

Nationally every BGA flying member in civilian clubs can expect to have 38 launches per year, according to the annual statistics. (See the last issue, p22.) The average club membership is 105 members. There are nine clubs with a membership between 95 and 115 members, giving an average membership of 104. these clubs provide 36 launches per year per member which is two below the national average.

The nine largest clubs have an average membership of 306 and they provide 32 launches per member — six below the national average. The nine smallest clubs have an average membership of 24 and they produce 67 launches per member — 29 above the national average, and by and large provide their launches flying only at weekends, which maybe suggests that the coarse glider pilot is not getting such a bad deal as is implied.

Perhaps John would like to digest these facts (maybe with a little salt and vinegar) and then approach the amateur managers of the North Devon GC (who provided 140 launches per member) for the secrets of high launch rates.

It would be constructive if he could reveal these secrets to the rest of us. No one pretends everything is perfect within their clubs, and perhaps some managements would be advised to look closer to home and try harder to promote a loyal, willing, enthusiastic and supportive membership. With a good club spirit I believe the management's workload becomes easier and the members feel they belong to a worthwhile club.

W. R. CLARKE, **Market Harborough.**

THE FUTURE OF GLIDING

Dear Editor,

With respect to the recent article (see December issue, p267) prophesying the demise of the club and the rise in the number of private owners, perhaps there is another possibility. The best gliding in Europe currently to be had is at Vinon and Fuentemilanos and if you are a private owner you can trundle down there by car with your trailer on the back. Alternatively you can fly to the nearest airport and fly the gliders at the site; there are 23 at Vinon and about 12 at Fuentemilanos.

This course of action is the only practical means of visiting the USA, South Africa or Australia and New Zealand. A retired airline pilot can set up his own site with a tug, or two-seater and a couple of single-seaters and take it from there. Perhaps with more integration you can get a package for the consumer with more frills thrown in such as transport accommodation and other leisure activities like swimming and sailing. Possibly an organisation like Club Mediterraneé might look at it.

Competitions are the best fun in gliding but after you have spent a few weeks at some sitting in the rain and getting no tasks you get to prefer visiting a foreign site where a 500km triangle counts as local soaring. Currently ownership is more attractive than hiring because hulls have appreciated but this trend may not continue. Hiring means less hassle — hiring skis or sailboards is currently a better deal and it may happen for gliders in the future as well.

BRENNIG JAMES, **Marlow, Bucks.**

EQUALITY IN GLIDING

Dear Editor,

Like many other female glider pilots, I take the question of equality in the sport very seriously. Being fairly new to the gliding world, I find it amazing that so few women seem to have enough competitive spirit in them to fight to compete on equal terms in one of the few sports in which women **can** do so. (See also p62.)

Why do I have a feeling that every female glider pilot is under a certain pressure to not only equal her male counterparts, but to beat

them? Surely this is illustrated by the fact that there are only two women pilots out of 133 in the 1984 Nationals Priority List.

Come on ladies, let's fight to beat the men and then maybe we will get somewhere!

MICHELLE POWER, **London.**

THE "ROLLER COASTER" EFFECT

Dear Editor,

Many parallels are drawn between the sport of gliding and sailing, and I ask you to consider the following.

When beating a yacht to windward the air to leeward is disturbed and this hampers any boats sailing there. In a large fleet this area of disturbed wind forces any boat wishing to make progress to sail to the extreme edges of the nominal course. This action is called "taking a flyer".

When a sailplane is climbing in a thermal one must eventually fly through the air previously disturbed by any glider below since, of course, one is descending through the air of a thermal which is rising.

Could this then be the reason that crowded competition thermals produce a "roller coaster" effect not usually observed when two gliders at the same height share an otherwise empty thermal? Could it also be the reason that when a pundit pulls up through a gaggle and moves on, *ie* takes a flyer, he may only find a thermal of similar strength but because it is pristine it will lift him faster? Perhaps it could be the reason that I can sometimes climb to the same height as a Booker pundit but not through him?

Should this observation prove correct and armed with this knowledge there is no doubt I shall win some competition days this year! Ah such is the stuff winter pipe dreams are made of!

DOUG EDWARDS, **Langley, Berks.**

VOR COMPUTERISED

Dear Editor,

I read with interest the article by Peter James in the December issue, p248. I also experimented with the use of VORs but I belong to the competitive days when projected distances along a downwind line with end targets were in fashion, followed by O/Rs or triangular courses, and time had little meaning. The development of sailplanes with penetration rightly altered this fashion, but by this time I ceased to enter competitions.

To me competition flying of the Regional type was a great attraction in that my club had not restarted after the war. My flying during this period having been transferred to the CCF/ATC and then private activities with Olympias, Darts, Skylarks, ending with Kestrels meant I usually had a good fortnight of friendly competition with contemporaries of other clubs. It was really only after I had ceased to fly in competitions that I started to experiment with VOR, and this was before the computer age.

I bought a very cheap second-hand VOR, fitted it to the bottom left hand corner of my Kestrel's instrument panel with a V shaped wire aerial, point forward, black taped to the instrument panel cover and parallel to the horizon, and obtained quite reasonable results from heights usually 1000ft and above. It called for knob fiddling often at times inopportune, so the thought of Mr James' development certainly sounds most attractive.

Nevertheless the system was somewhat simplified as follows: By securing the relevant area of the map to a very thin piece of plywood marking the VOR stations with "stick on" radial compass lines, pinning elastic to the centre, a short pin at the other end gave me a means of quickly transferring the instrument reading to the map. Crossing points of the elastic effectively gave the position. (I borrowed the elastic from the wife. She called it "sheering" elastic, very stretchable with a black fine cotton covering, the diameter being less than a millimetre.) I first experimented with this on our own airfield which had, at the time, an unofficial but much used VOR which allowed me to land in questionable weather by overflying the station and thereby positioning myself. I also experimented during my annual visits to Shobdon and found it most effective at heights above 1000ft.

There were three classifications of pilots. Those who never got lost, those who always got lost and liars. The demarcation between these three groups is never really clear. With the development of instruments, speed flying and numbers of aircraft, the days of fumbling are well and truly over and I feel that further developments on the lines outlined by Mr James are essential. Whether at this moment in time such an instrument is acceptable in competition flying would need to be clarified. It would certainly add to safety.

SIR LEONARD REDSHAW, **Askam-in-Furness, Cumbria.**

LITTLE RESEARCH

Dear Editor,

I was interested to read in the article by Peter James about the use of liquid crystal displays in glider instrument panels but amazed at the trouble to enable them to work at low temperatures. It occurs to me that barely any research has gone into the uses of LCDs and their requirements in the glider cockpit.

I work for Racal Research and I am involved in the quality of our LCDs. Our low temperature LCDs are filled with a liquid crystal which will withstand temparatures of — 40°C. there is no need for heaters which take up extra valuable weight and room.

JANE NASH, **Newbury, Berks.**

THE TENDER TRAP

Dear Editor,

The articles on area navigation systems and microprocessors (June issue, p116 and December issue, p248) point to a trend in glider instrumentation.

Wave is being used more and more for cross-country flying and electronic navigation aids are being fitted to gliders and used in wave flying. I suggest that this trend is a tender trap. The aid is used initially as a back-up to visual reference; confidence is gained in use, leading to extended utilisation over areas of total undercast until the pilot accepts complete dependence on the aid.

Thermal borne cross-country flying is basically fail safe in that when conditions deteriorate the glider does not remain airborne. The nature of wave flying is that it is done over or near high, unlandable terrain, it is not fail safe and the system's reliability must be of a high order. A single navigation aid powered by a single power source is not adequate. It is with good reason that even the smallest commercial aircraft has duplicated navigation instrumentation and independent power sources. I would like a fiver for every time I have had to enter a navigation aid unserviceable in a power aircraft technical log.

Glider supply duplication is easy and cheap. A 720 channel radio will act as a duplicate aid in certain areas by plotting magnetic bearing from two or more base stations. For instance in the Aboyne area Leuchars and Aberdeen can be used. A more satisfactory approach would be a relatively cheap transponder powered from an independent source. This, with a 720 channel radio, would enable ground radar to vector a glider to a suitable area for descent. Coupled to an inertia switch it could be designed to work as a distress beacon, a feature the Austrians are already demanding.

R. H. WRIGHT, **Shepshed, Leics.**

MORE COMMENTS WANTED

Dear Editor,

Regarding the article by Derek Piggott in the last issue, p14, to help overcome the possibility of overstressing the airframe in manoeuvres such as stalls, spins and aerobatics I would be interested in hearing comments from other instructors.

My suggestion is to include in the HASL checks another A which represents "hand on airbrakes." If then the speed in any recovery appears to be increasing rapidly, **with caution** the airbrakes may then be **eased** out smoothly giving the pilot more thinking time. This then gives the pilot a possible sense of comfort in the knowledge that the rate of speed increase is greatly reduced. As the normal flying attitude of the glider is approached the airbrakes can then be eased back into the locked position. This hopefully would then give students more confidence in unusual flying attitudes.

IAN G. SMITH, **Hailsham, Sussex.**

TEMPTING TRAINING AIDS

Dear Editor,

We do have a problem ensuring club members are up to standard, especially on safety matters, and like Derek Piggot (see December issue, p252) I have used tapes and slides extensively as training aids and entertainment. With a little forethought it is possible to arrange a tempting training sequence which can be sandwiched between less demanding sequences. If it is made too clinical the audience tends not to challenge the text unless prompted, and it is the discussion that highlights whether the material is satisfactory or not.

It is possible to cover all aspects of the sport and there is a demand by public bodies

for guest speakers. So here we have the opportunity to get amongst the public and spread the gospel of gliding at a time that could be critical to our development.

Apart from pure training talks and general interest sequences, one aspect I find popular is to produce a mini documentary on a particular club. They are useful to show on non-flying days and introduces members pictorially to an associated club. The club concerned are also pleased to see the sequence, especially if you are highlighting activities they have failed to observe.

The main requirement is to get continuity and as Derek remarks, this is the time-consuming bit. It is often difficult to get a picture to illustrate a particular point, especially on safety matters (who has ever managed to photograph a cable hang-up?) so you sketch what you think can go wrong and photograph this to make a colour slide.

By using tapes or tape/slide sequences you can plan the message you intend to put over, rather than giving an impromptu chat when a vital piece of material might be omitted.

TONY KNIGHT, **Cheshire.**

INTENSIVE PARACHUTING ACTIVITY

Dear Editor,

On what grounds does John Williamson "presume" that the parachute DZ at Weston-on-the-Green is not active above 2000ft at weekends? (see December issue p263.) On the contrary, parachuting activity is intensive, from twin-engined Islanders, commonly up to 9000ft and occasionally 12 000ft, even though the airway base is now at FL85. We at Oxford GC have repeatedly warned of this *via* the Club News in the past few years. Conversely, the major activity on midweek days is military and lower-level from Hercules transport aircraft. All may be "well" as far as cross-country pilots from elsewhere are concerned, but we have to face the barrage of complaints and additional restrictions to our operation.

The Day 1 task at Husbands Bosworth not only conflicted with us, it went perilously close to USAF Upper Heyford on the day of their annual flying display. At the end of briefing I was left speechless at the unnecessary risks being taken.

PHIL HAWKINS, **Oxford**

John Williamson replies: I was wrong in my presumption. The **UK Air Pilot** is quite specific. The Weston Danger Zone (D129) is active to 12 000ft at all times, for "parachute dropping/balloon flying". A wider issue is raised, however. It may be misguided and foolhardy but it is not against the law to fly in D129. It may well be against the law to try to control aerial traffic on a radio channel allocated exclusively to another branch of aviation. It *is* against the law to use foul language in the process! My sympathy is with Oxford GC if that is the behaviour they have to contend with all the time and I am sure we will all bear their difficulties in mind next time we are passing Weston.

THE ESSENCE OF ENTERPRISE

Dear Editor,

After reading my own article in the February issue, p8, I thought I should publish a warning in the form of a small postscript lest some unsuspecting pilot were to find himself in trouble.

My reference to a maximum height asl at one point in the flight of 14 000ft should be read with the caution that it is inadvisable to go above 12 000ft without oxygen unless you know your own limitation — and the best way to check that is to wangle a trip in an RAF altitude chamber.

Further I understand it is now recognised the question of oxygen starvation at height can be complicated by the fact that hypothermia causes symptoms similar to hypoxia. It therefore seems possible that if you are both cold and high — something which can fairly easily happen in wave flying in winter — you are *doubly* at risk. Therefore it would seem sensible to lower your no-oxygen height limitation if you find your body temperature dropping to any appreciable extent.

JOHN CADMAN, **Birmingham**

BADGES GALORE

Dear Editor,

The technique of using radio controlled model aircraft for aerial photography is well established. Various water authorities use these models and they have also proved themselves in archaeological fields and are being tested for a number of other applications.

Photos may be taken from any height from 50 to 1000 plus feet and providing the pilot can stand in the target area, accuracy of aim is assured. Quality can equal that of photos taken from full size aircraft. The method has the great advantage of economy; a complete outfit would cost about £650 and operating costs are around £2/hr.

It was the famous if eccentric Scandinavian modeller, Loof Lirpa who discovered the most remunerative use of the technique, helping sailplane pilots to win competitions. For a price Loof would take the sailplane pilot's camera and drive round the course, launching the model at each TP and taking a photo of the TP. The sailplane pilot would either find lift and stay in it or even land at another gliding club and wait for the right time to arrive back at the contest field where Loof would hand over the camera, the sailplane fin would be photographed and the camera handed in in the normal way.

Loof Lirpa not only paid for all his modelling expenses but gained all his gliding badges at no cost to himself through this service.

I am pleased to be able to tell aspiring contestants that this service is now available in this country. Applications for the coming season are being accepted in strict confidence. Applications should be written in pencil on the back of three £50 notes and sent to *Loof Lirpa Enterprises (UK) Ltd, Fiddle in the Marsh, Rutland.*

REPROFILING OF OLD GLIDER WINGS

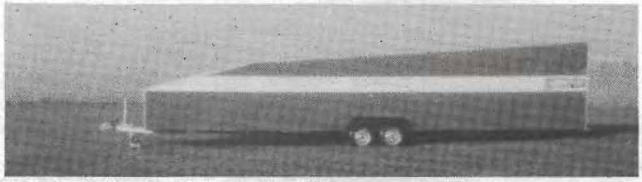
Dear Editor,

It seems likely that blown wings will have much better performance than the ones we have at present. If they became the fashionable thing to fly there will be a lot of obsolete gliders lying around. A small industry might arise reprofiling the old wings and fitting them with the appropriate plumbing so that the performance comes up to the new wings.

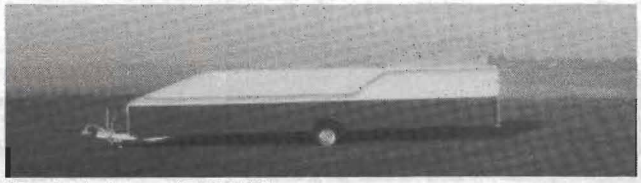
The situation might arise that one could buy an old Kestrel 19, spend £3000 getting the wing done up and end up with an L/D of about 1:50, compared to a cost of £20 000 for a new aeroplane.

BRENNIG JAMES, **Marlow, Bucks.**

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50 YEARS AGO

A. E. SLATER

On April 22, 1934, Eric Collins was at last able to make Silver C distance, which he could not attempt on March 18 because he was up with a passenger when that great cloud street arrived and two soloists went off, Philip Wills making 58 miles to the East Coast. Collins's father had given him a Rhönadler; Peter Riedel has criticised this choice, which was on my advice because, as far as could be discovered, it was the only high-performance type in quantity production. The flight was to Rayleigh in Essex, 52 miles, reaching Silver C height on the way. He had already done the five hours, so this got him the first British Silver C badge, No. 26 on the international list, just after Hanna Reitsch, No. 25. Philip Wills had still to do the duration, and had to wait quite a time for a west wind; he eventually got No. 46 on July 5.

Modified Falcon 2

Other events were two expeditions to North Wales, organised by Espin Hardwick, the new BGA chairman. In early May he took his Falcon 2, specially modified for him by Slingsby, to a point on the east slope of the Clwyd Valley, which runs inland SSE from Rhyl. Here, in a WSW wind he climbed 4000ft directly in the lee of Snowdon, and as there were lenticular clouds about, he suspected he had got a lee wave set up by that mountain. Fred Slingsby, gazing up at him, said "That's what I *call* a chairman".

Later, at the end of May, Hardwick organised a weekend expedition to a hill overlooking Prestatyn, the next town to Rhyl, and the Saturday brought a soaring wind from the sea, and soaring was done in Hardwick's Falcon and by Jack Dewsbery, in my Blue Wren, which I had just bought and we had picked up on the journey there. Of course all Prestatyn saw it and a vast crowd came walking up the hill; its leader asked "When are you giving another demonstration", evidently imagining that there could be no other explanation for wanting to soar.

The same word was used when Mr Hardwick, on his first attempt to find a site for the Midland Club on the Long Mynd was sued by the owner of the shooting rights; the judge made an order forbidding "Gliding demonstrations".

Another event of this period was an attempt on the world duration record, then about 21hrs, by Flying Officer E. L. Mole (as he was then) on May 14. He took off from Dunstable in a Slingsby Falcon, intending to stay up all night; an electric light was fixed just under its nose. However, at 3.50pm he had to land because an approaching cu-nim had to feed itself by reducing the wind below soaring strength. However, it was a British record and got into the newspapers; one Lancashire editor thought his readers ought to know what a glider looked like; he must have sent someone to the public library to find out, for he published a drawing of a Chanute biplane with the pilot's body and legs dangling below; his readers must have wondered how anyone could go on doing that for eight hours.

Crested Wren

A word (or more) about the Wrens. Corporal W. L. (Bill) Manuel, formerly of the RFC before it became RAF, had built several primitive gliders, so when the big demonstration was laid on in 1930 on the South Downs, he was there, and was noticed "running over" the Professor with a tape measure, the only high performance type then in production, brought over from Germany with its pilot Magersuppe by the *Daily Express*. The result was the Crested Wren, which was not very like its "prototype" but flew a lot at Dunstable and elsewhere in the hands of its three owners.

Then came the Willow Wren, looking more like a small Professor but, like it, liable to spin. Once at the Wasserkuppe I and others saw a Professor in a steep spiral dive disappear below the crest of the ridge. We all rushed down the hill and saw it perched on a tree-top; the pilot walked about thereafter with his arm in a sling.

The Willow Wren, painted yellow, was bought by a syndicate; one pilot spun into Dunstable Downs and knocked out some of his teeth. Later it spun into Sutton Bank and damaged its pilot's spine. Known as the Yellow Wren, it was then rebuilt with safer wings, painted green, and safely flown by the Cambridge University GC.

Manuel's next Wren was painted blue and was tried out safely by several pilots. Its price was £95 and I bought it, plus £20 for the trailer; this was, I think, the first totally enclosed trailer — so totally enclosed that the Wren began to dry up, especially when the sun shone on its trailer. It was re-conditioned and I sold it to a South African group. There it spun in off its first launch, breaking its pilot's legs. Somebody bought the wreckage, rebuilt it at the end of the war, and it spun in off his first launch, killing its pilot.

One cause of its tendency to spin was, I suspect, that the surface in front of the fuselage sloped steeply down, giving the pilot the impression that the landscape was nearer than it should be. In England I did little flying in it, but Jack Dewster took it into a thunderstorm at Sutton Bank.

A possible reason why it spun in South Africa but not in England has just occurred to me. It was stated that the wings had a slight reduction of incidence from root to tip. Did the overhauler who reconditioned it give the wings the same incidence from root to tip?

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MAY 25-JUNE 14: Trans-European Rally, Angers, France.
MAY 28-JUNE 4: Dutch Nationals, Terlet, Holland.
JUNE 2-10: Standard Class Nationals, Nympsfield.
JUNE 9-24: German Standard Class Nationals, Mengen, West Germany.
JUNE 19-28: USA Open Class Nationals, Minden, Nevada, USA.
JUNE 25-JULY 7: European Motor Glider Championships, Räyskäla, Finland.
JUNE 27-JULY 8: European Championships, Vinon, France.
JUNE 29-JULY 7: Hahnweide International Contest, Kirchheim-Teck, West Germany.
JUNE 30-JULY 8: Competition Enterprise, North Hill.
JULY 3-12: USA 15m Class Nationals, Ephrata, Washington, USA.
JULY 14-22: 15 Metre Class Nationals, Dunstable.
JULY 17-28: USA Standard Class Nationals, Hutchinson, Kansas, USA.
JULY 28-AUGUST 5: Booker Regionals, Booker.
JULY 28-AUGUST 5: Northern Regionals, Sutton Bank.
JULY 31-AUGUST 10: Inter-Services Regionals.
AUGUST 11-19: Open Class Nationals, Lasham.
AUGUST 11-19: Lasham Regionals.
AUGUST 18-26: Enstone Regionals, Enstone.

(Continued from p75.)

1400hrs, the sky looked superb but seemed to promise more than it produced, so it was not until the second leg, dolphining along the Nordkette above Innsbruck, that I started to achieve a satisfactory speed. I wasn't even startled any more to see the hang gliders doing the same way above me. From there the view of the Mieminger range was mouth-watering and I transitioned quickly to take one thermal off the face before crossing to a massive cumulus above the Tschirgant in the centre of the valley. Suddenly everything was going up an hour too late and if I were to take the longer valley route back *via* Imst and Lermoos I was already at potential final glide height with the TP still ahead. With a slow time so far, I could see only the one means of redeeming the situation, if only partially, and that was to cheat on the alternative, namely by finding a gap in the Lechtaler Alpen and sneak through, rather than climbing over the top to take the direct route back.

Gliding towards the TP I saw a vertical fault on the rock wall to the right of the Grosser Schlenkerspitze and beyond, for a split second, the gap in the mountain at Füssen way to the north. In front of it a 45° slope facing the west jutted out and despite being covered in snow, a fulsome cloud sat above it. I turned the railway station and raced back towards the mountain, sinking inexorably below the crack. I decided if the slope did not work I would have to chandelle up to the left, turn 275° and take the long way back down the valley. The last ½km to the slope I was flying at 120kt in sink, and the fault had disappeared above me. At the last moment I pulled back the stick, and hurtling up the snow field was taken gently and then, with ever-increasing power, lifted mightily up the slope; and as the crack appeared ahead, I was still flying at 90kt with the vario off the clock. Milliseconds later I could see through the fault and the decision was made. I slid silently into the shadow at 70kt, the vertical walls only feet beyond the wingtips and the snow below the keel pockmarked with fallen rocks. I looked up apprehensively but almost immediately was out into a narrow steep-sided valley, winding away gently to the north. What followed was to be an experience of a lifetime.

I started my glide 10ft above the snow and as this gradually gave way to scree, then bare rock and eventually grass, I followed it down as closely as I could for maximum speed — 90kt, 100kt — probably at no time higher than 30ft above the valley bottom for 30km, until rounding the final bend the ground fell away steeply to the gliding club at Reutte below and Füssen 12km beyond. This time the glide path was right and it wasn't until I crossed the wood at the edge of the field that it came into view seconds before I crossed the line. Elation and a sense of wonder rendered my speed of 94km/h and 9th place for the day irrelevant.

In the evening a superb feast in the hangar was followed by speeches, prizegiving and dancing which lasted till the small hours. To sum up, an unforgettable week, superlative flying, spectacular scenery and a delightful crowd. My thanks go to the organisers, the Füssen and Markt Overdorf Gliding Clubs, for their hospitality along with my entry form for this year.

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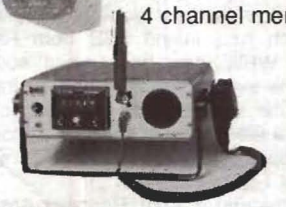
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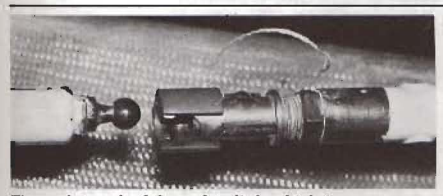
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Safety Collar for Ball and Socket Joints

JOCHEN EWALD of Aachen, West Germany, sends details of a small device which should help to prevent accidents through faulty aileron connection of the "l'hotellier joints" (ball and socket joints).



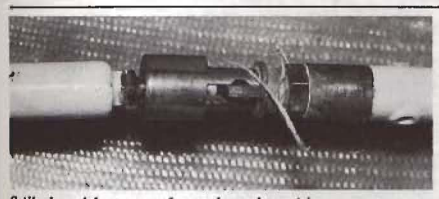
The socket end of the safety link which is open.



Open with the tubes connected.



Closed



Still closed but seen from the other side.



Open and seen from another position.



Closed and locked.

The additional protection collar was produced by Viktor Uerlings and approved by the German CAA (Luftfahrtbundesamt) back in 1979. As any handyman could make these protection collars easily at home the specification has been included for guidance. The raw material and details on costs can be obtained from V. Uerlings, 5160 Düren, Frankenstrasse 73, West Germany.

Description: The collar is made out of (red) 16mm Hart-PVC "Trovidur" material which is unaffected by lightning strikes and can withstand temperature difference of −44°C to +50°C. The manufacturer guarantees undamaged collars for two years after which period they should be replaced.

To obtain the required collar friction a hole of 10.5 or 11mm is drilled into the circular material. A wedge of about 4-5mm is then cut out so as to form the protection collar.

Fits accurately

The edges of the lengthwise cut need to be filed with a thin key file in such a way that the ball end of the "l'hotellier joint" fits accurately and can just be pulled through the slot.

The collar slides onto the socket end of the "l'hotellier joint" so that the gap lies along the ball housing in the socket.

A small rod is glued to the top of the collar in which a 1.5mm hole is drilled. A short piece of safety wire is attached to this with the other end tied behind the socket end of the joint.

The "l'hotellier joint" is then connected and secured in the usual way. Now the protection collar is turned through 180° — in this position the ball end of the joint cannot separate from its housing even if the securing of the original "l'hotellier joint" fails.

TO SPAIN AGAIN . . . and no rain on the plane

FRANCIS HUMBLET

For the British, 1982 was the year of Fuentemilanos in Spain when some 20 pilots and crews made the great six week BGA safari there in June and July. The results were a few 500km and heights in excess of 5000 metres, with John Williamson topping 8000 metres. But unfortunately there were logistic problems between various groups operating from the site. On some days the only means of launching more than 40 gliders was by the Oerlinghausen School winch and one can imagine the irritation that caused. Other problems were caused by the precarious financial situation on the site.

Left with no airfield

Eventually a deal was struck between the Oerlinghausen School and the owner of the airfield. Oerlinghausen would have sole use of the site in 1983. The Spanish group, led by Manuel Leon, was left with gliders and tugs but no airfield from which to operate. This led to the latter's frantic search for another site.

The first possibility was an airfield, with all the facilities, in the Valle del Tietar, 100km west of Madrid. Preparations were well advanced (remember the advert in S&G last January?) before the farmer who owned the field changed his mind, after considering the sight of bikini clad foreigners camping on his land! So the search went on . . .

By March an agreement was reached to use a private airstrip with two grass runways at Campolara, 35km west of Fuentemilanos. A solid building was erected to house toilets and showers. Water tanks are refilled daily and the story goes that a British pilot used the whole daily supply for one shower! The nearest telephone is in the local bar in the next village. However, the main thing is that there was flying between June and September 1983. By Spanish standards the weather was bad but pilots from Switzerland, Holland and the UK were launched without delays by the Robin tug.

Accommodation is available in nearby villages and ranges from a room in a shared house to one in a local hotel. Camping on site is also possible. Meals taken in the local bar never exceed £3.00.

This season it is hoped there will be some improvement based on last year's framework. From the launching point of view, a Minerva may also be available in addition to the Robin. A two-drum winch, powered by a V8 Oldsmobile, is now on site. Launches will cost around £8 to £9 for aerotow and £4 for the winch.

The glider fleet consists of an LS-3 at 25p/min, a Std Cirrus, K-8, SF-27, Blanik, IS-28 and possibly an IS-29, all at around 15p/min.

Flying normally starts between 1300 and 1700hrs and lasts until 2100. The site is 3300ft and the cloudbase (if any!) is between 9000 and 12 000ft. On a good day it is possible to average 100km/h. Diamond heights, in wave, are possible in a southerly wind.

Formalities. Spanish Customs: documents to prove ownership of the glider. Licence to fly your own glider: national licence is sufficient.

(Continued on p97.)



Three wise (?) men of the Essex & Suffolk GC. From l to r, John Whiddett, Les Marshall and Mike Bailey.

CLUB NEWS

Copy and photographs for the June-July issue of S&G should be sent to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, tel 0223 247725, to arrive not later than April 6 and for the August-September issue to arrive not later than June 5.

February 8, 1984

GILLIAN BRYCE-SMITH

AVON SOARING CENTRE
(Bidford Airfield)

Dave Shadrach has joined us as our resident instructor and Alan Wade has come to take over as tug pilot and manager. Our gliders and tugs are being fettled for the season.

Our Janus C went to Portmoak and Aboyne during October with a lot of flying achieved by our members and others. Mike Young (aged 17) and Phil Jones (aged 18) both completed their Gold Cs — is this a UK record?

We welcome visitors wishing to sample the delights of carbon fibre wings and don't forget there is still time to enter our mini-Comp in May.

R.J.

BATH & WILTS (Keevil Airfield)

Twenty people took nine gliders to the Long Mynd in October where we flew in wave. At our dinner in November our chairman, Mervyn Pocock, presented the Club Ladder trophy to Stuart North and the Gordon Mealing trophy to Michael Taylor-Beasley for his hard work on maintaining the club fleet.

Ron Beavan and Martyn Gingell have bought a share in the Yellow 463 which has been with us since 1965. Gill Armstrong has completed her Bronze C.

Winter flying was in wave or on the ridges, punctuated by much hard work on the ground — the clubhouse is being gutted and redecorated.

We plan to hold three *ab-initio* courses lasting five weekends each, in addition to a week in July, as well as at least two Bronze C weekend courses. Instead of a task week we are spreading our competition over four weekends in July with task flying from May 26 to June 3 — visitors welcome.

J.L.

BOOKER (Wycombe Air Park)

Following the coming of the instructors' armchair, a co-ordinated programme of renewals will hopefully lead to a greater awareness of the problems and responsibilities of holding an instructor's rating.

Our congratulations to Barry Rolfe who seemed a bit miffed at being the only person not yet to receive an accolade in the club news (see last issue, p29).

P.R.

BRISTOL & GLOUCESTERSHIRE
(Nympsfield)

A profitable 1983 season has enabled us to have the clubhouse roof replaced. A membership drive is now in progress to maintain the impetus for the coming season.

Work is under way on a second automatic winch, similar to the first which has been in service for nearly a year and is extremely successful. The club had the use of the BGA Twin Astir during December and January. Despite being nicknamed the Concrete Swan it was in constant demand during the mild spell.

A competition committee is planning the Standard Class Nationals, to be held at Nympsfield from June 2-10. Helpers are needed — the more the better!

Congratulations to David Hatch on going solo and to Paul Little on completing a 500km in Australia. However, from his description of conditions there it must have been fairly simple!

J.R.B.

BURN (Burn Airfield)

Congratulations to Dave Goodison on becoming the first Burn trained member to go solo.

The novelty of runways has allowed trials of various forms of launching with only autotow untried. However we have settled back to winch launches with a tractor for cable laying. A runway sweeper has also been obtained to remove the farmer's spoils.

With our close proximity to RAF Church Fenton we have an agreement on airspace restrictions to prevent near misses. Basically we can only go over Selby above 3000ft midweek; below 3000ft you can expect to meet a first solo jet pilot on circuit.

The flying programme is rapidly being firmed up with course dates fixed.

V.F.F.

CAMBRIDGE
(Cambridge and Duxford)

Congratulations to Marshal Papworth for gaining Silver height and duration in wave flights from Sutton Bank. We have had our own share of less dramatic wave at Duxford, enabling several to take advantage of reduced winter soaring charges.

Improvements to our clubhouse continue — our thanks to Richard Maskell and helpers for installing a shower. Our new K-13 is being collected from Germany in February.

P.E.S.M.

CONNEL (Connel Airfield)

Robert Rothnie has made a remarkable recovery after his serious accident last year and flew again in January. We are looking forward to his enthusiastic leadership this season. We are indebted to John McGilvray whose success on the instructors' course relieved the situation during Robert's absence.

Last year was reasonably successful financially thanks largely to the tourists. The club revolves around tourism in the summer and Derek Young has an infectious enthusiasm for ensuring holidaymakers enjoy their new view of our spectacular scenery.

At the Christmas dinner a small presentation was made to John and Derek for all their work during Robert's absence.

Following pressure from the airfield landlords, our 1984 priority is to replace our shanty town of old sheds and caravans with a hangar and we are hoping for a grant.

Congratulations to Frank Walton and Ken Alloway on gaining their Gold heights and commiserations to John Anderson for forgetting to switch on his barograph.

M.G.R.

COVENTRY (Husbands Bosworth)

The principal prizewinners at our annual dinner-dance were D. Sands, R. Stephenson, P. Meads, N. Hackett, M. Guard, J. Langrish, J. Wesley, G. Gothard, C. Woodhouse, N. James, P. Spencer, J. Cooper, L. Franks, S. Cooper, I. Pettman, J. Ellis, J. Walker, F. Pozerskis, J. Horwood and D. Abbey. There was a good turnout for all the parties arranged for the festive season, including the children's Christmas party and the buffet dance on New Year's Eve.

Malcolm Guard and Pete Beardmore had a superb end to the season with 6250ft off the winch into wave in a club two-seater on December 31 to claim the club record for height gain off the winch.

We now have four club single-seaters and four Bocians. Our K-8 has been completely refurbished. The BGA soaring course in late April is already over-subscribed.

N.B.

CRANFIELD (Cranfield Airfield)

The Dark Ages are over. Having existed over the last two years on either nothing or a generator, depending on what was available

at the time, we are now connected to the airport mains supply. During the winter members have been building trailers and decorating the clubroom.

We are planning a repeat of last year's evening courses, air experience flights and a club week in June.

Visitors are welcome by air (planned arrival or otherwise!). Last year two visitors during the week landed on the grass by the side of the main runway. If you have to land, do a circuit in the appropriate direction, on the **north** side of the airfield and land on the grass area in front of the main hangars. Telephone, coffee and chat can be found in the control tower.

D.P.S.

DARTMOOR (BRENTOR)

We were formed on August 8, 1983, and have 26 members, mainly from south-west Devon. During the last few months we have concentrated on preparing a site at Brentor near Tavistock which was last used for flying several years ago. It is said to be an excellent wave site, placed on the western edge of Dartmoor.

We have bought two gliders from RAF St Athan and hope to have them ready for flying this spring. Launching will be by winch as powered aircraft aren't allowed on the site.

New members are most welcome and should contact Peter James at The Royal Standard, Mary Tavy, Tavistock, Devon, Tel Mary Tavy 289.

C.H.

DEESIDE (Aboyne Airfield)

On Boxing Day, Tony Eade flew 52min; John Forrest did even better with 53. Jack Harrison completed his 3870th solo without incident, although CFI, Chalky White, thought his final turn was 10ft too low. Veteran Alan Middleton just failed to beat his personal best of 43 385 on the Space Invaders.

Christmas Day itself saw many pilots and families at the Tanners, an excellent lunch being provided by Mattie, ably assisted in the washing up by the Mrs Coombs, Haynes and White. The afternoon was most enjoyable, with one of the children discovering that balloons would stick to the ceiling by static alone. (Anyone else heard of this?) Earlier in the month, we had our club Christmas party at the Balnacoil, and it was a great success.

The New Year started with snow and yet another Bissett. Congratulations to John and Carol. This family addition precipitated Carol's decision to resign as Chairperson. Many thanks.

K.A.H.

(It is nearly April 1 when this issue reaches you! This is one contributor's protest at what he describes "the trivial nature of club notes" which he thinks are "full of useless, boring achievements of no interest whatsoever to members of other clubs". Ed)

DERBYSHIRE & LANCS (Camphill)

Wave returned in autumn with climbs of around 7000ft agl. In November we had a Mam Tor day (a ridge four miles downwind in easterly winds) when three of the last four gliders scraped back at dusk.

Ken Blake, BGA senior inspector and a partner in Sailplane & Engineering Services Ltd, is our new CFI. Several instructors on early retirement are organising midweek flying on non-course weeks, so if you want to visit us please telephone our steward on 0298 871 270. Parties from Dishforth, Lasham and Altair are visiting us this season.

We had some enjoyable winter parties and dinners with a successful annual dinner-dance.

J.C.S.

DEVON & SOMERSET (North Hill)

There were good reports on our flying and finances at the AGM with a vote of thanks to Chris Slade for all his help over the years on the committee and as overseer of the flying accounts, with assistance in recent years from Jill Groves. We also thanked Terry Jenvey who retired as CFI. His deputy, Julian Hine, has taken over.

Trophies were awarded as follows: Norman Whyte shield (best progress), Eddie Bromwell; Francis Bustard trophy (gain of height), Steve Frank; Kelsey plate (best cross-country) and "Wily Old Bird" (for enterprise) David Minson and the Brian Masters trophy (winning task week) and Club Ladder cup, David Reilly.

Steve Robson, Martyn Fisher, Fred Clarke and Alan Peel have gone solo and Tim Gardner (DG-100) gained Diamond height at Portmoak during our October expedition, topping 20 000ft with other members up to 15 000ft. Visits have also been made to Talgarth and the Long Mynd.

There is concern at the decline in membership, particularly for training, and Gordon Peters, as publicity officer, is co-ordinating attempts to attract new members. Norman Whyte, founder member and president for many years, has written an interesting club history.

With Enterprise at North Hill, six training courses, a cross-country week and two task weeks (June 4-9 and August 6-11) we anticipate a busy season.

I.D.K.

DORSET (Old Sarum)

We've had a busy period of repairing and refurbishing. Our Auster tug has been overhauled and part of the wing recovered, thanks to the efforts of our treasurer and tug master, Barry Thomas, and helpers. An old trailer has been given a new roof and glass-fibre skin, thanks to Colin Maller a retired master carpenter, and his team, and Gerard Dale has given the Skylark 4 trailer some good brakes.

We can no longer afford to run two tugs so our much loved Gypsy engined Auster is for sale. Anyone interested, contact Barry Thomas, 0202 576467.

Our new control van has been in service for some time thanks to the efforts of Jim Linegar and helpers. We are short of new pupils and doing all we can to stimulate more interest. We are planning a longest day, dawn to dusk launching marathon on June 24 when we hope to give air experience flights. A percentage of the profit will go to charity.

Congratulations to John Green, Tony Pattemore, "Lofty" Bigwood and Frank Peters on going solo. Senior citizen Frank, a Mosquito pilot, always had an ambition to glide and went solo after the minimum of launches.

Our Swallow syndicate has moved to a K-6 and happily the Swallow, which has been within the club since the early 1960s, stays with a new syndicate.

Our buffet dance organised by Phil Moreland in January was a great success.

C.A.W.

ENSTONE EAGLES (Enstone Airfield)

The winter has brought a few surprises with thermals in early December and wave just before Christmas. Dave Berol contacted wave from a 1200ft autotow. Although the lift was weak, never taking him above 900ft, he managed a Bronze leg and repeated the performance on the hangar flight at dusk.

A number of members went on ridge soaring expeditions to the Long Mynd in the autumn and Sutton Bank at Christmas gaining many hours of enjoyable flying at both sites.

The C of A season is here and a small team, working under Tony Cox, is refurbishing the fleet. Tony is to get a slice of advanced training this summer as he and Peter Wells have gained places in the BGA Squad Training Scheme. Congratulations to them both and to Geoff Dixon on getting to 17 000ft in wave at Dishforth for Gold height.

G. & F.D.

ESSEX (North Weald)

We have had two very worthwhile expeditions. The one to Aboyne gave Gold and Diamond claims and two durations to complete Silver Cs, while the trip to the Midland GC produced some interesting flying.

We are hoping to gain planning permission to build a hangar this spring, replacing the one we lost in the 1982 fire.

Lionel Callow will again be taking bookings for our flying evenings, Tel 0279 59989.

M.R.T.

ESSEX & SUFFOLK (Whatfield)

Our president, Eric Richards, has gone to Waikerie, South Australia to fly an Aussie summer. In return we welcome Lawrence Paratz from down under who is instructing with us whilst at Essex University for a year.

We have had some good soaring flights of nearly an hour's duration this winter. Local planning approval has reinstated Sunday morning flying. Previously we had to wait till noon before the first launch.

R.C.A.

HAMBLETONS (RAF Dishforth)

We have lost a number of flying days due to wind and snow, but strong wave over Christmas gave Clive Armstrong (Cobra) Diamond height and Sue Walmsley (Astir) Gold height.

Disaster struck the caravans in the gales of January 13, when many were blown over and wreckage scattered over several fields — only a minority escaped without damage. Collecting what was left of members' effects as the snow blew past horizontally, we had the consolation of seeing the glider trailers undamaged and patiently awaiting the spring.

J.P.

HEREFORDSHIRE (Shobdon Airfield)

Contrary to rumour that Shobdon is closing, we are still there to welcome visitors so, if you want your Diamond height, and a try at

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the UK record, Shobdon is very definitely the place. In October Tony Maitland left 4kt lift at 31 000ft. December saw Tony again at 28 000ft and rounding off the year Mike Costin climbed from around 2000ft to 33 100ft, all within ten miles of the airfield. Your turn Tony!!

In October we welcomed Dunstable who had a good thermal, ridge and wave week led by the intrepid "pushing on" John Jeffries and we hope to see them back in March.

Last summer produced a Silver C for John Bastin and Gold distances for Ivor Corkell and Paul Whitt.

Our AGM saw some new faces and our thanks to Tony Maitland as 1983 chairman and Charles Boutcher for his five years as secretary. We welcome our new chairman, John Lord and Tony Greatrex as secretary with Robin James and John France as new committee members. The committee has recommended a new low entrance fee of £25 in the first year and everyone is co-opted into a vigorous recruitment drive.

P.W.

HIGHLAND (Dallachy)

Goaded by Platypus, we submit a long-overdue report. Since our last one, we have two new Bronze Cs, Brian Anderson and Dave Spong. Gordon Armstrong flew his Silver distance and Alan Clarke got his Silver height and distance in one flight. John McFarlane and Mike Rodda took the Bocian to a new club two-seater record height of 13 800ft and climbing.

Mike Flaherty and Gerry Robson have become assistant instructors and Angela Veitch and Trevor Armstrong have attained Full Cat status. Gerry Robson has become a senior inspector and, having re-built the K-8 is now trying to make the two ends of a Skylark meet about its widely-distributed middle. Our congratulations go to them all.

There has been a general increase in cross-country miles flown last season; Trevor Armstrong and Angela Veitch boosted the total when they took part in Competition Enterprise.

After 4½yrs Jim Tait retired as CFI at the end of December. We thank him for all the hard work he has put in, especially during the instructor-lean early years, and we wish his successor well.

R.E.T.

KENT (Challock)

Our annual dinner-dance in late October was well attended and numerous trophies were presented to both pundits and up and coming pilots. Our thanks to the organiser, Gina Kemp, and to Jean and her staff for organising various parties during December.

An expedition to Aboyne was rewarded with Gold heights for Ray Smith and Lenny Parris and Diamond height for John Hoye.

Ron Burgess, Dave Edleston and Hugo Shapland have gone solo; Bill Duck and Steve Noad have Bronze Cs and Jim Perry has completed his Silver C.

Recent additions to our private owners' fleet include a K-6E and another ASW-20.

J.B.

KENT MOTOR GLIDING & SOARING CENTRE (Manston)

Our first Christmas dinner-dance was an enormous success and a satisfactory way to complete our Club's first year of operation in which 14 members went solo and one attained his Bronze C.

Additions to the club include the new Brasov motor glider and an old banger for retrieving the cable — much warmer than the tractor!

Our instructors are to be congratulated on the high standard of their evening lectures and thanked for the enormous amount of preparatory work.

E.S.

LAKES (Walney Airfield)

The year almost ended with a splash when Peter Redshaw landed his Kestrel on the beach after failing to return from a final glide from Black Coombe. Luck was with him as the tide was out and we were able to land the tug on the beach and aerotow him off.

January 1 started the year in great style with all the club single-seaters at 1000ft on the slagbank. The next weekend saw them all at 15 000ft in wave; the two-seaters joined in and even the Falke made 12 000ft still going up, engine off, honest!

E.K.

LONDON (Dunstable)

We are holding a task week from June 16-24. The looney fringe seems to have taken over here with first a rocket-powered glider contest, and now rubber-powered aircraft are all the rage. With luck the season's first thermals should restore some sanity.

We expect to take delivery of the first K-23 in April, which will be available as a demonstrator for any club interested in upgrading their single-seater fleet, and two ASW-20Bs are expected soon. Ron Page has restored a written off K-13, so we now have a two-seater capable of being spun by the heaviest pupil pilot!

We are happy that 1983 was highly successful with courses very well attended. A number of soaring courses of the lead and follow kind were given by J.J. and there will be more this year, so book now.

D.S.

MENDIP (Weston-Super-Mare)

Congratulations to Chris Crabb on completing his Silver C with a distance flight to Nympsfield and to Bob Sheffield on joining our instructors. Ivor Cainey, Peter Jones, Paul Croote, Ian Parsons and Terry Hooper have gone solo, Ivor, Peter and Paul soon gaining both Bronze legs.

Strong westerly winds during the New Year weekend were a good start to 1984 with durations for "Mac" McCollom and Dave Bagshaw, while our chairman, Paul Marsh, set a club record for the highest cable break at 3300ft!

You are all welcome to visit us by road or air, but no powered aircraft please.

H.P.

MIDLAND (Long Mynd)

We have had some enjoyable winter soaring with several good ridge days and plenty of wave giving heights of up to 11 500ft. Our more stalwart members who keep coming despite the wintry weather are benefiting from flying fees reduced for the winter season.

Our conversion to LPG is now complete on both main and retrieve winches and we are highly pleased with the results.

Plans for our Golden Jubilee (1934-84) are going on apace with, in particular, an extra-special task week at the end of August when we will be hoping to welcome plenty of visitors.

D.M.K.

NENE VALLEY (RAF Upwood)

Last year started badly with the K-7 from Stuttgart being confiscated by the Customs in January — and the rest of the year followed suit.

However Neil Scanlon and John Young gained their Bronze Cs but early summer flying was spoilt by the disruption of the move from Winwick to RAF Upwood and club K-2 being written-off on one of the last flights at the old site. This meant the T-21 was working overtime at Upwood until Mr P. J. Rushen kindly loaned us his (ex Italian) K-2B. The best summer flying was in the syndicate K-7 which has been replaced by a K-6.

Bill Scull gave an excellent talk at the AGM. The year finished on a high note with us getting the K-7 back from Customs.

Our thanks to CFI, Joe Seitz, D. Jordan, G. O'Donnell and C. Hooke for their patience and guidance and congratulations to Gordon Reece on going solo.

D.H.

NORTH DEVON (Eaglescott)

Many thanks for the tremendous response to the request in the December issue (p271) for volunteers to fly children during the summer. Most of the offers have come from experienced pilots and instructors with many hours and we hope they will all have an enjoyable week.

On November 5 members enjoyed an end of season barbecue and shoot (using various black-powder weapons) in thanks for their help in our first year.

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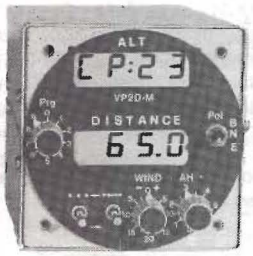
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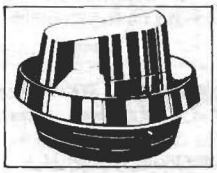
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We start our second season with our own land, a newly completed hangar and workshop, three two-seaters, six single-seaters and the Grob 109 in which the CFI will be running full-time PPL SLMG conversion courses. A syndicate has bought a Rallye 180 tug and the club want to buy a Super Cub 135-180; anything considered. Can you help?

R.A.

NORTH WALES (Pen-y-Parc, Nr Holywell)

Last year was very satisfactory with 2080 launches, a record nearly double our previous best. We also had a large number of first solos, thanks to the continuity and personnel attention to training by Ken Payne, CFI, and his assistant, Ray Bell. The most recent to go solo are Ian Samples, Paul Roberts and Dick Moore, Dick at 65 being our most senior and a founder member who gave much help in the early days.

During the winter Tony Knight has again entertained us with his excellent slide shows.

During December Ken Payne, accompanied by Grenville Davies, launched into wave and climbed to 6700ft asl for a club height record.

As a result of widening the A55 we are soon to move to a new field approx a quarter of a mile away parallel to our present field.

B.S.

OUSE (Rufforth Airfield)

By the time this appears we will be ready to start our summer programme of courses and air experience flying. This makes a big step forward for us, as we will be operating seven days a week for the first time. The air experience flying will bring in schools, scouts, youth groups and even the Women's Institute (hoping to dispel the "Jam and Jerusalem" myth!).

A Motor Falke syndicate has imported a very tidy aircraft from Germany. Keith Taylor resoloed after a 25yr break, having first flown at Norfolk GC and during Christmas week we welcomed a current member of that club, John Piper, who gained his Silver height on his first wave flight.

R.T.

OXFORD (Weston on the Green)

Despite the poor weather we had an enthusiastic turn-out during the winter. Three went solo — our congratulations to Yvonne Parker, Des Huish and John Hanlon. We operated between Christmas and the New Year and partly because of daily announcements on Radio Oxford many people came for air experience flights, thus helping to boost our funds.

There was some wave over our site in early January. Neil Toogood, in a club K-8, reached cloudbase at 2700ft from a winch launch for the longest flight this year.

Our Tuesday night maintenance club are working hard preparing the fleet for the annual Cs of A.

P.W.

PETERBOROUGH & SPALDING (Crowland Airfield)

We seem to have escaped the worst of the weather and have flown every weekend, with only one or two exceptions since Christmas, much to the delight of our treasurer. Our Inter-Club competition lectures have been very well attended, and the enthusiasm evident at the Bronze C lectures augurs well for the season. Hopefully by spring our second Bocian will have completed several instructional cross-country flights.

Our annual dinner-dance was well attended, Congratulations to Eric Arthur (Club Champion), John Marshall (runner-up) and Sue Curtis (Toyota Trophy — meritorious crewing).

The Toyota trophy originated when Martin Clarke flew a Comp a few years back, having borrowed a Toyota for retrieving. Flys task. Gets round. Lands only to find Cathy (crew) has locked food, beer etc, *and* the keys in boot. Dutiful crew nips off for assistance. Comes back with hacksaw. Opens boot with same. **Wrong** Toyota.

M.C.

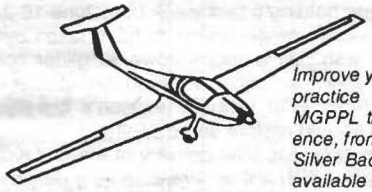
RATTLESDEN (Rattlesden Airfield)

The weather was reasonable in December and January with one exceptional January day when single and two-seaters had record winch launches of 2000ft, thanks to kiting.

Our annual dinner-dance was well attended with Bill Scull, BGA director of operations, as the guest of honour. He presented the following trophies: President's cup (for contributing most to the club), Colin Hitchman, CFI; the Landlord's cup (for most progress), Andrea Arnold and the "Numb Bum" cup to Roger Davies for his 7hr flight during the Inter-Club League weekend. Bouquets went to Andrea, for her work as social secretary, and to Maureen White for her Saturday cooking.

Congratulations to Andrew Day on going solo, to the new Paul, Humphrey and Roger syndicate who eventually extricated their

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LS-4 from Germany and to Paul Gooch, Keith Miller, Andrea Arnold and Dave Cornish on forming a Pirat syndicate.

R.W.

ROYAL AIRCRAFT ESTABLISHMENT (Farnborough)

First solos have been flown by Andy Beveridge, Phil Brown, Andy Chadwick, Malcolm Gresty, Colin Guichard, Anne Ley, Alan Samuel and Jan Simpson; Steve Ball, Andy Beveridge, Phil Brown, Malcolm Gresty and Alan Samuel have converted to the K-8 and Steve Ball, Keith Bannister, Malcolm Gresty, Liz Hartnett, Sheila Horrocks, Geoff "Robbie" Robinson, Jill Todd and Trish Williams to the Astir.

Chris Fox was 3rd and Jon Knowles 9th in the Inter-Services Regionals' Sport Class with Pete Harmer 9th in the Open, all representing CISAVIA (Civil Service Aviation Association).

We send best wishes to Claire, Jan and John Simpson who are enjoying Fayence, John having moved to the South of France with his job. I understand there is a waiting list for their spare room!

Our 25th anniversary dinner-dance is on April 6 at the Lismoyne Hotel, Fleet to which ex-members are welcome. Details from Jon or Daphne Knowles, tel 0252 512952.

C.J.F.

SCOTTISH GLIDING UNION (Portmoak)

The end of 1983 saw the arrival of the good wave that had eluded us in October and there were several excellent flights. The year finished well with Bill Stark managing his Silver distance on New Year's Eve.

The Christmas dance was a great success with one member, Simon MacIntosh, coming from Canada to attend.

This year started well on January 8 with a 295km triangle, Kintyre, Locheanhead, and Dave Wylie flew an excellent declared and photographed 285km triangle. The same day John Galloway climbed to 22 000ft in his new Kestrel, but a broken mainspring in the barograph left only a vertical line to prove it.

Our course instructor for this year is ex Lightning pilot Andy Penswick and the full-time tug pilot is David Lees.

A.G.I.D.

SHALBOURNE SOARING CENTRE (Nr Hungerford)

A skittles evening was such a success we are having another in March. The clubhouse is coming along nicely and now partitioned off into a workshop and clubroom. Now that it is heated we are using it for a series of lecture evenings every other Saturday followed by a social.

Congratulations to Dave Gidney on becoming an instructor, to Geoff Kent on going solo and to Nigel Kent and Phil Inness on converting to the K-8.

J.S.

SOUTHDOWN (Parham Airfield)

Ian Ashdown and Andy Barber have been chosen for BGA squad training. Dave Connaway and Bill Holt have overhauled the transport fleet with club gliders being given Cs of A by other members after a shock professional C of A on one of our K-13s.

We have acquired an immaculate K-18 from the Wasserkuppe after much help from our German contact, Helmut Spanier. Our faithful K-6CR is now to be sold.

"Tiny" Don Irving has resigned as CFI due to overseas work and Les Merritt has taken over. We are suffering from a shortage of *ab-initios* and hope recruitment for new members soon picks up.

R.W.

SOUTH WALES (Usk)

The year ended on a high note, particularly for A. Yorkas who broke the site record with a climb in excess of 30 000ft on December 31 while the rest of us didn't get much above 12 000ft.

In January another big Jantar appeared on the field as well as a lot of water. Our entry under the annual statistics, (last issue, p22) is wrong: we have a brace of two-seaters and two single-seaters, maybe three by now.

We have a wave week from April 23 and task weeks from May 21 and August 6. Tel Raglan 690536. We hope to be operational every good day this season.

P.F.

STAFFORDSHIRE (Morridge)

We celebrated our coming of age with a 21st birthday party on December 19 for 66 members and friends with Basil Meads, a founder member, as guest of honour. Our three remaining founder members, Doc Bradwell, Boris Clare and Barry Gilman, were presented with engraved tankards to mark the occasion.

Our new winch is on site and being substantially the same as our existing Diesel powered device, we don't anticipate too many teething troubles.

Late December brought weak wave which gave some interesting scratching which stretched to a first Bronze leg for Des Jackson on December 30.

B.G.

STRUBBY (Strubby Airfield)

Congratulations to Dick Skerry, Dave Horton and 16 year-old Linda Wetton on going solo. We are now aerotowing as well as winch launching. On Sunday, December 4 we had our very first wave flights when Stuart Bailey renewed a Bronze leg from a 2000ft tow.

Our holiday courses start in April. The old control tower has been converted into a clubhouse and members and visitors can now eat, sleep, drink and be merry.

Our annual dinner-dance was on December 9, our fifth anniversary, when John Williamson gave a lighthearted address which was much appreciated.

D.B.

TRENT VALLEY (Kirton Lindsay)

The clubhouse was finished in December and opened in fine style with a cheese and wine party. The generator failed and was rapidly replaced with one of a larger capacity.

The high winds of January damaged some of the syndicate aircraft but the T-21 escaped with minor damage after being blown upside down in its trailer.

Our double-decker winch is being repaired and modified and we are hoping to replace our ageing single-decker. We also plan to replace the T-21 with a glass single-seater.

We are sad John Swannack has retired as CFI. His tireless efforts have made us cross-country orientated and highly competitive in the Inter-Club League and Regionals with a good safety record. His work for the club was often at the expense of his own flying and we hope he will have more time to enjoy his Kestrel. We welcome Bob Baines as the new CFI.

R.H.

ULSTER (Bellarena)

Easter being unusually late, we're hoping for our now customary holiday soaring week to be the best yet. We'll fly from April 21-29 inc and though invitations have gone out to those clubs and pilots in GB who've come before, cross-Channel first-timers will be particularly warmly welcomed. Our Easter week usually gives some early cross-countries in a mix of ridge, wave and thermal lift; there will be informal task setting and some even less formal barbecues and hangar parties. Phone me on 0232 790666 if you'd like to come, with or without your own wings.

We logged 1691 launches in 1983, despite a mediocre second half. This was about 300 up on 1982 and a third over the budget 1200. Membership grew by 10% and about 2600 cross-country kilometres were flown.

Our only casualty in repeated hurricane-force winds in January was an empty Skylark 3 trailer which took off after pulling its picket, a ballhitch atop a 4ft ISJ, clean out of the ground, smiting an ASW-20 trailer as it went, without damage to the aircraft inside. There wasn't much other flying in January.

Acquisition of East Belfast workshop space has revived enthusiasm for good works on the maintenance front and the Capstan should be flying again after a complete recovering.

Please note our site 'phone number has changed and is now Bellarena (05047) 50301.

R.R.R.

WELLAND (Middleton)

At our AGM John Hÿtch retired from the committee and was thanked for his services over the past three years. His place was taken by Martin McEvaddy.

There is an excellent turnout of members to assist with the refurbishing of tractors and winches and the preparation for Cs of A.

We are pleased to note a healthy increase in membership and the purchase of a Swallow for the club fleet.

R.H.S.

WEST WALES (Templeton)

There has been little flying in December and January but the bright spot is the delivery soon of our K-7/13, bought with the aid of a Welsh Sports Council grant. This will bring us up to two "all weather" two-seaters (K-7, K-7/13) with the T-21B for the summer.

Ray Stuart joins the K-8 syndicate and the Baker/Douglas/James syndicate SHK should soon take to the air and boost our cross-country kilometres.

Our thanks to Brian Baker for his usual sterling service over the winter in restoring our winch and retrieve vehicle to showroom condition.

S.D.P.

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WOLDS (Pocklington Airfield)
The K-8 we acquired in exchange for the club K-6 has been flown more in the last few months than was managed in the K-6 in a year.

The club and site are getting sorted out for the season. Once again we have our Easter expedition to Portmoak and a task week at Whitsun when everyone is invited.

New members are always welcome; Mrs Horden Higgs, mother of club member Peter, recently enjoyed her first flight in a glider on her 80th birthday, so age is no limit.

T.H.

YORKSHIRE (Sutton Bank)
Having sold the Pilatus and written off the Pirat the club feel it is somewhat depleted though we are replacing them with two glass-fibre machines. First solos will be in the K-21 with conversions to the Astir.

Like many clubs, we were not left unscathed after the January winds and salutary lessons were learned about picketing trailers and caravans.

The winter has been variable with some wave. We have been working hard on the clubhouse with the bar extended and renovated.

John Smith and Co are again directing the Northern Regionals which already has quite a healthy entry list.

H.H.

SERVICE NEWS

BICESTER (RAFGSA Centre)
The winter was made bearable by the odd day of wave and thermal. The hangar has been a hive of industry and we have a new and much improved bar looking out onto the airfield. It will be opened officially at our AGM and Valentine's party. Our thanks to those who contributed their time and knowhow.

S. & J.

CLEVELANDS (RAF Dishforth)
Our Christmas/New Year soaring week was an outstanding success with more than 50 aircraft on site. The Diamond total was 12 with 18 Gold claims and a couple of Silver legs. We were particularly pleased to see the Air Cadets with three of their new gliders.

At the RAFGSA AGM, our members collected an almost embarrassingly large number of trophies. It all goes to show there *is* life north of Bicester!

P.W.

CRANWELL (RAFGSA)
The high point of winter was our annual pilgrimage to Dishforth airfield where the wave really worked and gave us 14 height claims. Chris Terry and Pete Fincham achieved Gold and Diamond climbs, while Mick Wood, Al Thomson, Simon Hutchinson and John Rogers all achieved Diamond heights. Rick Millington, George Foster, Phil Becker and Ray Walker all got to Gold height. Norman

Quirke gained Silver and Gold heights on the same flight and Helen Quirke flew her first solo aerotow. Our sincere thanks to the Clevelands and Hambletons clubs for providing us with such excellent weather and facilities.

We now eagerly await the return of our Chipmunk so we can resume aerotowing. In the meantime Phil Becker is working hard to keep our winches serviceable. We congratulate Iain Barrow on successfully completing the instructors' course at Syerston.

J.L.

FENLAND (RAF Marham)

We welcome Chris Jobling from Cranwell, Keith Tegg from Fulmar and a new K-8 to join our fleet. Apart from this, the bar has been doing well.

S.L.

FULMAR (RAF Kinloss)

We must record our appreciation to Mick Orr for his time as CFI. Al Clarke has taken over and we look forward to continued progress.

W.G.

HERON (Yeovilton)

There were many difficulties last season due to extensive modifications to the runway lighting and damage to club aircraft by workmen renovating the hangar.

We welcome a new CFI, John Eatwell, and his deputy, Mike Gale. John's son Russell gained a Bronze leg on this third solo, remaining unnerved when joined by a gaggle *en route* from Lasham.

We welcome back John Beattie whose son Andrew went solo during the task week. Stu Wright is an assistant Cat; Dave Mackay, Wendy Wright, Pete Wray-Cook and Val Carter have both Bronze legs; John Hopkins has Silver height and duration while Nickie Snook joined the Milan syndicate and flew 1400km in her Vega.

We gave air experience flights during Yeovilton's "Families' Day" which brought us several new members. We hope to make this an annual event. Our task week is at Easter at Merryfield airfield.

Blanik Zulu and the syndicate owned Skylark 4 has been sold with the club Pirat going on the market this spring. A bus is being modified as a mobile canteen/briefing room and we hope to buy a new towcar.

We have been joined by an enthusiastic contingent from the Royal Naval Reserve's HMS Flyingfox based at Bristol and hope for new members from the Marine's new camp at Norton Fitzwarren near Taunton.

V.C.

HUMBER (RAF Scampton)

Since Christmas we have had a lot of strong crosswinds and then snow which stops us flying and working on the equipment as we aren't allowed to drive on the airfield in case we pack the snow down and it can't be cleared.

Our AGM was a great success with the Scout's trophy going to Dave MacPherson for best progress; the CFI's trophy for the fastest 100km triangle to Dave Cockburn (who incidentally gave the trophy); the Workers pot was again awarded jointly to Dick Gibbs and Tony Smith and a new trophy presented by Dave MacPherson, known as the Vicar's pot to be awarded for the first Bronze C of the year, went to Birgit Pleiner.

Trina Jennings and Clive Brealey have successfully completed instructors' courses and at long last we have been allocated the ASW-19.

I apologise to Andy Ratcliffe for forgetting to mention his 300km Gold C distance and Diamond goal achieved during the Inter-Services Regionals.

K.M.G.

PEGASUS (RAF Gütersloh)

Our congratulations go to Mick Boydon on coming 4th at Buckeburg in the German Forces Comps — the highest placed visitor.

Due to the efforts of Al Stacey, we are having regular early starts with the added incentive of free launches before 0930hrs.

Alan, Mark and David have gone solo along with Dick and Ian who have converted to the K-8. Our MT is being given a facelift thanks to hard work by Ron Breezer and Pip Barley.

At our AGM trophies were awarded to Tony Povey, Mick Boydon, Ron Breezer, Ian Galagher and Richard Hill.

V.E.G.A.

PHOENIX (RAF Brüggen)

Our AGM in a renovated clubhouse was a fair success with over 50 members. The main trophies were awarded to Ken Fyfe, Bic Smith, Garry Wolton, Andy Miller and John Marriott with the Hog of the Year going to Ian Smith and our CFI, Tony Clarke, gaining the fastest 100km triangle award.

Although the annual statistics were on par with 1982, the year was moderately successful overall with the annual expedition to Bisperode rounding off the season nicely. Over 250hrs were flown and four durations achieved.

We regret saying goodbye to Martin Johnson and Ken Pick whose instructional talents will be missed.

A.F.M.D.

PORTSMOUTH NAVAL (Lee-on-Solent)

Obituary — Stuart Savage

Stuart Savage, aged 34, died on November 13 shortly after his Cessna light aircraft crashed into a railway viaduct crossing the A27 near Fareham, Hants. It appears that he was attempting a forced landing following engine failure.

He learnt to glide at Lasham some ten years ago and held a Gold C with a Diamond height. Latterly he was a gliding instructor at Lee-on-Solent, and more recently took to power. He lived for flying and it didn't seem possible to visit a gliding site, however far flung, without Stuart turning up. He will be remembered for his cheerful disposition and unfailing helpfulness, and his loss is all the greater for that. Our sympathies are extended to his widow Denise and their two sons.

Julian West

TWO RIVERS (Laarbruch)

The autumn Bisperode expedition was a success with over 240hrs flown in nine days in ridge, wave and thermal conditions.

Our K-13 is back after its major/C of A — we will now be able to use the Twin Astir for advanced cross-country training. The new bar is in full swing and Barry Elliott, DCFI and entertainments member, is making plans.

Al Thomson has been to Diamond height, Greg MacIntosh and Mick Johnson have completed instructors' courses and those who went solo recently include Tony Andrews, Shaun Butt, Andy Johnson, Shaun Ellis, Stan Stanley, John Garroch and Bob Tunnard.

Good luck to Al Thompson who has taken over as CFI and we thank Mick Mahon for his two very hard years in the job.

Simon Hutchinson again walked away with all the trophies at our AGM when we were told our new DG-300 is arriving in early 1985.

We say goodbye to Dennis and Karen Standley who are going to Fulmar and Mick Mahon who has left for Bicester and welcome Barry Elliott from Four Counties, Stu Lawrence from Fenland, Dave and Sue Declancey from Upavon and a horde of new *ab-initios*.

P.J.S.

WYVERN (RAF Upavon)

During the winter we've had some unusual soaring weather, several months producing days which gave flights of over an hour from a winch launch.

One windy Sunday brought a measure of novelty to our flat site when we tried bungy launching. Several single-seaters gained some height but only the lightest pilots persuaded the K-13 to leave the ground.

Since the acquisition of the LS-4 the hours have been lowered on the Astir and Cirrus resulting in conversions by Colin Baker, Mike Bruce, Ken Moules, Alan Burch and Pete Brennan (Astir) and Bob Mills, Charlie Tebbs, Steve Welsh, Pete Howarth and Edwina Bonser (Cirrus).

There were several Bronze legs during the winter and Dawn Bradley has her Bronze C after going solo on her 16th birthday earlier in 1983.

The Christmas party organised by Paul Lutley was a great success.

P.A.S.

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AERO JUMBLE

The first Aerojumble in '83 was a terrific success, so by popular request we are repeating it on April 7th 1984. It's a gigantic outdoor jumble sale of everything to do with aviation. Aircraft, gliders, micros, models, parts, relics, radios, prints, paintings, clothing, films, books, photos, flying clubs, schools. There's nothing else like it. It's for everyone interested in aircraft and flying. **Book a marquee stall for only £20.**

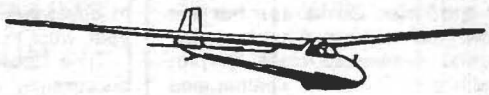
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Overseas News



Please send news and exchange copies of journals to the Overseas Editor: A. E. Slater, 7 Highworth Avenue, Cambridge, CB4 2BQ, England.

World Records Claimed. Hans-Werner Grosse, W. Germany is claiming the 500km world single-seater triangle record which he flew on December 20 from Alice Springs, Australia. He clocked up 159.65km/h in a modified ASW-22. He also attempted the 750km triangular record but did not quite reach the 2km/h necessary to break the record.

The country experienced one of the wettest periods for some time which curtailed his flying somewhat.

Erwin Müller and Karl Senne are claiming the world goal and return record with a distance of 1040km. The flight in a Janus C took place from Bond Springs, Australia on December 26.

Austraglide and Australian Nationals. The combined Nationals and Austraglide at Benalla during January proved very successful despite the weather being below par for this time of year. There were 17 entries in the Open Class, 35 in the 15m and 30 in the Standard Class. The Austraglide (international) was scored on handicap. The Open and Standard achieved nine and the 15m Class ten contest days.

Leading Results Open Class Nationals. 1. Ingo Renner, 8874pts; 2. Kees Musters, Holland, 8223; 3. Peter Griffith, 7734. All were flying Nimbus 3s.

15m Class: 1. John Rowe, 9396pts; 2. Brad Edwards, 9276 and 3. Paul Mander, 9191pts. They flew ASW-20 and ASW-20BS.

Standard Class: Andy Pybus, LS-4A, 8909pts; 2. Stig Oye, Denmark, LS-4, 8772 and 3. Terry Cubley, Std Jantar 2, 8656pts.

Leading Results Austraglide. Open Class. Ingo Renner, 8711pts; 2. Charles Day, Kestrel 17, 8193; 3. Kees Musters, Holland, 8067.

15m Class. Maurice Bradney, Pegasus, 9065; 2. Terry Cubley, 9030; 3. Stig Oye, Denmark, 8701. Standard Class. The same results as for the 15m Class are listed in *Australian Gliding.*

(Continued from p87.)

Licence to fly a Spanish glider, solo; a Spanish licence must be obtained against a copy of your national licence as well as two photographs and a copy of the last two pages of your logbook with the CFIs signature. You can apply for the licence when booking with Aviacion Ligera at a charge of 500 pesetas.

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CLASSIFIED SECTION

Advertisements, with remittance, should be sent to Chelron Press Ltd, 7 Amersham Hill, High Wycombe, Bucks. Tel 0494 442423. Rate 30p a word. Minimum £6.00. Box numbers £2.40 extra. Replies to box numbers should be sent to the same address, the closing date for classified advertisements for the June-July issue is May 7, a.m.

FOR SALE

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ASW-20 FL for sale. Contact A. Kay, Gt Missenden 2491 or A. Hegner 01-445-2691.

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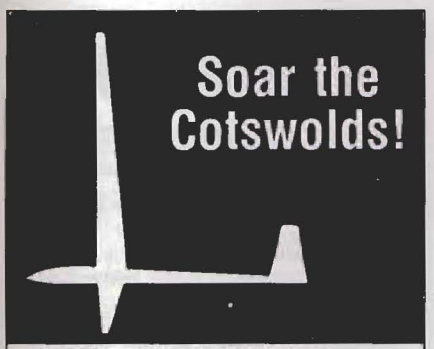
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For details apply to:
Ken Sparkes
(Enstone Eagles Gliding Club)
Tadmarton House Farm
Tadmarton, Banbury
Oxfordshire
Tel: Banbury (0295) 721242

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Hire a luxury Full Service 2 bedroom Caravan with H&C shower, fridge and colour TV.
Camp in sheltered comfortable surroundings with modern facilities.
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Gardnerville, Nevada 89410
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BATTERIES	— 12V 6.5Ah sealed lead acid	£17.50
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Current price list — February 1984

MOBILE SHOP — If you would like the shop to visit your Club this summer, please contact Marjorie to arrange suitable dates.

HOBBIES, 144 Lythwood Road, Bayston Hill, Shropshire SY3 0LW. Tel 0743 723885
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CAMBRIDGE (Marshalls)
DUXFORD

The Name may sound a trifle exclusive, but the Cambridge University Gliding Club is open to everyone.

We winch and aerotow from Duxford all year, mostly at weekends, and aerotow only from Cambridge. We run holiday courses from April to September for beginners and solo pilots.

For general information write to
The Secretary
55 Moorfield Rd
Duxford
Cambs

For Course details write to
Course Secretary
"Cirrus"
5 Wallmans Lane
Swavesey, Cambridge
Tel. Swavesey 30533

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THE SOARING SITE

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28th July to 5th August 1984

Entry fee £80

Entry form and details from
BRIAN SPRECKLEY

BOOKER GLIDING CLUB
W.A.P., Marlow, Bucks

Tel: (0494) 442501
or (0494) 29263

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Trevellas Airfield, Perranporth
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Gliding courses from April to October — fleet includes motor glider — B.G.A. fully-rated instructors — fine soaring — lovely coastal airfield — ideal for a different family holiday — No increase on last season's prices.

The Course Secretary
Tremearne, Breage, Helston
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Tel: Helston 62294

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Holiday courses from
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Visiting aircraft welcome

Courses include 5 nights' bed, breakfast and evening meal in local country inn.

Enquiries to
Miss Lyn Munro
151 Wilsthorpe Road
Long Eaton
Tel 0602 721659

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Situated just outside Husbands Bosworth within easy reach of many other Clubs. Aero-tow launching ensures maximum soaring opportunity for both long distance and local gliding.
Club facilities include Licensed Bar, first class accommodation, good company and easy access from motorways.
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For details ring:
Market Harborough 880429 or 880521
For holiday courses ring
Market Harborough 880484
or write to: COVENTRY GLIDING CLUB
Husbands Bosworth Airfield,
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The Course Secretary
Midland Gliding Club
Church Stretton
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Tel: Linley (058861) 206

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Lasham Gliding Society
Nr. Alton, Hants
Tel: Herriard (025 683) 322 or 270

MARCHINGTON GLIDING CLUB

Situated in the Midlands. Offers holiday courses from May to September.

Good local soaring and cross country. Courses to suit your requirements. Private owners welcome.

Please contact Course Secretary:
Marchington Gliding Club
Marchington Airfield
Morton Lane, Marchington
Nr Uttoxeter ST14 8LP
Telephone: 0283-222046

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Portmoak
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by Kinross
Scotland

Telephone
Scotlandwell
543

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Full accommodation available with catering and bar

Flying all year round

Aerotow and Motor Falke facilities

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Telephone: 0582 63419

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Write for Course brochures or club membership details to the Manager, or ring 0582 63419

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12 miles in suitable conditions

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