SAILPLANE AND GLIDING

December 1988-January 1989 £1.60



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Inter-Club League Final

Regionals' Results

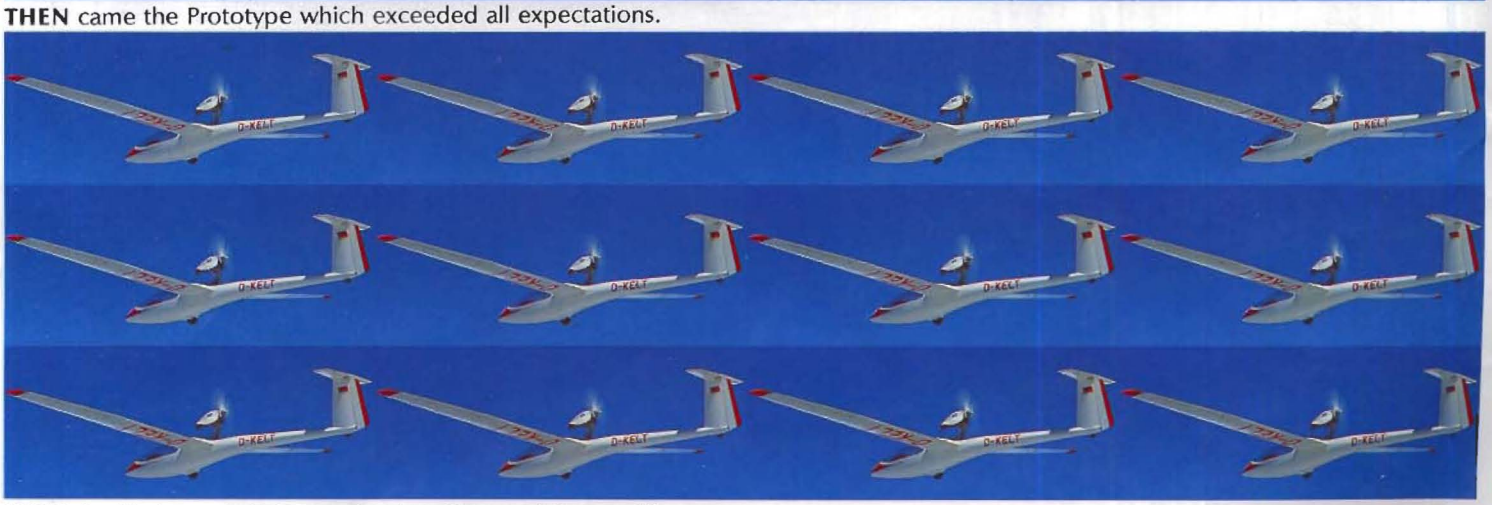
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December 1988-January 1989
Volume XXXIX No. 6

SAILPLANE AND GLIDING

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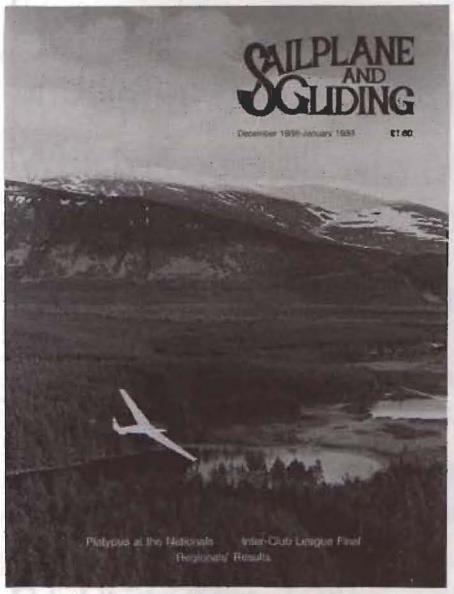
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Cover: Alan Mossman flying the Super Falke with Anthony Carnegie on the Feshie approaches. Photo: Bill Longstaff.

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YOUR LETTERS

TEAM SELECTION

Dear Editor,

Our international opposition will take great comfort from the recent announcement of the UK team squad for the World Championships in 89, noting that some of our best pilots are not even in the running for a place. For instance in the Standard Class Nationals this year, the runners who made up some of the minor placings - Garton 9th, Wills 7th, Wells 4th, are all in the squad, yet the two who beat them, by up to 800pts, Sally King and Smith, are not to be considered. Some selection system! Our selection process ensures that old experience is considered more important than current form, and a self perpetuating gerontocracy is maintained by the peer group selection process within the squad.

The only justification for maintaining this procedure is that it is likely to throw up a team with more than one pilot with both the experience and ability to service his colleagues' Zimmer frames and bath chairs at the Championships.

Our present system is clearly flawed. Pilots skills generally wax, peak and wane, and our selection policy is throwing up too many who are clearly waning. It fails to acknowledge the time lag between achievement and recognition, and is unfair to those of us who pay for the team. Let's simply send the 1988 class champions, preferably without any of the nonsense of team uniforms. We would prefer to see some elegant results rather than some overdressed retrieve crews on parade.

SIMON ROBERTS, *London*

Ben Watson, British team manager replies: Thanks Simon for your splendidly abusive letter. It gives me a chance to reply in public. There may be others who share your views.

Obviously it is important to get a team of pilots who are still waxing and to recognise good newcomers early. However:

1. Sally King gets into the squad automatically as National Champion. In fact she made 9th place out of 17 in the recent votes and is effectively reserve for Wiener Neustadt (see BGA News).
2. The voting panel is 32 pilots voting for a team of say six; so "self-perpetuating" is not correct. The peer group is purposely large enough to guard against the type of criticism you make.
3. The BGA selection for the European Championships is taken directly from the previous year's Nationals; so in these Championships we already follow your suggestion.
4. Having spoken to the team managers of other nations about their selection methods I am quite clear that ours is the best - or perhaps the least imperfect. Several other nations have a mechanical system but it is chancy, especially in British "two-day Nationals" weather and it creates some obvious mistakes, *eg* the absence of Holighaus and Brockhoff from the German and Australian teams at Benalla. Several teams still retain selection by "Blue Blazers" which the BGA changed in the 1960s.
5. International experience is vital for Championships where conditions are often very different from the UK. Hans Nietlispach represented Switzerland from 1954 (Camphill) to 1985 (Rieti) where he still came 11th in the Standard Class. Andy Davis won his first Nationals aged 22 and was in the team at 25. At 32 he is now the longest serving member of the present team and is not in a bath chair yet.
6. Our selection process does pass over those who have had a good run. What about Delafield, Fitchett, Cardiff - all still first class pilots but no longer in the team.
7. Finally, those uniforms (!) are paid for by pilots or sponsors - not out of the BGA levy. Every other team has a uniform. We can't just go in jeans. And as for results, well - wait and see!

WHY LAND TO SCORE?

Dear Editor,

Is there any good reason against allowing a photograph of a point where one **could** have landed to be used for scoring purposes on a competition flight?

The situation arose recently when the weather was superb until some 30km from the first TP on a long task. It then became apparent that there was no chance of rounding the TP, which was on high ground with extensive very low cloud and pouring with rain for about the last 15km. The weather situation, with very light wind, offered little prospect of clearance. Gliding out into the rain, into a poor landing area did not seem a particularly sensible thing to do. No one got round the TP, indeed the day's winner was struck by lightning and his aircraft was severely damaged. Meanwhile two of us waited at the edge of the bad weather for some two hours before deciding (as it happened mistakenly) that there would be no score for the day, Y being at the TP. (We misjudged the effect of the wind on the scoring.)

Yes, we did make a mistake, but all the same why does one **have** to land to score if it can be proved that one actually got someplace? Particularly when no out landing is totally hazardless and today's gliders are not cheap to repair. And why throw away the chance of a further, albeit different, several hours of cross-country flying, with any luck landing back at base?

Similarly, why is there a restriction on the size of the photographic zone, or a requirement that the TP itself must be in the photograph, which then requires exemptions like obscured by cloud, another glider etc? In a yacht race one has to actually round the TP, but how far away is quite immaterial. The penalty for a wide rounding is automatic, *ie* loss of time. In gliding we can nip into the zone from one side and depart from the same side without actually going round the TP. Why not then the option to do so at any distance from the TP? When the TP is in a large bad weather area, the pilot's choice between waiting hopefully for the weather to clear or going a long way further would allow another tactical decision to be exploited and, on occasions, the task to be completed, when by having to enter the present photographic zone it could not.

The only objection I can see is the difficulty of identifying an unfamiliar point. However, that could be made the pilot's responsibility by knowing where the point was - and having to supply the appropriate Ordnance Survey map, if necessary, at his own expense!

We did have a lovely flight back - 75kt at 5-600ft along a sea breeze front. Could have gone much further the other way too if we hadn't spent all that time waiting.

SAM ST. PIERRE, *Bedale, N. Yorks*

John Taylor, chairman, BGA Competitions and Awards Committee, replies: The concept of photographing points along the track has been tried in European mountain flying competitions where the situation Sam describes is far more likely to happen. Sam rightly points to the problems of photographic interpretation as being the main reason we have not adopted a similar scheme in the UK. There is no reason, of course, why the task setters should not specify an *en route* (mandatory) TP if there is a risk of weather blocking off a TP. However, I have never ceased to be impressed by the ingenuity of some pilots in negotiating seemingly impossible conditions, though not of course as extreme as Sam describes.

The size of the photographic zone is also defined to avoid unnecessary photographic interpretation problems and subsequent delays in publishing scores. There are many cases where a photo of an area just 1km from a well-known TP feature could be very hard to identify positively, which is why we require the TP itself to be in the frame.

THE FLYING LIST TO BLAME

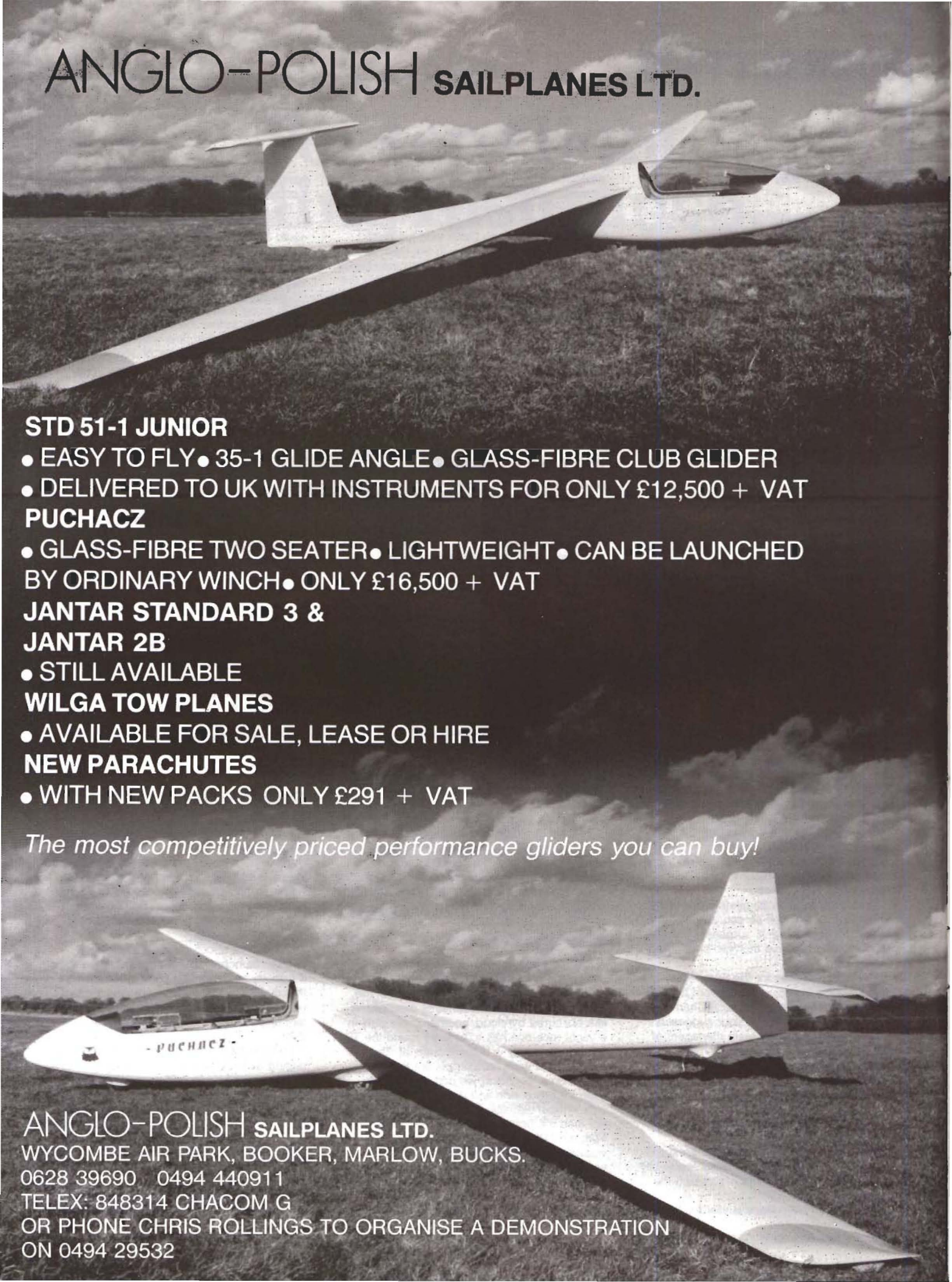
Dear Editor,

I read Vic Carr's article in the last issue, p235, about the decline of the gliding movement with interest. I am an average glider pilot with average flying hours per year and my waiting hours on airfields total about 25 times more than my flying hours! So I think I can explain why gliding is not expanding as it should.

Vic is right about the problems of not enough launches and the frustrations of being a nobody at the launch point, but I am sure that these are not the only reasons. Further problems arise from our archaic flying list system and the poor expectations of the *ab-initio* pilot.

Many established club members still view gliding as a pioneer sport requiring excess of dedication, patience and uncertainty. We must get rid of the traditional early morning rush to get on the flying list for club members, with the prospect of a long and sometimes fruitless wait for those not there at the crack of dawn, in favour of a fairer method similar to powered flying where pilots can book the plane and instructor by the hour.

True there would be problems with a booking system but I am sure these could be over-


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come. A better system would release *ab-initios* to help with club activities instead of hanging around the launch point and encourage members with family or business commitments to continue flying rather than give up because of the pressure of time.

Secondly, for learners the expectation of "service" on the airfield is very poor. When they are driving to their club they have no idea if they are going to fly or how long they will have to wait – it could be anything from ten minutes to eight hours. Also they have no idea who their instructor will be or what they will learn!

We may have an excellent record for training and badge awards but not for pre and post flight service because of the flying list.
ANDREW COATES, *Chipperfield, Herts*

MORE ON GLASSES

Dear Editor,

I am glad Phaeton's warning in the last issue, p252, for bi-focal wearers about "a new type of lens" came too late for me. I changed from bi-focals to progressive multi-focal lenses nine years ago because bi-focals had become inadequate for the clear sight of objects between the ranges of normal reading and distance – notably instrument panels. Since then I have been able to see anything at a glance, at any range and in the smallest detail.

I am sure that many pilots who have difficulty with visual accommodation would find multi-focals invaluable provided that there are no optical contradictions, their lenses are properly dispensed and they adopt a slight change in technique. This amounts to looking more frontally than is necessary with ordinary spectacles, especially for near vision. In other words, a little more head movement than usual is needed.
L. BAILEY, *Harpenden, Herts*

A PARACHUTE ON THE GLIDER

Dear Editor,

The standard arrangement for employing parachutes in gliders would seem to be far from satisfactory. To make a successful escape by parachute we have to jettison the canopy, sort out our glider release from our parachute harness, get out of a machine which might be performing some extreme manoeuvre, get into clear air, find the release handle to deploy the drogue and wait for the main 'chute to deploy. Then, if all this has been successful, when we do come down, we are likely to break our ankles, or legs.

I spend a lot of my time in two-seaters flying at a hill site. it seems to me that the chances of an *ab-initio* student making a successful jump from a height are rather slim and that the chances of escape from a collision while hill soaring at low level are zero.

Why don't we copy the technique developed by hang glider manufacturers and mount the parachute on the glider? A simple pull of the release would ensure deployment. No time would be wasted trying to get out of the machine. The possibility of fatal error would be eliminated and we would enjoy greater comfort while we are flying.

The system works very successfully and has been proved to operate at very low level. The packs are compact and if we can find room for an engine in the top of the fuselage there must be room for a giant parachute!
HAROLD DALE, *Beverley, North Humberside*

WON BY A CLOSE SHAVE!

Dear Editor,

I was intrigued by the back cover of the last issue where in some glider mender's advertisement, under the headline "Congratulations to Sally King and Discus" was a picture of a bearded pilot flying over some typical Cotswold country. Now when I saw Miss King step up to receive her prizes at Nympsfield in June, as Champion of the Standard Class,

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there was no sign of seven o' clock shadow nor a hint of a beard on her smiling face.

I think congratulations are more due to her crew for transforming their apparently bearded belle in to a veritable English rose in such a short time; may we conclude that at the end of the day she won by a close shave? Or was her real identity just another of her clubs "rounded statistics" as admitted to by Mike Cuming in the same issue, p199? I think that we should be told the truth.

Your man on the wall,
LARRY AUTRE, *Stroud Glos*

The following reply comes from "Some glider mender": Larry Autre's astute observations reveal the lengths that the female sex will go to to ensure equality. Even the advertisement was composed by a person named Jane Jones - and when she grows a beard, I'm leaving.

LAMS FOR MOTOR GLIDERS

Dear Editor,

My syndicate partners and I bought a Grob 109B motor glider at the start of 1988 and have recently negotiated alternative Light Aircraft Maintenance Schedules. The details may be of interest to anyone operating a motor glider and doing reasonable amounts of soaring. It always seemed crazy to me that the whole check cycle was based on flying hours and yet a large part of the checks were engine related. Hopefully the engine hours will be significantly less than airframe hours.

The new LAMS splits the maintenance cycles into 50 (and 150) engine hours (or six months) engine checks and 50 (and 150) flying hours airframe checks. Not only does this potentially reduce the maintenance costs, it also reduces the down time and eases the pain if the airframe check period expires outside the UK. To give the possibility of occasional synchronisation of the two check cycles we agreed on 10% anticipation (as well as extension) of check periods, providing the combined anticipation and extension adds up to no more than 10%

I found the CAA most helpful (K. Sabin at Gatwick was my contact) and see no reason why others should not have the same success. I'm not sure whether the same approach can be taken with DG-400s etc, but it must be worth trying.

DAVE SAWDON, *Winchester*

Dick Stratton, BGA chief technical officer, replies: The CAA have always been prepared to negotiate maintenance schedule changes to suit particular operators. Usually these are public transport or flying school fleets and seldom individuals! Well done.

The BGA's (M3) maintenance approval covers more than 100 motor gliders. Of this number 26 are single-seater self-launchers of which four are RF3/4 motor Tutor types which seldom if ever stop their engines.

Of the 80 odd two-seaters it is probable that a minority spend the majority of their flying time with the engine stopped. They are flown mostly in the *en-route*, field landing and training roles. The difference between their engine on and off times is not significant.

The maintenance of airworthiness of engines is not only running hour related. We have had two fatalities due to engine failure after take-off, one of which at least was caused by contaminated fuel filters.

The actual work content of the LAMS 50hr schedule is minimal but it does include such items as fuel filters and valve clearances which in the case of VW derived engines is important if compressions are to be maintained.

The BGA will be making a submission to the CAA for concessions to the LAMS including those for self-launching motor gliders at the next six monthly meeting of the General Aviation Aircraft Consultancy Committee.

COULD BE AUDIO RECOGNITION

Dear Editor,

I read David Millett's article in the August issue, p177, and believe the reason his dog Sussie knew his glider was because it was more than likely the aircraft produced a high pitched sound, due to its rigging, natural aerofoil or air scoops.

Possibly this sound was present when David took off the first few times the dog came on the airfield. Consequently, Sussie became another example of Pavlov's successful experiment and knew she would get love and affection every time she heard the glider.

JAY BERKOWITZ, *Florida, USA*

HISTORICAL STRAND

Dear Editor,

It would seem that French pioneer Jean-Marie le Bris made his epochal 1856 ascent in the Albatross from our much-beloved Magilligan Strand, for Georges Beuville's contemporary illustration in the last issue, p235, is the spitting image of the place.

Now we've always argued that Magilligan, where the Ulster GC's Bellarena strip is located, is a very special soaring locale indeed!

BOB RODWELL, *Belfast*

BOOK REVIEW

The Funny Side of Flying by Alan Bramson. Published by Blanford Press at £2.50.

Alan Bramson has departed from his usual brand of informative and instructive books on flying techniques and has produced a very entertaining paperback, which is a compilation of funny flying stories from all walks of aviation.

Just the thing to have with you when waiting in your field for the retrieve crew. Well worth the £2.50 for the splendid cartoons by Trevor Ricketts and Alan's tales.

B. H. BRYCE-SMITH

TAIL FEATHERS

Bloody Competitions

There are days when for the first hour or so I can't get my act together (let's forget the years when for the first month or so I can't get it together) and it seems the glider won't climb, while every supposedly inferior ship whiffles up past me, and in the glide I get lower and further behind. There is no point whingeing about it on the radio; you just hear Ralph Jones jeering "Get a Nimbus!"



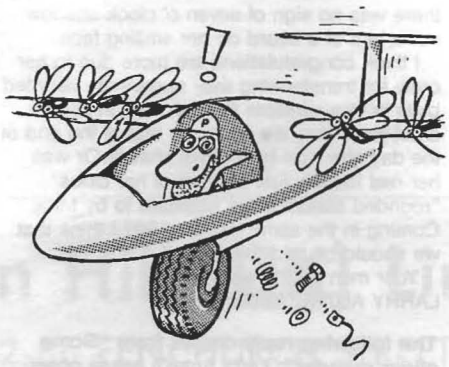
Can't get my act together.

Unwilling to admit that my flying could be at fault, I glare out along the wings and wonder whether I have bolted them on upside down or left the divebrakes out. I know what it is, the flaps aren't connected. Wish I could see the damn flaps from here; my neck is hurting trying to crane round and under. "Look out you idiot!" Oops, sorry. Another 15m Class goes past. What is wrong?

Then you know what it's like when you have a tiny sore inside your mouth – it feels like a golf ball. Well, one midge squashed on the wing looks the size of an elephant when you're in this self-pitying frame of mind. Wait, this is galloping paranoia – haven't all the other gliders got monster bugs, too? Yes, but they've got smaller wings so they catch fewer bugs. It's not fair.

Then I think I have left the wheel down, and it has taken on the dimensions of the wheel in the little diagram down by the undercarriage lever, which makes the wheel look the size of the front roller on a traction engine. How can a fellow soar with a steamroller wheel dangling out in the breeze? No, the wheel is up, it must be something else.

Yes, the instruments; they can always be blamed, why didn't I think of it before? The pipes are full of weevil's eggs; and they've been hooked up wrongly by some fool, probably me; the terminals have been reversed by a saboteur (probably me again); the batteries are defunct and



Galloping paranoia.

should have been scrapped months ago; the solder joints must have crumbled after yesterday's landing, I know it. The more good reasons I find for not being able to soar, the worse my flying gets.

Then WHAM! Quite by chance I hit a corker; all the little gliders dwindle below and behind, and I even begin to get some of the big ones in my gunsights. The steamroller and the elephants vanish, the wings, flaps, brakes, pipes and wires have suddenly been reconnected the right way, the weevils hatch out and fly off, the gelcoat sparkles and yesterday's landing was a baby's kiss after all.

What *was* all the fuss about . . .?

Which kind are you? ask your partners – if you dare

When it comes to getting everything right, from practice to pitots to paperwork, there are four classes of competition pilot:

Superstars are totally organised at least a week before the contest begins.

Pundits get their act together by the end of the first day of the Comp.

Coarse pilots are sorted out by the end of the last day of the Comp.

Peasants are totally disorganised before, during and after the Comp, and usually manage to roll the trailer over on the way home, just to round things off.

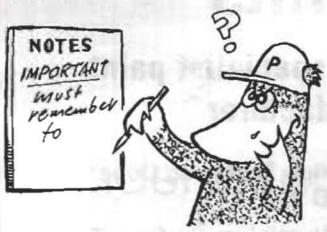


After the Comp.

The superstar partially achieves this pre-champs perfection by hiding the glider where nobody else can find it, especially the peasants. No syndicate should have more than one superstar in it, nor should it have more than one peasant: the strain on the others is too great.

Wilbur was Wright

In the 1950s a wise old bird under the *nom de plume* (that's French for *Feather-name* of course) of Uncle Wilbur used to write a column in the London Gliding Club Gazette, giving digestible instructive titbits to the fledglings. One of his simplest and best bits of soaring advice, which has stuck in my mind for 30 years (most things stick in my mind for all of 30 seconds) was "If you're going to circle, then *circle*, dammit, don't wander in vast arcs!"



Most things stick in my mind for all of 30 seconds.

"Why waste space" you snarl impatiently "telling us what might have been news to Lilienthal but is now obvious to everyone?" Well, I see scores of beautiful modern gliders, with crisp 1980s controls, wandering in vast arcs all over the country and failing to go up. The pilots clearly expect to black out at 15° and to pull the wings off at 20°. You might just climb in the late after-



Low down at high noon.

noon near cloudbase, but it won't get you out of trouble if you're low down at high noon; the thermals then are mean and narrow.

It occurs to me that many pilots have no idea what angle of bank they are flying at. If you can't afford a fancy swivelling compass like a Bohli, which you can line up with the horizon after setting it for 30°, 45° or whatever you fancy, then try some bits of cardboard or wire on top of the instrument panel, or put chinagraph marks inside the canopy. Let's get that wingtip down and start moving the scenery round!

PS. Apologies for the play on words at the top of this little piece: it's an Orville pun.

SOMETHING SPECIAL



Butch Dalrymple-Smith, a yacht designer from Co. Cork, says he has no badges, hardly any hours "in a real glider" and a bit of Falke flying in Ireland. Since writing the article, he went solo after six K-13 flights at Booker.

While most contributors who have described "Their most memorable flight" are expert pilots, or at least well on the way there, I feel bound to share with you readers the experience of what was virtually my first flight in a glider.

Strictly speaking, I cannot claim it was my maiden flight. I must confess that I lost my glider flying virginity in a Slingsby Sedbergh in 1959 and I had done three widely separated circuits in K-13s at Nympsfield, Booker and Kilkenny in the last few years. But here I was, a 43 year-old kid, who was so keen to start gliding in Southern Ireland that I had agreed to buy a third share in a Falke, and I was standing at the inquiry desk at Lasham on a fabulous summer Saturday morning.

The lack of local gliding facilities in Ireland meant that for me it had to be a motor glider or nothing, and we were all set to invest. Since no one has invented the SLMG rating in Ireland yet I was already doing a PPL course, but at this stage I was not even solo, learning at Cork Airport in a Cessna 150 of advanced age.

A business trip got me to England and with work finished on Friday I would have been mad to go straight back when I could be at Lasham the next day. When Saturday dawned it was clearly going to be a ripper. Not your average fine day, but the sort that makes you realise that even compared to the Mediterranean or Calfornia, there is absolutely nothing to beat a fine English summer's day. Funnily enough this was not what I'd been hoping for. Not being a member of a Lasham club, on a day like this I could hardly expect anything but a queue like a cup final crowd waiting for the chance of a flight.

So there I was, blood chit signed, bright and early thinking that by coming at the crack of the rosy fingered I could sneak in a lesson in the Falke, just to see what I was letting myself in for. A Gadaffi-like figure hurried past behind me carrying two parachute bags.

"You come for a lesson?" the figure inquired without breaking his stride.

I recognised him from his photograph, just as I would have recognised the Pope or Ronald Reagan. A lesson from Derek Piggott? A tune from von Karajan? A night with Marilyn Monroe?

"Yes".

Well, what else could I say?

"Follow me" he said as he strode off.

I never caught up with him in time to tell him I had come for a lesson in Falke flying. By the time we started wheeling a Janus out of the hangar I didn't want to tell him anyway.

So, parachuted up, sitting very comfortably, ready to begin, we linked up to the tow plane and we were off. Up till that moment I kept thinking there must be some mistake. The real student was about to come striding over the grass and I would be thrown out to wait my turn like the day-tripper I secretly was. But no one came and we were on the way, up, heading for a Constable sky with welcome signs all over it.

At 1500ft there was a bang as the tow rope dropped away and we were alone.

"You have control" came a voice.

Me? Control? Does this guy know who he's got up here?

Sure enough, I had control. I could tell I had control because the yaw string behaved like a windscreen wiper as I vainly tried to co-ordinate a few tentative turns. But then delight! the vario started squeaking and we were on our way up.

After explaining that my good fortune was due to his frustration on seeing a Janus on the ground on such a perfect soaring day, Derek showed the patience of Job as I floundered around in one thermal after another. He showed me how it was done and, by Jove, up we went.

And then the special thrill of diving out and heading off. Out to the north-west. Another thermal took us up to 4500ft.

"Don't bother with them unless they're really big" came the instruction from behind.

... driving that airborne Ferrari over Berkshire skies

Soon we were over Newbury racecourse and Derek showed me the locality. Map reading interspersed with driving that airborne Ferrari over the Berkshire skies. Over in the far distance we could see the steam off Didcot power station.

We circled occasionally. No panic. Just whenever the audio started beeping like it was about to bust. Speed down, flaps down, vario on to "climb", circle around and up we went. Every now and then I could feel a bootful of rudder going in. No doubt Derek just reminding me that the yaw string should at least occasionally be vertical. Actually I was mistaken. He never touched the controls without saying. I was just discovering what a stalled rudder feels like.

We headed on. Over Hungerford I could see my old alma mater in the distance.

"A long time ago I was at school there" I admitted.

"Shall we take a look?" inquired Derek.

Silly question. Soon we were looking down on the establishment I hadn't seen for 25 years, and never from this perspective.

From Marlborough we turned south. Nose down, flaps up, vario on cruise and away we went. Over Basingstoke and the M3. And then head for home.

We verified the universal rule in gliding that the thermals are always most powerful on your final glide when you don't need them, so I was able to really push the nose down.

140kt!

I felt like Jonathan Livingstone Seagull. Had anyone else ever been this fast before? Wait till I tell my instructor back home that I was flying faster than the Cessna's VNE... without an engine!

All too soon it was over, the circuit set up, the approach and landing.

As the Janus rumbled to a halt I knew that this was what I wanted. My first taste of drink had been champagne.

Thank you Derek Piggott. You later gave me a flight in the Falke, and I now fly my own whenever the Irish weather lets me, but I'll never forget that special flight in a smooth sleek glass machine. Now I am doomed to start reading my *S&G* from the back... Looking for the PIK 20E, motor Nimbus or DG-400 that can bring back the moment.

SAILPLANE NEWS



The Discus BT's maiden flight was in September and this Standard Class motor glider fills the gap in the Schempp-Hirth turbo family. The only differences to the pure glider are the aluminium welded fuel tank behind the pilot and the 55lb higher empty weight with the built-in engine. This version weighs 275kg (606lb).
Photo and details from Peter F. Selinger.

THE PAST LIVES ON...

A story of dreams and dreams come true, of rescuing forgotten glider drawings and thoughts of a National Gliding Collection

Just ten years have come and gone, some with weather best forgotten, since a surprise call from Martin Simons told me that up in the loft above his old office lay most of Fred Slingsby's archive of drawings of many of his pre-World War II gliders and sailplanes, built up at Kirkbymoorside in the 1930s: things like the Petrel, Gulls I, 2 and 3, the Kites, Buxton's Hjordis and John Sproule's Kadet - and what else, we wondered? - yes, and one you have never heard of: a full set of plans for the Barcarole, like a Kite I fuselage with a Rhönbuzzard wing, if my memory serves.

To me, an even bigger surprise was that George Burton, then MD at "Sling's" was prepared to release them into suitable care; thus it was that on Monday, June 5, 1978, Martin, Dave Braham and myself presented ourselves at "the factory at the far end of Ings Lane". I wondered . . .?

What then happened opened my eyes truly wide. Long had I, as I believe had others, thought that all had been lost in "the fire" yet, now, here it all was, all rolled and dusty, a great mass of frayed and yellowing paper, almost all the history of Slingsby's. I wondered more . . .?

I admit to being an incurable aeronautical romantic. Drawn into my lifelong hobby as a schoolboy aeromodeller (well, it was dad's magazine, anyway, was *Aeromodeller*!). Drawn to Dunstable's steep concrete slope on my 17th birthday: "What is that?", I asked: "That's the Willow Wren - that'll *never* fly again". Little did I dream, then, that its future still remains to be determined by my ever-busy-and-soon-to-be-retired-fingers - for it *will* fly again, one day.

Then, as a mere lad with a brand new C badge, learning my fitter's trade at Cosford, a National Serviceman. Taking a Saturday bus ride to Wolverhampton, on to Shrewsbury, and to Church Stretton, and a long, long climb on foot up above Carding Mill valley to cross the great whale's back of the Mynd; on past Pole Cottage, to find and meet Teddy Proll, and to see Espin Hardwick, eased gently into his beautiful varnished Petrel, and to glimpse, then never to fly again, his Falcon 2 - Slingsby's first production sailplane. This was on April 24, 1949 and my logbook tells me: a check ride with Roger Thwaite in the T-21 and I'm cast solo to soar their beautiful site: then two weeks later, another quick T-21 ride with a Mr Hurrell, and I'm catapulted off in the Kite "Gracias" one blissful spring evening to soar away into the setting sun, up there, alongside Hardwick in his Petrel.

Never then did I even for a second, dream that I might own that beautiful Petrel, and fly 130 hours in her, and . . . the Falcon . . . sadly, burned on bonfire night 1955, I later learn. Up there, in the dusty rafters, I recall Espin Hardwick, who died in May 1954, and who did so much to establish the Midland Club, ensuring it stands as it does today . . . still, I wondered . . .?

Piles and piles of paper: carefully, we lifted it down, loaded it into my car, and on to a borrowed "six-by-four" trailer: the metal tubular cans, and wooden racks of a drawing office of years gone by . . . when Sproule was a mere lad! Down came Hjordis and Hengist, and all the rest. Norman Ellison went home and fetched Petrel and Kite. Down came King Kite, Falcon 3, Prefect, Grunau, Grasshopper, "Peterborough Guardian" (no, ma'am Editor - not a newspaper from just up the road, but a pre-war light-plane project!), Baynes Bat, trailers, Fred's boat, and all.



"Thank you Falcon, you make a lovely contrast with your glistening wings."

Safely stowed and covered, we bid thanks, farewell, and thanks again to George, and drove thoughtfully south . . . and still wondered . . . The sheer responsibility I felt for all this paper history was enormous, for I had claimed title, on departure, to ensure that, in my lifetime, at least, *I* could determine that it would *never* leave the gliding movement I loved, perhaps to be trapped forever, maybe inaccessible, down in a chilly vault. Still, I wondered . . .

Then came Andrew Coates's incredible offer, to sort out and catalogue it all! Gratefully, off it went to Harpenden, and weeks later, no more did I wonder, for to my delight and total astonishment there, complete, intact, and less only a few end-of-wingtip profiles, were the 20-odd original drawings which Fred had copied in 1930, and then built his own "British Falcon", which he'd flown at the Mynd, and which had inspired Hardwick to order one: the first British production sailplane; the Falcon 2 (differing only with nicely rounded wingtips); and the Vee-struts of which used to frame Hardwick's portrait looking out to the west. (Where were they last week, folks, when I called for a cuppa? Varnish them, please, and put them back.)

Now, since, in 1973, Ron Davidson had declined to sell me back my "old" Petrel, I'd traced the other to Eire; the old O'Grady, Pick and Burningham machine from Newcastle, long since away to the Emerald Isle, resting now, after Diamond heights among the Wicklow mountains, suspended above the Shamrock 707s, loaned to the Museum of Irish Aviation, keeping company with a retired Kite 2. Fortunately loaned, and not given: for I was able to purchase shares, borrow my old trailer from Ron, and meet her in a container at Preston, build another trailer, restore and fly her. Many have flown her since: now she, too, awaits the busy-fingers-of-retirement before she feels summer lift again.

Along, too, had come a Kranich 2, even now not completed, but so carefully stored, the Willow Wren, a couple of derelict GB 2Bs, a truly dreadful Dagling and a whole pile of fractured Oly. Spare time was non-existant: try flying a 737, and building yourself a Tiger tug, *then* buy a Dragon Rapide and operate a pleasure flying service. Carried away by it all I tried, unsuccessfully, to float the idea of a National Gliding Collection and with it, a "tenth production Falcon" - a living and flying memorial to Fred and his craftsmen of Kirkbymoorside.

So: a place for all this, and maybe other beautiful hand-crafted great wooden birds of the past. For all the drawings, joined now by Elliots and Robert Kronfeld's works, and the ill-fated Sigma:



". . . but you have to be careful circling, for it's like flying a large umbrella: you see not whence you go!"

my carefully assembled full set – yes, from 1930, not just 1950 – of *S&G*, my gliding library, a workshop for restoration, an archive and library and, maybe, that Falcon I.

Not quite unsuccessful, though: my project, for the Falcon eventually matured. I'd planned a "communal build", component by component, with the builders to become the owners on completion: but it did not quite work out that way. Fired with enthusiasm, John Sproule himself became involved as, later, did Ken Fripp, at Southdown Aeroservices, at Lasham. Time passed, and slowly the project matured, though no longer with my involvement.

Then at Lasham, to the International Vintage Glider Rally in 1986, in G-MOTH, to tow. An *en route* night-stop at Dunstable, then a long flog into a strong southerly: 70mins, that took: no doubt you would be faster, now, Robin, in your ASH-25, and *you'd* use no fuel beyond *your* launch! Then, as I put the Moth away, further down the hangar, the shining swept wing of the Falcon; Ken's beautiful reproduction complete at last.

Payable in pound notes on the quayside at Southampton

A week later, I watched from afar when this machine I inspired was brought out for its first flight, to be taken aloft by Derek Piggott. A lovely summer day and, high above, the gentle tracery of her slim spruce strips and fine ply, glistening as she turned gracefully and easily in the summer sun. Then, gently down, keenly watched by Ken. Pleasing that, that he should see his last creation fly *just that once* . . . Watched also by a hundred other vintage enthusiasts. And I heard rumours of a sale abroad, so I counted my chances and made an offer: "Payable in pound notes, Ken, on the quayside at Southampton, for she should not really go abroad, you know . . ."

Weeks later, Sir Charles Dorman phoned, after Ken's sad passing, and inquired if my offer still stood. It did, of course, and its trailer was added to the deal. The offer was renegotiated to include this; Derek did one quick ASI calibration flight, and I towed her home, her first cross-country, in a trailer, around the M25!

The next year's chances of flight were spoiled by the sad accident to the Dragon Rapide, and the planning and organisation of its rebuild (coming along nicely, thank you) and the sad politics surrounding our team efforts at Duxford, so that it was not until early this year that I "performed an inspection", filled in the F267, and applied to Dick for a permit to fly. Leave was out of the question, as I'd blued my summer lot on a farcial stab at the Dunstable Regionals (draw a veil, Ed, please! – I'm embarrassed!) thus there had to be a "negotiation with rostering"; but it all worked out, so I stepped from my shiny 767, round the back of the hotel where she had stood all week, up the M62, weaving in a gale, over the Pennines, and up "the Bank".

Luck had changed at last. A nice calm Friday, pre-VGC Rally, and a three-hour spell finding out how to assemble it, locking off the "bottle-screws", checking control movements and so on. Eleven pins hold the wings on, plus five turnbuckles, two clevis pins for the "leading wires" and two nuts for the wing fairing: and at the not-very-far-end, two struts, four nuts, six cables, nine safety pins . . ." and a partridge in a pear tree! Much amusement in trying to mount the beast, for I'm "not small": five attempts, of which the third actually ended inside it, but with my left leg trapped beneath me on the seat: "Are you ready for the cable *yet*?" Then, a nasty feeling that they might have to derig a wing to get me out or that if I moved too forcefully, they might not need to, for it did feel rather flimsy! Having been helped out, attempt four was even funnier, then the penny dropped: you "swim" in from the left rear, head first, right over the "flight deck", and on beyond, keeping the pitot to your left, until *both* feet are over the seat. Then, very carefully U-bend – or *you unbend*! – anticlockwise, when viewed from the starboard wingtip, until seated: check *both* feet on the pedals – but *then* it *is* very comfortable.

Yorkshire GC's Cub, with half-flap, provided a 40kt tow to 3000ft, followed by a gentle descent, stalls, turns, a dive, and position to a "high gate" 200ft above where the A170 crosses the Bank, at the north end of the site, and a long, gentle, sideslip to settle just short of the clubhouse. Care, here, for there are *no brakes*, and I recall Tutors of youth, which suddenly improved to better than 1:60, two feet up, if you had too much speed, and a rapidly growing hedge facing you – only here it's a cliff top drop!

Safely down, it all had to be unravelled and put away, for tomorrow, her debut. for our real purpose this weekend was to attend at the "Slingsby Survivors" reunion at "the factory". Met by Jim Tucker and Roger Bull, we rigged indoors in company with Michael and Tony Maufe's Kite 1, and David Jones's King Kite – another non-existent type arisen from the great archive, at David's own hand, following my teasing of him at the 1976 Dunstable Vintage International –remember that one, folks: **The last good summer is 12 years ago!**

A pleasant day followed. Twenty-two "survivors" were present including, to the delight of all, Mrs "Fluff" Slingsby, now 92, who was photographed surrounded by Fred's past craftsmen around the Falcon's nose. Then we all lunched splendidly in the original works' hangar; then followed a truly splendid display by Norrie Grove in the T-67 Firefly – we all liked the 8-point hesitation roll that arose out of the gap in the trees at the east end of the site, close to where we stood: what a splendid aircraft. The rides for all, including "Fluff", in the SAH-2200 Hovercraft, then on all around the factory. Fred, your old firm is alive and well: T-67 production, gondola and empennage for the Skyships, Chipmunks under repair, the T-67 trying very successfully not to fall to bits in a cruel shaking test-rig, certain gliders in for certain "pin-jobs", and lots more: full activity, prosperity, well done, great to see it, though sadly I have to say it: not a world-beating British sailplane in full production . . . just *memories* of



". . . and afterwards you also have to un-U-bend . . ."

spruce, ply at 1d/sq ft and casein!

But a splendid day ended for my crew, Peter Kirk, and myself being allowed a drive of the Hovercraft up and down the strip: thank you Justin, you were *very* patient. And thank you, Jim, for all the hospitality, and thank you Roger; and for allowing my little Falcon her so-appropriate debut: a great day!

And so, back to the Bank. Next morning, a flat and misty calm, a change from "force 8 fog", which gradually came to life so that, with a much quicker rig, mid-afternoon allowed a "safety" tow, rather than a winch launch – on to the hill for the Falcon's first soaring flight. I believe this will have been the first for the type for close on half-a-century since the last, probably also at Sutton Bank – 1938? Also a brief flirtation with her first thermal and a gain in lift of a full 600ft – better by far than my awful Regionals! Finally, as cold began to affect my chest, and "throat icing" became imminent, another carefully slipped approach, this time round the back of the clubhouse on to the shorter take-off run area. ➡

(Must remember to pad the chest with an old *S&G* next time.)

Then, weekend window closing fast, a derig, and away next morning back to Manchester for an early Ibiza: strangely heavy, those hydraulic controls, next day!

So. A Falcon flies: very nicely, thank you. Very light on the controls, for Ken has cheated, bless him, with ball-races everywhere. Very nice in pitch, and very stable, comfortable to sit in, but you have to be very careful circling, for it's like flying a large umbrella – put the wing down to circle, and from then on, you see not whence you go! Add to that, just 27kt. IAS, and you need to keep a sharp look-out astern for over- and, maybe, under-takers. Performance: well, Mike Hodgson's Tutor was generally just below me, except when he was cleverer with the thermals: about T-21, perhaps, and the hang gliders were not far below – but I certainly got more *pure flying* than in my awful Regionals!

But time has marched on: techniques are so different, glass and carbon are here to stay. This little memento of a past era lives now, yet will need care; can, and *will* only fly on gentle westerly days at the Mynd, Camphill, Sutton Bank and Dunstable, or on those long-gone calm summer days of my youth: a Grunau at 5000ft, and only a mile or so downwind, just below cloud, singing for joy: or, for me, a dash 40 miles downwind from Dunstable to Blackbushe for my Silver almost 40 summers and over 20000hrs ago. Not for this one the heights of Aboyne, no TPs, and all *her* 500s will be trailered!

So now my precious vintage beauties – Petrel, Wren, Kranich, even the Dagling coming alive in Peter Underwood's careful hands, are joined by this lovely Falcon; to keep my fingers busy in retirement. My privilege it will be, to soar again 50, even 60 years on, in these beautiful machines, in my retirement years.

But where will they all live? Where will all this lot go and be cared for, because life has it that as time marches, by its very nature it creates history, and history we must preserve . . .? Will there *ever* be a National Gliding Collection – for there is so much of British Gliding since Itford 1922, and the famous Gliding Lunch of 1929, that needs preservation? All those plans: albums of photographs, Doc's precious library, all need a caring home, for it is *our past*, while you, Dear Reader, with your exquisite slippery ship is the present and future of our movement. Could we not take the lead from the Wasserkuppe, and Elmira, and create our own sport's museum?

Maybe. I hope so: *I* need no more inspiration: nor am I biased and living in the past: remember *my* slippery ship almost 600 times as heavy as the Falcon, with its Inertial Reference, EICAS, autoland, and all. For I have soared aloft then, now, all my life, in fact.

Thank you, Falcon, you make a lovely contrast, with your glistening wings. Thank you, too, Fred Slingsby, for the inspiration: thank you, Ken Fripp, John Sproule: and Martin Simons, and Andrew-the-sorter-of-paper and Peter the-crew-this weekend. Thank you, others of the past of gliding, to numerous to name. Thank you, too, Alexander Lippisch, for your little "Falke", even before I was born.

Thank you, also, Mr Boeing.

Thank you: Gliding.

SOARING CENTRE OF GB?

Tim Wilkinson, a committee member of Black Mountains GC, doesn't think the Talgarth site is exploited enough or its potential fully realised.

How many of you are sitting quietly at home looking at this new *S&G* having over the past months read more and more details of expensive gliders and more and more competition reports? And have you been wondering just where gliding is heading and what are the basic aims of our sport and our members?

Let me paint a different image and give my view of what we should be aiming for in the future. Looking at the French Soaring Centre, perhaps we should be thinking about a new soaring centre in the UK with a large fleet of aircraft, where exhilarating gliding days are within reasonable driving distance, where support from the BGA and national coach would enhance and improve flying standards leading to excellence and where flying is never dull.

Now let me introduce you to the new Soaring Centre of Great Britain – Talgarth. A few of its advantages have to be mentioned.

1. Ease of access. Motorways bring you close to mid Wales so it is within reasonable driving distance for most UK pilots.
2. Few airspace restrictions now or in the future.
3. Accommodation and food is generally cheaper with a well established cottage industry already catering for the leisure industry.
4. The most marvellous scenic countryside in the UK. You have to see it to believe it.
5. Thermals throughout the year, enhanced by the mountains, for an earlier start to your cross-country enabling long tasks with ridge runs to get you home.
6. Long ridge runs through the Black Mountains and Brecon Beacons.
7. Wave flying – Mike Costin gained 32000ft.
8. Other activities include trekking, cave exploring, canoeing, sailing, water skiing, fishing, hiking and visits to coal minings.
9. Winter training and flying – you can still thermal in the mountains as well as ridge running and wave flying and reasonable cross-countries are feasible.
10. As Talgarth is at the base of the mountain the airfield stays clear of cloud far more often, allowing exciting flying under cloudbase. These mountains are large enough to allow ridge running even when the cloud is on the hill, which is why Talgarth has more flying days than most other sites.

Following the introduction of summer courses, it was soon realised how much more could be achieved with a little knowledge. The site has such a geographical advantage, experience has shown we have only just scratched the surface. So, for the first time, we have a full time instructor, Jerry Martin, with many years' experience of gliding at this site, who is respected by all of us. He will also help and educate new pilots in mountain flying so they soon realise what can be achieved and learn how to explore the full potential of this area in safety.

At a relatively small cost full and country members will have a year's unlimited flying – £95 for the K-18; £85 for the IS-30 and £80 for the Blanik – which will encourage them to fly more often and be current, while enjoying the site without the worry of further charges. For those wishing to fly all three aircraft, the cost is £200.

The two-seaters are ideal for the early solo pilots who need instruction on mountain flying. Later they can fly with a safety pilot, all at no extra charge. And when a pilot cleared for the site takes a passenger they will be charged half the normal rate for the second seat. But, as has often been said, it isn't necessary to have flown at two other sites before coming to Talgarth.

The site has been established with an enormous amount of effort and energy by John Bally and Derek Eckley (owner of the farm) together with a lot of help from others. Thank you.

Talgarth has shown many times that it creates its own weather and conditions. I know of no other place where, for example, in the morning you can fly in SW wave and ridge run, in the middle of the day turn to thermals and ridge running and in the evening have NW wave and still more ridge running. This is not uncommon.

At other times when we have 8/8 cover an easterly wind will create a wave slot over the site with strong lift taking gliders up to around 10000ft. On one occasion the lift was so strong the tug pilot, not having been able to get into a glider, turned off the Pawnee engine and soared it into wave.

We thank all those who have supported Talgarth regularly over these last years and established the site. It is a shame that some of the lessons learned have been blown out of proportion as this is a young site with such potential. Now that we understand, we believe it is worth a visit for all the adventure and thrills. Give it a try with our new scheme.

Normal hire of aircraft and daily membership is still available and we will report back after 12 months to tell you whether our scheme was successful. For more details or to book winter courses please contact Derek Eckley, Tel 0874 771254 or Tim Wilkinson, Tel 0234 7088877.

INTER-CLUB LEAGUE FINAL 1988

The weather forecast was for persistent rain yet teams from seven Leagues made the journey to RAF Odiham for the August Bank Holiday and the final was a success with two competition days

Every year we seem to say that the weather is getting worse. Certainly for the Eastern League this was the worst year ever - we met on six weekends giving a possible 13 days of flying, and despite much effort and outlanding we failed to achieve a single contest day. We were re-named the Inter-Scrub League!

I hear reports that recruitment in many clubs is disappointingly low; this may well be because potential new members see so many long faces. How many years ago was it that on almost any evening the bar would be bubbling over with excited "How I Dunnit's"?

Starting from this depressing background, the Inter-League Final was an outstanding success. The weather forecast for Friday and Saturday was for persistent rain, and yet teams of pilots from seven Leagues, together with many *hors concours* pilots, made the journey to RAF Odiham. The prize goes to Peter Turner of Trent Valley who was the first to arrive on Friday 26 (with caravan) and also, after a second journey, the last to arrive (with glider trailer)!

Everything that was set up for the benefit of the visitors and for the competition worked so smoothly that it was easy to forget the long-term planning and hard work that had gone into it by the members of Kestrel GC, particularly by Jane and Steve Nash. They undoubtedly felt even more anxious than the visitors about the weather and the prospect of not achieving a worthwhile competition.

While there wasn't a contest almost none of the expected rain occurred

Saturday's weather did not permit a contest, although almost none of the expected rain occurred. The direct-tow wire launch system and a Kestrel GC K-21 were put to good use - particularly by the Trent Valley group. Saturday night's barbecue proved delicious, filling and very popular.

Sunday's forecast was slightly better and tasks were set. **Novices:** 94km O/R Didcot; **Intermediates:** 149km triangle Didcot, South Marston; **Pundits:** 159km quadrilateral Didcot, South Marston, Marlborough.

Messages arrived of good soaring conditions in the west, moving slowly our way. Something of a clearance arrived by mid afternoon and we were flung optimistically skywards. My personal experience was of a long weak scratch downwind of Odiham until at 1400ft it seemed nobler to head off on track than to return for an abbreviated circuit.

Two teams achieved a commanding lead and set the standard. The Bannerdown Pundit, Simon Hutchinson (Discus) and Intermediate, Andy Smart (Ventus) both turned Didcot and headed for Swindon. Both came 2nd in their Classes behind Cotswold. Pundit day winner was Tim Macfadyen (ASW-20) who reached the third TP at Marlborough to be sunk by a shower. Intermediate winner was Doug Gardner (Astir CS).

Bannerdown's Novice, John Arnold (Astir) did very well to round Didcot and get halfway home to win his Class. No other Novices achieved the scoring distance - although Peter Turner (Trent Valley - Pirat) and Malcolm Gresty (Cotswold-SHK) got close.



Andy Smart from Bannerdown who flew a Discus into 2nd place for the Intermediates. Photo: Ian Clare.

Greatly relieved at having flown, but weary with much retrieving, we were welcomed back to Odiham by Kestrel members intent on outdoing Saturday night's barbecue.

Monday's weather could have been perfect with a lower inversion! Thermals were excellent but cloud tops grew too tall and produced heavy showers by early afternoon. Sadly these prevented the Intermediates achieving a contest day, but the Pundits and Novices fared better.

Novices: 89km O/R Middle Wallop tower. Five beat the rain and finished the task. The clear winner was Peter Joslin (Essex & Suffolk - Libelle, 73.9km/h), followed by Malcolm Gresty (Cotswold-SHK, 60.6km/h), John Arnold (59.7km/h), Peter Turner (54.6km/h) and A. Grimley (Avon/Oxford-Dart 15, 53.7km/h).

Pundits: 151km triangle Hungerford railway station, Salisbury Cathedral. By the time the Pundits were heading west towards Hungerford the showers were already there and no great distances were achieved. Again it was Bannerdown and Cotswold in the lead. This time Tim Macfadyen of Cotswold was 2nd with 41.6km, and Simon Hutchinson of Bannerdown won the day with 42.8km. Ray Smith of Kent (LS-3) came 3rd.

Thanks to Tim Newport-Peace and his computer the scores were all ready while the retrieves were still taking place. As expected they showed a very closely fought contest between Cotswold (1st overall Pundits, 1st Intermediates and 3rd Novices) and Bannerdown (2nd Pundits, 2nd Intermediates and 1st Novices). Essex & Suffolk (East Anglian League) making their first appearance in the final came in 3rd place overall with nine league points - thanks largely to Peter Joslin who won the Novice Task on the "racing day". Cotswold and Bannerdown had both scored 15 league points, and therefore their "1000pt" scores were compared. Cotswold had 1154pts, but Bannerdown had 1252 - therefore Bannerdown were declared the winners.

We were privlileged that the RAF Odiham Station Commander, Grp Capt John Day, was able to present the prizes at the end of the contest and to award the Douglas Trophy to Bannerdown.

We spent several years trying to encourage the Services clubs to participate in the Inter-Club League. This made it particularly pleasing to be able to congratulate Bannerdown (RAF Hullavington) on winning the final, to congratulate and thank Kestrel (RAF Odiham) for all their good work in giving us such a successful and enjoyable final, and to thank RAF Odiham themselves for permitting so many visitors to use their active airfield during a sensitive period.

One more thank you - to Ralph Jones: first for bringing his tug to help with the launching, and secondly for cheering us up with the thought that although the weather now appears much worse than the seventies, the late sixties were also pretty duff. So maybe next year...

For next year I'm delighted to report that Four Counties (RAF Syerston) have asked to join in - we're debating League changes to accommodate them. If anyone has any questions, comments or suggestions please direct them to me, Mike Jefferyes, 15 Sycamore Way, Chelmsford, Essex CM2 9LZ. Tel: 0245 261145. ■

S & G CLASSIC

CHOSEN BY THE ARM-CHAIR PILOT

ALICE IN BUNGYLAND

It is difficult now to recapture in print the atmosphere of fifty years ago, when training was in single-seater primaries, most "launches" were by bungy, and soaring was the prerogative of the privileged few. Perhaps the article which is most evocative is this one, which is not a descripton of anything, but a superb parody of *Alice in Wonderland*. It was written by Lawrence Wright of the London Club, as Doc Slater revealed forty-five years later (*S&G* Oct 1983, p.223).

As Alice came over the hilltop she heard a mild and mournful voice singing the following song:

'Twas morning, and the sliding coves
Did gyre and gimble on the ground.
Reversed were all the rudderfeet
And loud the landingsound.

Just over the edge was a glider which appeared to have landed rather heavily on the hillside. In the cockpit sat the Kite Knight, singing:

Beware the bungybang, my son,
The landingbiff, the turningstall,
Beware the terrordive, and shun
The yankup most of all.

Seeing Alice, he stopped abruptly.

"Have you crashed?" asked Alice politely.

"Not at all," said the Kite Knight, offended; "I am practising down wind uphill landings."

"That sound very difficult," said Alice.

"It isn't difficult," said the Kite Knight indignantly; "It's impossible. But," he added hopefully, "I shall try upwind down hill landings to-morrow ... Excuse me for not getting out, but the machine might fly away."

"It doesn't look as if it would fly again for a bit," ventured Alice.

"True," he said gloomily, disentangling a piano wire from his whiskers; then, brightening up: "but I've had crashes, compared with which this would be a mere bump. Why, the last days of the camp I learned at were like the last days of Pompeii ... How big would you say the biggest part of a sailplane was?" he asked suddenly.

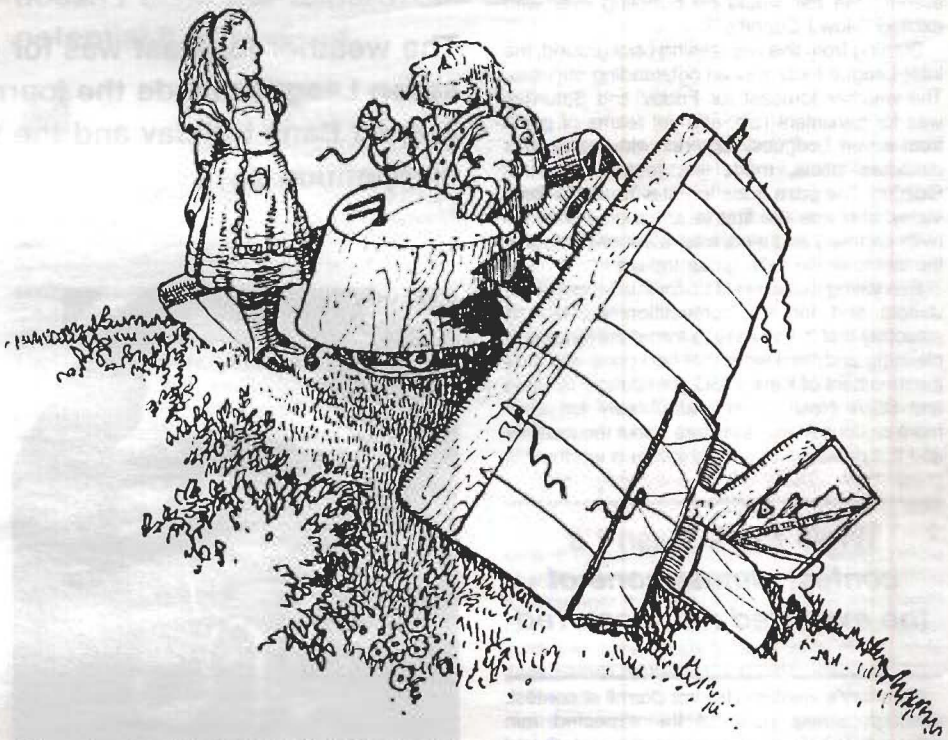
"I suppose about twenty-five feet long ..." began Alice.

"When *I've* crashed them," interrupted the Kite Knight, "you can take them away in matchboxes."

"It must take a lot of matchboxes," said Alice thoughtfully.

"It does. *Ever* such a lot. But we don't usually bother to take my crashery away. We get spades and dig it in."

Alice was toying with the two little tubes on the nose. "Be careful," he warned her. "Those are to work the airspeed indicator."



We understand that this drawing was also Lawrence's work.

"I don't see any airspeed indicator," said Alice.

"There isn't one," said the Kite Knight; "this is a secondary machine, and we aren't allowed them."

"I should have thought it would be very useful to know how fast you were going," said Alice, "especially when you are learning."

"It *would* be useful," he agreed, sadly, "it would be *very* useful."

"But I suppose you always know when you are flying too fast," said Alice, comfortingly, "because you get down so quickly."

"Yes, but how do you suppose we know when we are flying too slow?"

"Because you get down so slowly," said Alice promptly.

"That's what *I* thought," said the Kite Knight miserably, "but I found that if you fly too slow you get down faster than ever."

"That doesn't make sense," objected Alice.

"I didn't say it made sense," retorted the Kite Knight; "nothing connected with this business makes sense. For instance, which is the rudder and which is the elevator?"

Alice pointed them out.

"And if I were doing a 75° banked turn, which would be which?"

"An elevator must always be an elevator ..." began Alice, but was rudely interrupted: "That shows how much you know. And I suppose you think you go up if you pull the stick back?"

"I'm quite sure you do," said Alice indignantly.

"Not it you were flying upside down," he retorted.

"You wouldn't be likely to be doing that," argued Alice.

"Wouldn't I, though? You haven't watched me fly. But even flying the right way up," he went on, "you don't always go up if you pull the stick back. Not beyond a Certain Point ..." a far-away reminiscent look came into his eyes ... "I found that out when I was on **Daglings**."

"I suppose you start on those because they are easier to fly than sailplanes?" ventured Alice.

"They are *much* harder to fly than sailplanes," said the Kite Knight in hurt tones; "we start on the hard ones and end on the easy ones."

"That seems a very silly idea," said Alice.

"It *is* a very silly idea," he agreed.

The wind by this time was howling furiously, and Alice had to sit on a wingtip.

"Call this a wind?" muttered the Kite Knight,

"why, I've seen winds, compared with which this would be Force One on the Beaufort Scale. Do you know, I once flew east at forty miles an hour, and landed an hour later twenty miles to the west?"

"Where I come from," said Alice, "if we travel at forty for an hour we arrive forty miles away."

"*We* might have to fly at a hundred miles an hour to do that," said the Kite Knight grandly; "why, we sometimes have to fly at sixty just in order to stay in the same place."

"Aren't you afraid that the wings might come off?" asked Alice.

"They *do* come off," he answered gloomily.

"That must make it very difficult to get down safely," said Alice.

"You mean it makes it very difficult to stay up safely," he corrected her, "and now do you mind staying on the wing whilst I get a retrieving car?"

"I don't think you can drive a car up this hill," Alice called after him as he disappeared down the slope.

"Nor do I," he shouted back, "but I often try." And as he hurried down, the following song was wafted back on the wind:

But I was thinking of a plan
(Since ***Wrens*** *are painted green*
And always fly so near the hill
That they can not be seen)
Involving Klaxons, coloured lights
And poles marked off with various heights.

My scheme to slot the ***Dagling*** *wing*
Would end for good and all
This bandying with the burbling point
And flirting with the stall.
One might do well to raise K_L
By fitting flaps to the nacelle.

He was now at the foot of the hill, but his last words came back faintly:

My wingtip wheels, my triplane ***Kite,***
My bumpers for ***Kadets,***
My scheme for landing in the night
In floodlit safety-nets,
My floats for ***Falcons*** *lost at sea,*
Are all a great necessity . . .

IMAGINE



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GLIDING IN SPAIN

MICHÈLE WORRALL

GLIDING IN SPAIN

How a power pilot got her appetite for gliding whetted when she went off to Spain on a gliding holiday.

Having gained my PPL in 1984, flown equally three different types of powered aircraft (Grunman, Cessna, Tobago) and started gliding at Portmoak, I decided to extend my experience by flying a motor glider and tasting mountain soaring.

On Sunday July 10, Ken and Annette Barton, whom I had never met before, were waiting for me at Alicante Airport. I was due to spend two weeks with them and fly Ken's Grob 109B having seen their advertisement in *S&G*.



Michèle took this photograph on her 8¾hr cross-country.

Ken and Annette are a very cheerful couple and gave me a terrific welcome. Their villa is in a secluded area near Javea and brought back some of my childhood memories: the beautiful smell of Mediterranean shrubs, an eternal background of crickets singing, hot breezes . . . What a marvellous set-up for a flying holiday! Leisure facilities other than flying are also available. Ken and Annette have a swimming pool and the use of a tennis court at their friendly neighbours's.

The following day I was introduced to Ken's Grob 109B. It was parked amidst thyme and various aromatic shrubs near the hangar on Muchamiel airfield.

Muchamiel is north of Alicante and provides power flying, microlights and parachuting. The choice among the powered aircraft included two Aisas (Spanish low-wing tail-wheel aircraft), a Cessna 172, a Piper Super Cub and a Turbo Centurion. On my first visit to the club, I thought of flying something different during my holiday as a break from gliding. But the privileges of flying the Grob, in particular the quietness (even when the engine is on), the comfort, the good instrumentation and the low cost of flying became too clear cut for me to want to fly any other craft.



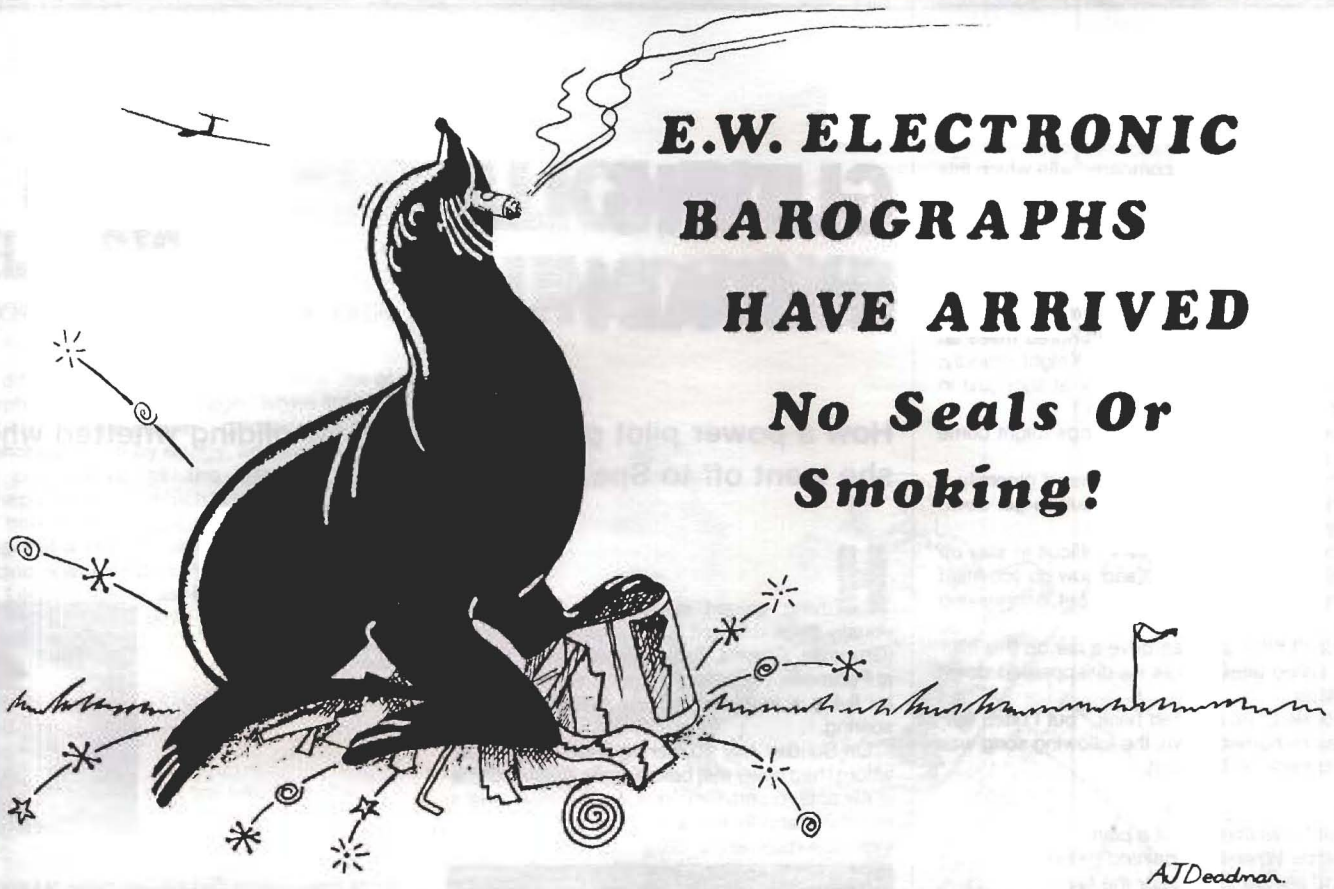
Michèle is a member of the Scottish Gliding Union and started gliding in 1985.

The Grob 109B is a beautiful looking aircraft and is equipped for IFR flights. The aircraft is suitable for all sizes; the rudder pedals are adjustable and the comfortable cushions made it like a flying armchair, the most comfortable armchair I have had in my life! Taxying her on the runway was a challenge. Having never flown a tail wheel aircraft, I found I was going all over the place at first. It was lucky that Muchamiel is fairly wide and there are no obstructions on the sides.

To take off, very little rudder was required. We started rotating at 43kt, at 300ft switched off the fuel pump, gently reduced power to 2200rpm at 50-55kt and changed pitch from fine to coarse by pulling a red knob attached to a long cable located just below the feathering handle. When the pitch was in coarse we increased the airspeed to 60kt and the power to 1950rpm and the thermals were already carrying us away. Soon we gained enough height. We could then gently close the throttle, wait for the cylinder temperature to drop to 100°C, turn off the ignition key and feather the propeller by pulling the handle. When the engine stopped all was calm and beautiful in the glorious sky.

Muchamiel airfield was busiest in the mornings and evenings when thermals were minimum. There was no club flying in the afternoon and the sky, thermals, waves and rugged rocky mountains were ours. The mountains near Alicante are 3000 to 4500ft high and all quite spectacular. Being a keen hill walker, I felt the urge to climb them. But the pleasure of soaring became far more intense. The adrenalin flew at a greater rate.

Under the auspices of Ken, my flying skills were improving everyday. Accurate flying, quick ➡





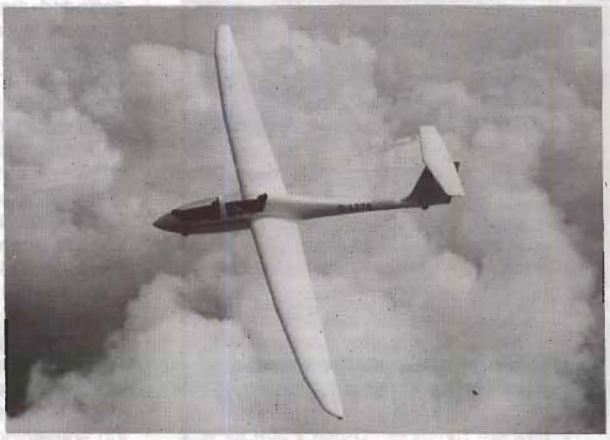
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decision making on taking the appropriate path, not getting into tricky situations, and finding the best lift became a great challenge. Lift was occasionally very strong and in some of the thermals we were getting a rate of climb over 1000ft/min. Thermals of this type are more usual in spring and autumn. Using the anabatic wind and thermals, we could stay airborne for long periods of time and soar great distances.

Besides mountain soaring, we had the opportunity of crossing large valleys and when the thermals were getting weaker and altitude was decreasing, there was no need to land out. It was easy to start the engine either by increasing the speed to 80kt and slowly unfeathering the propeller or using the starter motor. It is so much nicer to fly in peace without an engine but the presence of an engine is reassuring because it means that you are unlikely to have to land out in a foreign country.



Ken Barton photographed by Michèle.

At the end of my first gliding week I experienced wave flying. After soaring a few mountains we came to an area of cumulus streets. Ken took me to the upwind side of a cloud street and we came on to a very smooth flow which indicated wave. The lift was not particularly strong but very smooth and very pleasant. The Grob was happy to climb by herself at a rate of 400ft/min.

Local soaring and cross-country flights were possible any time during my holiday. The weather was dry and hot everyday, with good visibility except for one morning when we had drizzle – the natives were very happy because they had seen no rain for seven weeks.

The real challenge of my gliding holiday was an 8¾hr cross-country, my longest so far. The previous day I had planned a 323nm cross-country, Negratin dam (120 miles west of Muchamiel), Sierra Nevada, Almanzora estuary, Alicante VOR, estimating my total flying time (including soaring) to approx 7hrs.

I ended up covering more than 400nm, after flying away from my track a few times, and used less than 2hrs of fuel. That was terrific. My first leg was delightful until I came to a large valley after 2hrs soaring and started worrying about my position.

Had I been soaring the wrong mountain and gone miles north of my track? Ken, alert as ever, suggested I go for a massive rocky mountain just ahead and do some more soaring to gain height. I was happy not to have the engine on and followed his advice.

After soaring this massive 5000ft rock, I realised it was hiding a large lake. My heart sank because I was unsure of our position. I felt queasy. Ken suggested I look at the various features: shape and direction of the lake, location of the dam etc. My concentration was fading away. I decided to use the instrumentation, took a fix using Yeste VOR and Alcantarilla NDB. What a surprise! It was Negratin lake, with its dam on the west side, my first TP. I realised that it was so easy to get enthralled with the soaring and forget about navigation. The sight of the 11 000ft Sierra Nevada with traces of snow in the distance made me feel better.

Before soaring Sierra Nevada, we went over a large plain, like a desert, crossed by very deep ravines and I had the impression of flying over a completely different world. There was no sound at all on the radio. No one had called the whole afternoon. It was delightful! At the foot of the Sierra Nevada, the adrenalin began flowing.

We had to start the engine because of loss of height. But we soon found lift and gained height and the Grob was prepared to soar to 11 000ft. Ken decided to take a video film. And I was left to do the soaring on my own. I was perspiring heavily due to sheer excitement and fear.

Though Sierra Nevada seemed to be quite a gentle mountain attracting wild horses and humans on the top, I felt at times when Ken reminded me to fly closer to the mountain that the line between fun and danger in mountain soaring seemed fairly thin. I was not surprised that the following night I was still soaring Sierra Nevada and still perspiring heavily. The memories of these exciting and spectacular flights will stay with me for a long time.

GLIDING WITH THE BARTONS

Annette explains how their Spanish venture has grown

The concept of the dream came to reality when a young and intrepid student persuaded us to take him on a different sort of holiday in our "Amy", the Grob 109B – a trip of over 3000 miles visiting France, Portugal and Spain including the challenge and adventure of mountain and thermal soaring.

So began an idea which like Topsy has "growed" this year. A small advert in S&G has brought a variety of guests to our lovely villa – some alone, some couples and several families, all of whom survived my B and B!

To Ken this has given him the joy of passing on his vast knowledge and experience of a different kind of gliding, giving wider horizons to other glider pilots. A type of flying not normally achievable except by the most experienced pundits on one or two days a year.

To us both it has meant the fun of sharing our home in the sun with new friends all of whom proved to be great company. Our last visitors for this season were in October but happily our next guests are due early next year when we together with "Amy" will soar away to sunny Spain.

MERRI'S PROGRESS

Another Thing I'm Learning!

I've spent a lot of time in the club K-18: I did my 5hrs and my 50km in it, not to mention several long soaring flights. When I look to higher performance gliders and longer cross-country trips that someday I might be considered for, several considerations cross my mind. They all fall under the general banner of skills to make these trips possible. When I "local soar" I always take a map with me, so I get more habitualised to and comfortable with navigation. It can be pretty startling to see everything on the ground but your designated finishing point, only to discover that you've been circling directly over it for the past twenty minutes!

I try to set myself little tasks around the airfield, weather permitting. This exercise is invaluable if only for one reason: it teaches the most efficient way to get a relatively low performance glider into wind. Here I find a bit of subtlety is priceless. When I fly under a cloud street, if I relax my hold on the control column, the glider will indicate where the lift is before the vario has even caught on.

If, as we're flying along, R48 starts to drift gently to the right, then I know something must be pushing it in that direction. A gentle bank to the left and – hey presto – the beginning of a thermal. There is no magic secret to making headway under a street, at least not for me at my level of sophistication. One can look at the cloudbase and pick out the darkest bits; they should be working, but the reactions of the glider itself to the airmass in which we are travelling provide me with my best source of information.

I'm not clever enough to have sorted all this out for myself. I make hard use of a gaggle of trusty full Cats in the bar. I find that twenty minutes of discussion with them regarding certain problems and projects I might have gives me enough to go on for the weekend's flying. It is said that in gliding, the learning never stops. I find that my learning curve, at the moment, is particularly steep.

The advice given me by my panel of experts continues the tradition of the pre-solo instructional flights. I'm only glad that they have the patience to cope with my endless series of "whys" and "hows". One of the most important concepts worth learning is to make use of experience, your own and certainly that of others. It's made a real difference to my progress and that of a particular K-18 into wind.

PHILLIP GAISFORD

A NEW SCORING SYSTEM

The Prisma version was first tested at this year's Swiss Nationals and has proved to be controversial

The small grass airfield on Montricher near Lausanne was host to the 1988 Swiss Gliding Championships from May 12-20. At more than 2000ft above sea level, the airfield is situated in gently rolling countryside at the foot of the Jura mountains which rise away steeply to the north. The mosaic of arable and grassland farming with extensive woodlands gives way in the south and west to the vineyards surrounding Lake Geneva. To the north, and toward the border with France, the Jura mellows to a high plateau. So high that the coldest place in Switzerland is here – it is not uncommon for the thermometer to fall below −40°C in La Brevine. The close proximity of the Jura turned out to be a mixed blessing: frequent thunderstorms from this area characterised the first half of the competition period.

The Standard and 15 Metre Classes were represented by 31 and 10 competitors respectively. A minimum entry of eight pilots also permitted the holding of an Open Class competition.

The Championships were the first full scale trial of the Prisma competition task and scoring system devised by Hans Nietlispach and Simon Leutenegger. Prisma attempts to overcome what it's instigators see as shortcomings in the exclusively speed-task form of competition prevelant today. One of it's goals is to give a fairer competition by providing the pilot with in-flight task options, thus encouraging and rewarding individual assessment of the weather. Prisma also permits award of speed points for completed legs of speed tasks, a point which you will appreciate if you have ever landed a mile short of a competition finish line.

Prisma also hopes to contribute towards running a safer competition with the introduction of such features as multiple start points, a scoring bonus for landing back at base, the *foto vache* (a photographic outlanding for scoring purposes) and flight time limits. The latter, though not often required in the UK, are intended in part for use in those fortunate areas of the world where it is both possible to soar after sunset and competitors are foolish enough to do so. Further, Prisma includes procedures and task types which it is hoped will reduce the formation and importance of gaggles.

For the pilot and task setter, Prisma comprises three categories of tasks:

Type A speed tasks, more or less as we know them today.

Type B mixed speed and distance tasks, with speed leg(s) starting either at (or near) the base airfield and ending remotely (B1), or starting remotely and ending at the base airfield (B3), or both starting and ending remotely (B2). When not flying the speed legs, which are optional, you fly to collect maximum distance points.

Type C pure distance tasks with no points for speed at all. Type C tasks also come in three flavours:

C1 cat's cradle with limited flight time.
C2 cat's cradle with latest landing time.
C3 in flight choice from list of pre-briefed distance tasks.

Timing is exclusively by a time-recording camera, *ie* not only pilot operated starts, but pilot operated finishes as well. As the Swiss don't allow you to finish at less than 150ft anyway, handling the camera at the finish line isn't quite as frought a procedure as it might at first seem.

The scorer has a much easier time than the task setter under Prisma as the scoring formula is relatively simple. The points are calculated as $P=(P_d+P_s).F_1.F_2$, where P_d is the distance flown in kilometres, and P_s are the speed points calculated from $P_s=S.D_s/100$ where S is the speed achieved, and D_s is the distance over which speed is measured for the particular task. F_1 is an outlanding factor, and takes a value of 1 if you land back at base, or 0.9 if you do not. F_2 is a normal day factor which functions in a similar manner to "the percentage past Y" in the BGA system.

The arithmetically nimble will be able to draw their own conclusions, but for the rest of us this looks like a low scoring formula, with points for every kilometre flown and no big incentive to go for broke on a speed day.

It is a substantial departure from current competition gliding

Even from the incomplete description given here, Prisma can be seen to be a substantial departure from current forms of competition gliding. However, if you now want to know how in the 1988 Championships this all worked in practice, I will have to disappoint you. Prisma with all its options and subtleties, like many of it's predecessors, pales into insignificance when compared with the biggest gliding variable of all. I refer, of course, to the weather. There were only five scoring days for the 15 Metre and Open Classes, with the Standard Class taking a second reserve day in order to achieve the minimum of four contest days. The following are my conclusions based on the four tasks flown in the Standard Class:

Day 1 type A speed task, 270km. Tactics for type A are much the same as for conventional speed tasks. Nine finishers exhibited sufficient ingenuity without prompting from the system in avoiding thunderstorms on the last leg.

Day 2 type B1 task, with speed legs totalling 130km. A difficult day, not least because the first TP of the speed task spent most of the afternoon in cloud. Some pilots exercised the option of skipping the speed task and flew for distance points only, but were heavily outscored by anyone completing the speed legs. Two competitors managed to return from the remote finish only to be disqualified on the grounds that the track of their final optional leg crossed a TMA. More than half the Class scored less than 50km.

Day 3 type C1 cat's cradle with 3½hr time limit. An unfortunate choice of task for very good conditions which allowed more than 330km to be flown within the allotted time. An optimum finish for C1 requires that you cross the finish line at minimal altitude as your time limit expires. This is rather difficult to arrange in practice. Finishing too early results in unused time, whereas finishing too late represents unused height as the scoring system calculates your position at expiry of the time on the basis of your average speed on the last leg. The scoring rate was precisely 1pt/km, which resulted in a very small points spread, whilst the penalty for poor finishing technique was relatively large due to the high average speeds achieved.

Day 4 type A 240km speed task. The choice of task was again wide of the mark as the blue conditions resulted in gaggle flying being important to the nine finishers. In the Prisma philosophy, this might have been a day for a cat's cradle task to try and break up the gaggles.

After so little actual flying, it is difficult to come to a definite conclusion on the merits of Prisma. It is clear that the task setters job becomes more complex, and dependent to an even greater extent on a accurate forecast.

Poor weather left competitors with plenty of time for lengthy and at times acrimonious discussion of Prisma and the interpretation of the accompanying new competition handbook. It is not an exaggeration to say that Prisma is the subject of controversy in the Swiss gliding fraternity. Due to numerous outstanding protests in all Classes, the final results of the competition are undetermined at the time of writing pending a decision of the Sporting Committee of the Swiss Aero Club. I can merely report the top scorers in the three Classes were J. van Vornfeld (Open), I. M. Binder (15 Metre) and M. Hofer (Standard).

British pilots too can fly in the Swiss Nationals. Should the weather be as unco-operative as it was this year, then the countryside has plenty to offer those with time on their hands. Anyone interested should write to the Swiss Aero Club, Lidostrasse 6, CH-6006 Luzern.

JUNIOR NATIONALS

Booker, August 17-25

This competition was the first of its kind for pilots under 25yrs and replaced the BGA Squad Training Scheme. The winner and runner-up would be given automatic entry to a Nationals of their choice.

Twenty-three pilots took part, four of whom competed *hors concours*, and were subsidised to the tune of nine free aerotows and £100 towards the costs. There was a great variety in cross-country experience amongst the pilots from Silver badge flights alone to Nationals flying. Gliders ranged from Discus to K-18. The practice day on Tuesday, August 16, produced the best weather of the competition with several gaining their 300kms.

Tom Zealley, who first thought of running a Junior Nationals, formally opened the competition at briefing on Wednesday, August 17. Chris Rollings and Brian Spreckley were the coaches and there to give advice and ideas to us about the contest days and inform the inexperienced about what might have gone wrong.

Graham McAndrew, the task setter, gave us a 138.9km trianagle, Calvert junction, Newbury racecourse. Although the sky looked good the thermals were difficult and for the relatively inexperienced pilots it was hard work. Seven gliders crossed the finish line. Even though he forgot his final glide calculator, Tim Scott won the day at 80.2km/h in an ASW-20 followed by Mike Young (AS-19) at 77.4km/h and Peter Wells (Pegasus) at 69.8km/h. Bob Preston finished in an ASK-23 while David Hands in a K-18 flew 121.7km.

Chris Rollings followed us around the task in a Janus at 72.1km/h. Stewart Brooks almost completed the task in a Club Junior, but couldn't find the airfield again and ended up landing in a picnic site car-park in High Wycombe, while Paul Hampshire (PIK 20) took a cloud climb at Calvert junction and then headed off along the wrong railway line all the way to Bassingbourn in Cambridgeshire.

At briefing the next day Stewart received a road map of High Wycombe while Paul was presented with some Beano comics for "light reading!" Chris and Brian chatted with us about what they had experienced flying around the task and concluded that it had been a difficult day with wind shear disrupting the thermals.

The next two days were spent in the Red Baron looking out at the sky but Saturday, August 20, showed better prospects. Two to 3kt thermals were forecast but the wind at 1000ft was 25kt. A 129.6km triangle was set, Calvert junction, Chieveley with a fall back of 107km, Bicester, Goring. As it turned out most pilots took at least two launches attempting to get away.

Steve Jones (Discus), very confident of his navigational skills, took off the first time without his maps! Five pilots landed at Thame airfield and one at Chinnor ridge. The remaining competitors decided enough was enough and retired back to the bar. The wind forecast has been correct.

No task was set on Sunday, August 21, but again briefing consisted of a useful analysis of the previous day's thermal conditions which then led on to a discussion between Chris, Brian and Dave Watt on centring techniques and final glides.

The second contest day, Monday, August 22, began uncertainly with a grey, overcast sky which suddenly developed to the west into cracking cross-country conditions. The task was



Mike Young, the Junior Champion, with his trophy and prizes. Photo: Amanda Deadman.

a 146.4km triangle, South Marston, Malborough, which was completed by all but two pilots.

By 1300hrs classic cloud streets had formed on track to Swindon. Mike Young won the day at 85.3km/h followed by Tim Scott and Steve Jones, both at 81.7km/h. Some of the lesser known names who did well included Edward Downham (Std Libelle) at 66.3km/h and William Pearce (Astir CS) at 63.8km/h.

Just to prove how it should have been done, Brian Spreckley went round the task in an ASK-21 at 99.4km/h. "Phew!" thought those of us who felt our 50-60km/h was respectable. Still, he is the World Champion! However, of all the competitors, the tenacious David Hands starred for getting round at 37.8km/h in his K-18. Although last over the finish line he was 9th overall.

Nothing else eventful happened for the remainder of the competition apart from an excellent party arranged by Sally King and Peter Wells on the Tuesday night.

Fortunately for some Wednesday produced more bad weather, so they recovered in the Red Baron. A task was actually set, a 107km triangle, Bicester, Goring, and the grid assembled. However Graham McAndrew heard rumours that the weather was about to be a repeat of Monday's conditions. There was a fall **forward** task of 144.9km but as soon as we had altered our maps the rain spread in quickly.

With 35kt winds gushing to 40kt on the last day we were set a 100km with alternative TPs. "Are you feeling brave?" inquired Chris Rollings. Needless to say we weren't going anywhere as the blue sky gave way to ominous looking clouds.

Ben and Trish Watson attended the prizegiving. Mike Young was presented with several large trophies and a huge bottle of champagne and Edward Downham and Simon Housden with awards for being the highest placed pilots without Nationals experience.

As far as all the pilots were concerned the competition was tremendous fun and would definitely be supported again. Despite the weather there was an air of infectious enthusiasm and we all had a good time. For several this was the first cross-country since their Silver badge, for others it was a practice for the real Nationals.

Chris and Brian appreciated this somewhat vast range of ability and gave as much of their time as possible to those wishing to ask questions. They did not lecture us but encouraged us. I would recommend any young pilot, who can get a glider, to enter next year. You don't have to fly a super duper glass-fibre ship to do well, as David Hands proved. Thanks must go to the organisers at Booker, particularly Brian Spreckley, Chris Rollings and Graham McAndrew. See you all next year.

FINAL RESULTS

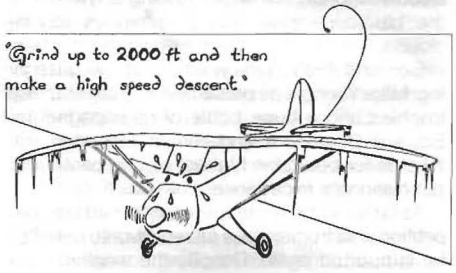
			Day 1.17.8 138.9km Calvert Junction, Newbury racecourse			Day 2.22.8 146.4km South Marston, Marlborough			
Pos	Pilot	Sailplane H'cap	Dist (Speed)	Pos	Pts	Dist (Speed)	Pos	Pts	Total Points
1	Young, M.	100 ASW-19	77.4	2	826	85.3	1	873	1699
2	Scott, T. J.	106 ASW-20	80.2	1	842	81.7	=2	830	1672
3	Wells, P. M.	101 Pegasus	69.8	3	782	78.3	4	789	1571
4	Downham, E.	97 Std Libelle	69.6	4	780	66.3	5	645	1425
5	Jones, S. G.	104 Discus B	(127.0)	9	396	81.7	=2	830	1226
6	Housden, S. R.	97 Libelle	54.2	5	691	52.1	12	476	1167
7	Nicholson, B.	102 Discus	(140.4)	8	446	56.7	9	531	977
8	Pearce, W. R.	97 Astir CS	(102.2)	12	194	63.8	6	616	810
9	Hands, D. S.	86 K-18	(121.7)	10	376	37.8	=15	364	740
10	Brice, P. F.	98 Std Cirrus	(44.1)	14	89	63.3	7	610	699
11	Hodgson, Karina	101 Pegasus 101	(95.1)	11	278	48.5	14	389	667
12	Beard, J. R.	92 Pilatus B-4	49.0	6	661	(8.9)	=18	0	661
13	Preston, R. H.	94 ASK-23	41.7	7	618	DNF	=18	0	618
14	Hampshire, P. J.	104 PIK-20D	(24.4)	17	16	59.5	8	565	581
15	Bradley, Dawn	97 Astir CS	(31.5)	16	43	53.4	11	492	535
16	Caswell, T. T.	100 ASW-19	(6.5)	19	0	53.7	10	496	496
17	Arnold, J. G.	97 Astir CS	(36.2)	15	60	48.3	13	431	491
18	Akerman, T.	100 ASW-19B	(23.0)	18	11	41.4	=15	364	375
19	Brooks, S. P.	96 Club Junior	(58.6)	13	143	(80.4)	17	139	282

THOUGHTS ON THE PERFECT TUG

David Oliver's article in the September issue, p170, really raised some good old basic arguments which to my knowledge go back to 1948.

The analysis presented was an excellent one and based correctly and logically on equipment as it now exists. Any arguments on detail would be fatuous and not terribly helpful. My own contribution to the argument is purely theoretical and design considerations are updated (developed) from an original concept of the mid 1950s.

The problem is we are flying aircraft which were never intended for the use to which we put them. To compound this difficulty most general purpose small aircraft are by nature already a compromise. Further still nearly all power plants currently in use are of **pre-war** origin and not very efficient. They are also air-cooled which by definition means that we operate them under the most horrendous regime. Consider - take-off, full throttle - air temperature 75°F. Grind up to 2000ft, air temperature 50°F, CHT - maximum. Turn off the tap and carry out a high speed descent. It's a bit like being alternately put from the fire into an ice bucket.



Most of the aerofoils used are also compromises - after all the designers were looking for good take-off, good landing (short), plus reasonable cross-country performance and probably payload ability as well, all on limited horse power.

This is not going to produce an aircraft to tow a glider economically to 2000ft in three minutes maximum! The only answer currently is put in a bigger power plant and drag it up. Remember the original Cub was 40hp and the Pawnee is for practical purposes an upside-down Cub with 235hp.

This is mainly fact and in all honesty it's a pretty grim picture.

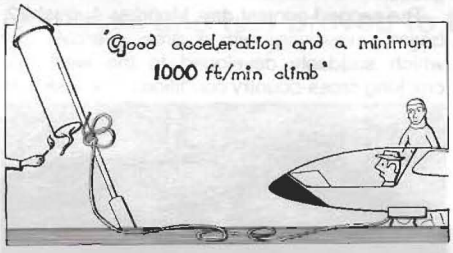
So how can we get a near perfect tug?

Considerations (Specialist tow plane)

1. Purpose - objective.
2. Performance.
3. Purchase price.
4. Running cost/hr.
5. Maintenance and spares.
6. Flyability - controls.
7. Power plant - propeller.
8. Environment.
9. Insurance.
10. Resale value.

1. An aircraft able to tow to 2000ft (nominal) at minimum 1000fpm economically.

2. Performance, good acceleration, take-off 500ft maximum, rate of climb 1000fpm minimum, best speeds to climb range 50-75kt, stall maximum 40kt. Cruise probably not over 85kt.

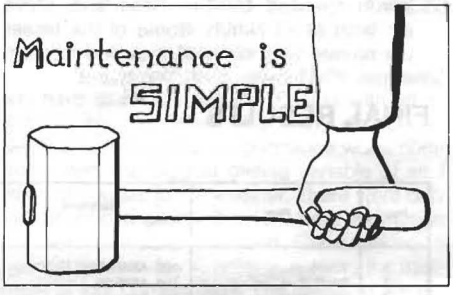


3. Target price £25 000.

4. Considering fuel - (normal) maintenance -oil etc on 500hrs/year but *not* including amortisation or insurance (unknown) and pilots time *gratis*. Engine life predicted at 2500hrs and full replacement. All this adds up to £20/hr. According to Pawnee figures this about covers the fuel alone.

5. Maintenance, which includes normal engine spares, is designed for availability, cost and accessibility. Although obviously a skilled licensed engineer will be required, servicing should be relatively simple, more akin to a car than an aircraft. It is in any case about time some of the magic was removed from this area.

6. Flyability - controls - is a contentious item to be sure. Good responsive controls are needed for certain with mass balance and fairly largish surfaces. However, the wing will be unbroken with full width flaperons. This will give huge strength, a good range of control and ease of access. For the odd cross-country −5° can be put on to boost the relatively low cruise speed.



7. Power plant and propeller - wow - now hear this! The bunch of pre-war (but licensed and accepted) fuel guzzling, oil grinding, noisy vibrators we are using currently really should be queried. The reciprocating aircraft engine really hasn't been much improved for 40 years - and it is horrendously expensive. (Please don't write I've heard all the arguments for years.) For the tow plane I'd go for V8 power - liquid cooled. Let's look at some facts. Accept David Oliver's figures.

New prices - 235hp, £17 000; 180hp, £12 000. We do not know whether this includes accessories.

The ex GM Rover V8 is available in several forms from the 3.5 litre Rover to the 4.5 litre Holden, plus specialist variations. As used by TVR the 350i is 3528cc and produces 197bhp with 220ft lb torque or 390SE is 3905cc gives 275hp and 270ft lb torque.

To give an idea of reliability of a nicely built V8 the unit put in the Libra Motive Morgan stood three years racing and won its class for three years with no problems. Auto engines stand terrible abuse, are neglected, are hammered through the rev range and average over 100 000 miles or 3000hrs minimum. Aircraft engines are looked after, indeed, mollycoddled and 2000hrs is considered good.



Trevor, who worked for de Havilland, Northrop, Boeing and BAC, soloed on first ever glider flight - by mistake - in a Dagling in 1948. He is a technical counsellor for the Experimental Aircraft Association and a builder and restorer of many projects.

We would not use a race tuned V8, indeed that would give the wrong performance. We would, however, use race tuning components to give smoother more reliable running and longer life. Also dry sumping would be used. Not only does this guarantee good lubrication (V8s need oil) but the dry sump casting strengthens the block and cuts 5in off the overall height. Another advantage is a pipe to the gearbox plus the oil cooler and tank can be placed anywhere to suit weight distribution.

The unit envisaged would have an all up weight of 400lb approximately and produce 180hp. All this is known - the one unknown is the gearbox. Certainly in the USA there are plenty of reduction units but the writer has no personal experience to date. A 2:1 reduction is envisaged and the cost for small batch production could be quite high. Inquiries are currently being made and a visit to USA this autumn will include looking at what exists.

Propellers too are a problem but again we would go along with multi blade. Not constant speed or variable pitch. This is a climbing machine only. A four bladed P TIP fan would certainly be quiet but some experimentation will be needed. This should not be an expensive item and there are plenty of suppliers around.

Liquid cooling does not create any problems, indeed, it gives super temperature control for our purposes and eliminates the need for throttle juggling to stop chilling the engine.

Why 180hp? This is plenty when used with the



correct airframe with a specialist airfoil. Any more would be wasteful. Of course, if someone wants to spend a fortune a Jaguar V12 could be squeezed in - but that's another story. Sorry this section took so long.

8. Environmental - this is a most serious problem. Living right under Nympsfield's "flight path" there have been many times that even I have wished for a SAM missile. Our vicar has been known to look towards heaven for other reasons than normal on a Sunday morning.

Not only propellers but exhausts and, of course, air cooling all create noise. The AV8 with four bladed P TIP plus mufflers should be almost silent from 1000ft. Exhaust emission should be very low and it will, of course, use standard 4 star fuel. As there is no other place to put it - twin strobes will be fitted. I do witness some very strange manoeuvres from gliders who suddenly see the tug.

9. Insurance has always been a mystery to me. It really should be reasonable but insurers don't always see it your way and will err on the high side. Considering the cost to purchase it should be no higher than the Robin. Again do you need one or two seats? As the pilot(s) are sitting on the C of G it makes no real odds.

10. Resale value. What would you give for a second-hand tug that you can re-engine for under £10000, will tow to 3000ft in three minutes, is easy to handle, repair, is in fact user friendly and all this for say £25/hr?

PS. If anyone out there has serious money, and intentions, we have the technology. How many tugs are there now, most of which will be replaced in the next five to ten years. That's a nice little production schedule over five years. Accepting a reasonable airframe could the BGA convince the CAA that a V8 (at less than half the price) is better than a Lycoming or Continental.

Gliderwork

C of A OVERHAULS

and REPAIRS

By L. GLOVER senior inspector



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BOB RODWELL

SYNCHRON FLYERS AT FARNBOROUGH

Aerobatic duo does it very quietly - and the wrong way up



Leader Ludwig Fuss and Benno Weiss photographed by Dave Davies.

Indirectly, GEC-Marconi, British gliding's biggest sponsor, stole the show at Farnborough this year and gave gliding an enormous boost by sponsoring the appearance, on the three public days, of the most impressive new turn to burst on the British airshow scene for years.

The Synchron Flyers are Munich University official Ludwig Fuss, 40, and 25 year-old Benno Weiss, an engineer with Scheibe, who together have developed an unpowered formation aerobatic routine in their two Lo100 gliders which was a sheer and surprising delight to thousands of sated airshow watchers whose ears have long been battered by the mega-decibel cacophony of military turbojets with reheat banging on and off.

Lasham pilot Hilary Stewart, herself well known in aerobatic circles and the owner of the only Lo100 in Britain, discovered the Synchron Flyers last year at a meeting on the continent, where they have been performing for the past four years. She persuaded Peter Hearne, GEC-Marconi assistant MD and a DG-400 driver, that they'd wow the Farnborough crowds - and she was right.

Designed by Wolf Hirth in the early 1950s, the Lo100 - of which about 30 were built - is considered by *aficionados* to be the finest aerobatic sailplane ever produced. Its diminutive 10 metre wing is built in one piece and is unstrutted and the stiff airframe has the astonishingly high VNE of 185kt. Most manoeuvres are entered at about 120kt and during their show routine the two pilots normally pull +4 and −2*g* but during competitions, flying individually, they pull up to +7 and −4. Design limits are +7 and −4½*g*.

Their routine at Farnborough began with an overhead release at 3000ft from a dual tow which started at Lasham. It contained lengthy periods of "mirror" flying with Fuss inverted and Weiss maintaining station about 3m below him with constant use of his trailing-edge airbrake to match his leader's increased rate of sink. "When it is turbulent we open up the spacing a bit, to about 10m or so" Weiss told me. "Ludwig gives the orders on the VHF and I just follow."

What the Farnborough crowds did *not* see, because of the off-field launches, is Weiss' own mastery of formation inverted flight. On a privately arranged photographic session during Farnborough week, behind a Lasham tug in the low-tow position, Weiss rolled inverted beneath Fuss and flew most of the climb to height the wrong way up.

Wingtip smoke canisters leave a delicate tracery across the sky and music by Vangelis, relayed on the PA, accompanies their superb aerial *pas de deux*. Having been fortunate to have flown as a passenger with the Red Arrows in several shows during the 1960s, in Britain and on tour round the Med, I particularly liked the climax of their routine. - a head-on roulette pass low down along the runway, followed by slow rolls after they pass each other, and then a pull-up to circuit height and a final approach in line astern, to land only yards apart. I did it with one of the Arrows' syncro pair during the Farnborough show 22 years ago and later at along Malta's Sliema Creek, and now regret the Lo100s are only single-seaters, for I'd give my right arm to do it in a glider too.

If you missed the Synchron Flyers at Farnborough this year, rest content that you'll have a chance to catch them somewhere else for the general feeling, after their Farnborough *début*, is that they'll be back, gracing other British skies again next year.

ANDY SMITH

THE VARCOM VARIOMETER

Andy Smith reviews computer variometer systems before describing the version he is planning to market in the UK next year

We glider pilots are concerned with extracting energy from the air to enable us to fly, be it local soaring, wave flights or cross-country racing. Having to do this in British weather is difficult except in exceptional summers - 1984 was the last good one, 1975 and 1976 have now passed into legend and any bar stories must be taken with a large pinch of salt.

To help us improve our flying what we need is more information about the flights that we do make - before, during and after each one. The accessibility of detailed weather-forecasts has been improved recently, but I am more interested here in the last two categories.

A common experience is to talk to a fellow pilot who has just completed a similar flight to find that you seem to have flown on different days! If the task was 200km and the difference was 20min, where did you lose that time? A close examination of barograph traces (if they were carried) will often reveal the cause - usually too many slow climbs on a cross-country task. But where were these bad climbs taken?

The time trace of a barograph cannot show where the mistakes were made. Now, if we can find out that the slow progress was two-thirds of the way down the second leg, we can recall that this was, say, passing Oxford, and we can think back to the weather conditions at that time. Developing a visual memory of soaring conditions is vital to improved performance.

A heavy sprinkling of professional pilots at the top in competitions

During the flight, the way a gliding instrument presents information to the pilot can help us not to make mistakes. Workload is something talked about in connection with instruction, but it is a factor in every aspect of flying. A look at competition results over the past few years shows a heavy sprinkling of professional pilots near the top - I think this illustrates the point. The pilots who have less of their thinking time taken up with the mechanics of flying have more of their concentration available for decision making.

Any gliding instrument that requires frequent pilot operation is of little use to the average soaring pilot. To be able to act on the information that you are climbing at an average of 2.7kt, the average for your thermal since you entered it is 3.6kt and your average for the day is 3.1kt. You should be able to see this data clearly without having to operate a knob or switch to find out.

This discussion leads to a look at computer variometer systems, which are the means of presenting this kind of detailed information. Some may think that they are far too complicated and expensive, but like it or not the microprocessor is finding its way into more and more everyday devices (cookers, washing-machines and televisions make use of them) - the trick is to make the instrument easier to use, not harder! If you are a purist and don't even have an audio on your vario, you will probably never succumb to the coming revolution. The rest of us, who have become accustomed to the beeps and burps which make it easier to keep a good look-out for other aircraft and the soaring conditions ahead, are ripe for conversion.



Andy is a free-lance satellite integration engineer currently working in France. His home club is Bristol & Gloucestershire where he flies an LS-4.

At a certain level it becomes attractive to make a microprocessor the heart of a vario or air-data system - and this level is coming down all the time. Already, if you require an accurate altitude-compensated vario and speed-to-fly plus a digital final-glide calculator, you must look at the computer vario market. But once the microprocessor is part of the system, it makes sense to write software to perform many of the tasks done previously in the analogue circuitry and, if the display is large enough, to show trend information to enable the pilot to make better decisions.

Current design approaches have been to graft enough processing power on to existing analogue varios to achieve final glide calculation and distance flown measurement. While this works, it is not the most efficient way of using the capability of modern microprocessors. To get a function such as flight statistics it is often necessary to pay quite a lot more. This additional cost is for the extra design and hardware involved in adding the capability. When the display of the instrument often cannot show what all the numbers mean, the feature is of little real value.

Another display problem is that the number shown during flight depends on the program switch position: if these positions are not perfectly understood by the pilot, a marginal final glide becomes more difficult (in other words, you go back to your John Willy calculator and wish you had spent the money on aerotows!)

Some manufacturers have married microprocessors to their existing thermistor bridge/capacity varios - altitude correction is not simple in these designs as some means of measuring altitude should be added, but don't assume that it has been. Most new designs use pressure transducers to measure both altitude (and hence vario from a simple electrical differentiation of this signal) and airspeed. Differential pressure transducers where pitot and static are applied to different sides of the same transducer are best for measuring airspeed. This eliminates the problem of drift in separate devices for pitot and static: where the signal is often only a few millivolts the drift can be larger than the signal! Such small signals mean that the instrument must have good radio-frequency shielding to prevent interference both from the glider radio and external transmitters which are overflown.

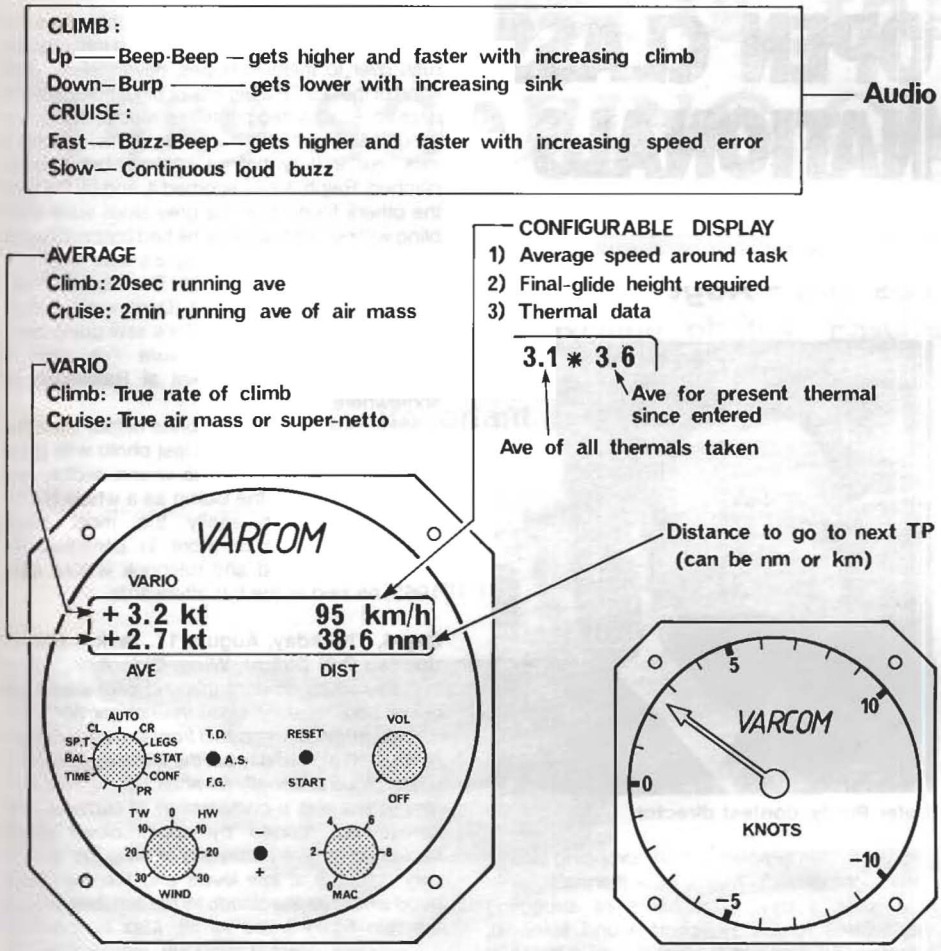
An important point in favour of pressure transducer varios is that they do not suffer from the temperature problem of capacity varios where the air inside the flask is at a higher temperature than that outside during a climb. This produces a false climb signal to which, though annoying, pilots have become accustomed.

Changing over to these more accurate systems can be somewhat confusing if there is no adequate means of damping the vario output. Most systems measure pitot, static and total energy tube pressures. It is possible to dispense with the total energy tube and make the calculation in the computer, but very good static pressure information must be available - check the static position error on your glider before fitting such a system.

It was attractive to add a processing capability to make upgrading possible

Having surveyed the current design trends and made an estimate of future requirements, it seemed to me that a system incorporating pressure transducers and an oversized computer (for growth) was indicated. Design work started in early 1987. Because the future is always uncertain, it was attractive to add processing capability to enable the instrument to be upgraded, rather than replaced after a few years. And as intelligence is always located in the computer any additional sensor connected later need not be so complicated or expensive.

Increased capacity means that statistical functions are very comprehensive and aircraft log



keeping is possible. A no-maintenance 10 year calendar-clock was incorporated to allow time and date labelling of flight statistics. The memory of the computer is also used to record the flight, producing a "digital barograph" record *via* a printer after landing. This record also includes distances, TP information and a hard copy of all the statistics from the flight. Such detailed analysis is not to everyone's taste, but there is no need to print it out!

For the display, a 32 character alpha numeric system was selected (two lines of 16 characters). Messages as well as numbers are shown to let the pilot know what the instrument is doing, both during the flight and after, when presenting statistics. With 32 characters there is room to display units (*eg* ft for feet) as well as numbers and less need to share displays. With enough space for units, it means that the display is effectively customised by the software held in the computer memory. All that is required when a new function is added is a different PROM chip to write new information to the display screen.

On the audio side, different tones for cruise and climb are used to let the pilot know what mode the instrument is in without having to look at the display. On flapped machines where a remote switch can be used to transfer from cruise to climb, this is not so important. But unflapped gliders require the pilot to switch manually otherwise the computer will not measure the distance flown along the track accurately.

To make the system really useful in a standard glider it was not sufficient to rely on the pilot to remember to do the switching, nor was it good enough to measure the airspeed and compare it with some pilot-selected threshold to do it automatically: as conditions change, thermalling speeds alter, and when the pilot dolphins the instrument thinks it is climbing. It was possible to write software that takes account of changing flight conditions, including dumping water-ballast, to overcome this problem.

By using flight test data and curve-fitting techniques in the computer, it was possible to model the performance of different gliders accurately. A library of polars is stored to enable the pilot to change aircraft without reprogramming. It also means that when tips are fitted to variable span machines, a completely different polar can be called up – this is a far more accurate method than modifying the original polar.

In final glide mode it was possible to take account of the headwind (entered by the pilot) and demand the correct higher speed to fly to maximise the distance flown – when flying home into a 20kt wind this can make all the difference!

Additional interfaces are incorporated to allow later connection of additional equipment, *eg* a magnetometer will provide information to enable the instrument to output heading as well as distance to the next TP. (Currently, computer varios assume that you are heading along track when gliding.) The position accuracy of the instrument will be greatly enhanced in this way, as will the estimate of the wind speed and direction. These are measured as a known point is overflown (maybe the first TP) and compared with the pilot estimates entered before starting the flight – marginal final glides can be a little less fraught if the wind speed and direction is known rather than estimated.

Flight statistics for up to six flights can be stored in the non-volatile (*ie* not lost when the power is turned off) memory for each flight:

DATE OF FLIGHT
TAKE-OFF TIME
LANDING TIME
AVERAGE SPEED
PERCENTAGE OF TIME SPENT THERMALLING
AVERAGE CLIMB RATE
START TIME
FINISH TIME
START HEIGHT.

Then for each leg:

AVERAGE SPEED FOR LEG
PERCENTAGE OF TIME SPENT THERMALLING
AVERAGE CLIMB RATE
START TIME OF LEG
FINISH TIME OF LEG
START HEIGHT OF LEG.

There is no need to press a switch after completing a task or outlanding. The computer continuously monitors airspeed and stores the correct distance flown along the last leg – even if it was a field landing.

Prototypes of the VARCOM, an instrument incorporating these features, have been flying since early 1988. VARCOM has two primary display modes for cruise and climb: switching between the two is either automatic, manual or *via* a flap-actuated micro-switch.

The top right-hand display position, which normally shows average speed for the whole flight, can be changed to show either final glide height required or thermal information (as described earlier). This change is done by using a separate dedicated switch to prevent confusion in flight. An analogue vario display is employed to present the vario information in the usual form but it is not essential to the operation of the system if panel space is limited – one 80mm cut-out is all that is required.

The first competitive test for the system was in the 1988 Standard Nationals where we finished second. After further flight testing in France and Australia, the VARCOM will be marketed in the UK in 1989.

WINCHING WIRE

- Available in stranded cable 4mm, 4.5mm and 5mm diameter
- High tensile galvanised steel
- Special coated wire for use on runway
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OPEN CLASS NATIONALS

Lasham - August 6-14

The chief purpose of the speeches by visiting dignitaries at the opening ceremonies - and indeed the daily prizegivings - seemed to be to bury Derek Piggott with praise for his amazing life and works in aviation. I was much relieved to see him later on, albeit in heavy incognito (see photo), still breathing, since the eulogies reminded everyone including Derek of nothing so much as a memorial service. With luck an interview with Derek about his amazing life etc will appear in a future issue of *S&G* - much more fun than a Comps report, both for you and for me, I promise. But now to my story of the 1988 contest of mighty wings, in which the most reliable parts are the daily weather summaries (bearing a striking resemblance to his actual forecasts) from Tom Bradbury . . .

Day 1, Saturday, August 6. Task - 234km O/R Gaydon.

There was a narrow belt of high pressure over the area with a very solid inversion at 2000ft which eventually lifted to 3500 over high ground, but only after many hours of sunshine. Over the Thames valley and towards Cirencester the inversion never rose above 2500, partly because early morning fog had been slower to clear there. Max temperature 27°C. Dew point 30°, 5000ft temperature 14°. Wind light and variable. Blue thermals.

". . . it was a matter of marginal final glides under a dead sky."

It looked moderately straightforward in any big glider, which is to say that one constantly got down to 600ft or so, until the very end. Then suddenly, for those who made it to the Didcot power station chimney - or the cooling towers, if arriving at Didcot beneath chimney height - it was a matter of marginal final glides under a dead sky. Hats off, therefore, to Mick Boydon (Ventus CT), who crept in 7th out of eight finishers.Tom Docherty (Nimbus 3) and Mike Bird (ASW-22), who fell just a few km short, would like to know how he did it.

David Innes (Nimbus 3T) took the day in his relaxed style; Pam Hawkins made us think a second woman Open Class Champion since Anne Burns in 1966 was on the cards; John Bally (Nimbus 3) was awarded a brand new pair of underpants by the director for his almost totally final glide; Robin May, with Malcolm Bolton as P2 in the ASH-25, slipped in over the trees for 4th place.

Day 2, Sunday, August 7. Task - 281km O/R Husbands Bosworth.

The high had moved to the North Sea and the inversion was less marked; it reached 3500ft at midday and broke locally to allow isolated fragments of cu to form. However, a spread of unexpectedly thick cirrus from the SW spoilt conditions later. Visibility was exceptionally good over the routes but a belt of dense haze lay just south of Lasham during the afternoon. Max temperature 29°C. Dew point 15° falling to 9° in places, 5000ft temperature 14° dropping slowly. Wind light easterly. Mainly blue thermals.



Peter Purdy, contest director.

A strange day. After hours of struggling northwards to the TP, pilots found splendid, unexpected climbs to over 6000ft asl in the Husbands Bosworth area around 5pm. This gave many of them mistaken hopes that they would get home after all. It was not a good day to get degaggled: vast tracts of air, even in the sunshine, yielded no lift to the hapless isolated glider. Ralph Jones (Nimbus 3) struck off alone, and fell down 25km short, never to get back properly into the Comp, in spite of his win the next day.

David Innes won again; Robin May followed, this time with John Bailey as P2; Pam Hawkins took a 3rd place which kept her in second spot overall, in the immaculate Nimbus of the Dutch Champion.

Day 3, Tuesday, August 9. Task - 296km quadrilateral Welford, Kettering, Goring.

Today saw the fastest speed of the whole Comp: 91km/h. This indicates what a slow Comp it was overall; gliders of this class, flown by pilots of the Jones class, have done 110km/h and more in previous Open Nationals.

A cold front cleared before breakfast and a weak ridge developed over southern England. There was just enough depth of convection for shallow cu to form. Then (yet again) another unpredicted belt of dense cirrus developed and spread from the WSW to spoil thermals over an area south of a line from the Severn to the Wash. Max temperature 22°C. Dew point 10°, 5000ft temperature 8°. Wind 290/13 becoming 250/08.

It is probably a good thing, but there is no doubt farmers are ensuring that stubble fires are not what they used to be. We of long memory still rush over to them in hopes, nevertheless. Just short of the last TP a big fire, or big smoke without useful fire, attracted pilots like moths; dozens of wings stuck out of the whirling mass, making it look like a dirty ball of knitting, but nobody climbed. Ralph Jones scorned it, and by the time the others found that the grey skies were bubbling without artificial aids, he had breezed home. Satisfying revenge after Day 2's field landing - except in points, of course. *The Scorer Chastiseth Him that Hits the Sod.* (Don't worry, Editor, it's an old country glider pilot's saw going back hundreds of years. I'm sure I've seen it embroidered in needlepoint at Rattlesden or somewhere.)

Mike Bird made an elaborate detour from this smoke in order to take his last photo with great care from diametrically the wrong sector, and blew 500pts: over the Comp as a whole his TP photography was easily the most inept, accumulating 700 or more in penalties. He doesn't understand any rulebook written after 1963, he said in the bar afterwards.

Day 4, Thursday, August 11. Task - 192km dog leg O/R Didcot, Wing, Didcot.

A day when no right thinking pilot would get out of bed, let alone open the hangar doors.

A flat ridge between two frontal systems might have given a good day but the westerly jet spread upper cloud unusually far ahead of the next system. There was a combination of cumulus with spread out topped by upper cloud which thickened to give outbreaks of rain. The air was very unstable at low levels and thermals were good wherever the clouds let the sun through, but the rain finally killed all lift. Max temperature 18°C. Dew point 8°, 5000ft temperature 3°. Wind 260/22.

"For clumsy cameramen the opportunities for getting TP sectors muddled were superb."

The ingenious double dog-leg with optional TPs offered, I calculated, eight possible tasks, and with the fallback task the truly conscientious (*ie* mad) pilot could have tracks representing 16 tasks on both maps, 250 000 and 500 000, or 32 tasks in all. For clumsy cameramen the opportunities for getting one's TP sectors muddled were superb, forget about the flying. "This is a photography competition, don't you realise?" said Peter Purdy, contest director, who has a sense of fun guaranteed to set a pilot's teeth on edge.

I don't remember the sun putting in an appearance, but the thickness of the stratus varied sufficiently to permit the odd one-knot thermal. A Big Wings day for sure. It was a matter of limping from one washed out rag of cloud to another, till rain over the last half of the last leg ended it all. John Bally made Reading, Mike Bird landed at RAF Benson, where he was instantly ➡

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The cloudscapes are of the cold front that came through too late on the evening of the last day.

put under arrest (with TV and cups of tea) because of recent IRA attacks on the Services, and Robin May got to Chinnor, having averaged 0.5kt climb all day with a stoical passenger in the back seat.

Day 5, Friday, August 12. Task - 217km quadrilateral Membury, Headington, Beckhampton.

A Big Wings day again. A dog's head task rather than a dog leg task; the sharp nose of the dog's head being Oxford, and Lasham representing the tip of the lower jaw. To rephrase Lady Bracknell (Bracknell? So the sarcastic old bat was a weather forecaster - I should have guessed) "To have one upwind TP in a 30-knotter may be regarded as a misfortune; to have *two* seems very much like carelessness!" However it was all dictated by airspace and entirely justified. We members of the task setters union - not yet expelled from the TUC because they haven't noticed we are there - must stick together.

A classic cold front swept through Lasham before 10 o'clock followed by rapid development of rather flat cumulus under an inversion at 5000ft. There was some streeting and the waves above were soarable to 10 000ft by motor gliders (but not competitors). The waves interfered with thermals which were very strong at times but broken and distorted low down. Large areas of spread out in the north of the area ruined a potentially good day, and the very strong wind added to the problems. Max temperature 19°C. Dew point 8°. 5000ft temperature 3°. Wind 300/35 decreasing to 28kt in evening. (Winds were even stronger over northern England where the speed was 50kt at midday.)

Mike Bird (4th for the day) doesn't quite agree with Tom Bradbury's description of the thermals: late in the afternoon, between 5pm and 7pm, he got down to 250ft (above lovely cut fields, says he to reassure Lloyds) twice, and down to 300ft twice, and every time got away in big smooth thermals with lift all the way round, while bowling downwind, away from the last TP, at a depressing speed. How that reconciles with what strong wind normally does to lift low down we don't know.

John Bally made an astonishing downwind detour back to Reading simply to survive on the third, into wind, leg; then fought his way up to the last TP, after which it was a free (though hard earned) ride home with a stiff breeze at his back, to win the day.

On this critical day, lying just one point behind Innes, Robin May decided to fly the ASH solo for the first time. As it happened, waterballast was jettisoned by pretty well everyone in the difficult patches, and the decision was right.

Photographs by Platypus

Summing up

As they say of wine, Not a great Nationals, but a good Nationals: five contest days in 1988 was pretty fair going.

Only three pilots finished all four completed tasks (nobody finished Day 4) and they were the top three at the end, with a 200pt gap between 3rd and 4th place. That seems to reinforce the



"Laid back" best describes the David Innes (2nd, Nimbus 3) approach. His tactic on the first two days, both of which he won, was to fill up with water and toddle along at a few knots over max glide speed, thereby avoiding the tedious necessity of circling. The one-point difference between his final score and Robin May's represents only a few wingspans of these monster gliders. David frequently represents Guernsey in the World Open Class Championships, one of the lesser known advantages of residing in the Channel Islands.

Below: Pam Hawkins (4th, Nimbus 3) is a vetinary surgeon, who a month earlier in France instantly diagnosed that a Platypodian blood vessel had been severed when my crew managed, with an unexpectedly hefty shove, to wedge my left hand between the inner and outer wing panels of the above mentioned ASH-25. There was no charge, but I gave her an "I love big wings" T-shirt which, sadly, she was not wearing on the chilly last day when this photo was taken.



Below: Ralph Jones (6th, Nimbus 3) dislikes gaggles. Having baled out after a mid-air collision years ago he has good reason to shun the crowd. The result of that independent style is that he can either do better than everyone else or, very rarely, come unglued. There was more of the latter this year than the former, but Ralph has been National Champion more times than any of us can remember, and there's always next year.



Below: Derek Piggott, fresh from Buckingham Palace, in disguise, trying to dodge autograph hunters and hero worshippers. This is in fact his make-up for a film shot partly in Turkey, where he had some very exciting (understatement) flying in an Optica.





rule that in a British Comp you will end up very high in the rankings if you always manage to be among the finishers, no matter how slow you are. Unfortunately, however, the corollary of that is not that it always pays to be cautious: flying fast and taking risks is often a precondition of finishing the course at all. Knowing when to change gear from *softly, softly* to *Tally Ho!* is just what we coarse pilots get wrong.

Robin May's computer shows that he averaged a miserable 1.38kt rate of climb over the five days. (Incidentally, if you are one of those who fly around at weekends boasting on the radio that you're getting six-knotters, you are merely telling the world that you don't have an averager; it's a horribly sobering instrument. The *cool* thing to do is to moan that you are only getting 0.9kt, but at the end of the day cover some Purnellishly mind-boggling distance. That really winds them up . . .)



Robin May (1st, ASH-25) flew two-up every day except the last. This meant that his range of available wingloadings for varying conditions was generally less than that enjoyed by the Nimbuses. When the lift gets feeble a second pilot is, to put it unkindly, a lump of non-dumpable ballast, even if he is Einstein. (Robin is my partner, by the way, and the best organised pilot I have ever met; I am the worst organised pilot I have ever met, which goes to show there are some very odd syndicates around.)

Thanks to the other Nationals

The other nationals who did us proud this year were the national daily papers, with excellent pictures printed on their new high-tech machinery and some fairly detailed reporting of a sport that is not merely a minority interest but is incomprehensible to the public at large. (Come to think of it, it's incomprehensible to me.) Thank you, Fleet Stree - er Wapp - er, wherever you are!

Handicap the Open Class?

Because there are so few really big gliders in the UK the Open Class Nationals becomes a battle between a small number of big 'uns, while the minnows come along for the fun of participating in a Comp which they have no earthly chance of winning, however inspired the pilots may be. I flew an ASW-20L in the Open in 1983 and 1984 and enjoyed it thoroughly, battling it out for 16th place with the other little gliders. But the weather was good those years. On both those occasions I pleaded with the scorers that they should ask the computer to churn out a subsidiary table of unofficial results that were handicapped, just to add a bit of spice for the small fry; this would not have been a difficult operation, but the modest proposal met with what one of our late, great politicians would call a total ignoral. Perhaps I should have put the idea up weeks beforehand, not after the Nationals had started. (Between you and me, scorers are a strange, slightly masochistic, tribe of nocturnal creatures; there are just two things they can't abide: daylight and pilots.)

This year the idea of *officially* handicapping the whole Open Class Nationals was mooted in a debate towards the end of the week, but it was generally agreed this was going too far. Improving the breed is one of the reasons for having an absolutely unrestricted Class. If someone can make a 30 metre glider with an L/D of 70-plus, let's not shackle them. These improvements often filter down to smaller Classes after a while, so everybody benefits. But there is every reason now to hope that in future the organisers of the Open Class Nationals will give daily prizes and a pot for the best performers on a handicapped basis.

Below: Mick Boydon (7th, Ventus CT) collected more silverware per metre than anyone when he took both the 19 and 21 metre pots with a 17m glider. If one were to apply a rough and ready handicap correction he would probably jump a good four or more places (see note on the handicap debate).



I remember some years ago visiting John Glossop (5th, Nimbus 3), photographed below, in Stoke Mandeville hospital after he had nearly electrocuted himself by flying into a power line during a Nationals. As the task setter I felt personally responsible for his burns, which proves that no one with a tender conscience should ever set tasks. Anyway the scarring experience did not put him off, as you can see.



Below: John Bally (3rd, Nimbus 3) has rear view mirrors on his instrument panel so he can see who is creeping up under his armpit (or any other blind spot) in a thermal. They also help him to see whether anyone is following him in the glide. This is something he absolutely hates; he will do anything to lose the blighters, including flying into the ground. Talking about flying into the ground, his arrival on the first day made it clear why the tip extensions on a 25.5m Nimbus 3 are upturned: it enables people like J. Bally (*ie* very few) to fly with one wingtip 10cm off the grass without mishap, apart from seizures amongst those whose gliders are parked in the vicinity.



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FINAL RESULTS
Open Class

Pos	Pilot	Glider	Day 1.6.8 234km O/R Gaydon			Day 2.7.8 281.3km O/R Husbands Bosworth			Day 3.9.8 296.1km ■ Welford, Kettering, Goring			Day 4.11.8 192.3km ■ att TP Headington/Didcot, Winslow/Wing, Headington/Didcot			Day 5.12.8 217.1km ■ Membury, Headington, Beckhampton			Total Points
			Dist (Speed)	Pos	Pts	Dist (Speed)	Pos	Pts	Speed (Dist)	Pos	Pts	Dist	Pos	Pts	Dist (Speed)	Pos	Pts	
1	May, R. C.	ASH-25	(61.0)	4	959	(74.6)	2	993	84.2	3	936	123.9	4	203	(39.3)	2	316	3407
2	Innes, D. S.	Nimbus 3T	(67.7)	1	1000	(76.3)	1	1000	84.7	2	940	97.8	8	152	(37.7)	3	314	3406
3	Bally, J. D.	Nimbus 3	(64.1)	3	978	(64.6)	6	904	70.0	10	803	156.4	1	267	(44.7)	1	322	3274
4	Hawkins, Pam	Nimbus 3	(66.1)	2	990	(70.5)	3	977	80.3	4	900	55.5	12	69	111.3	6	138	3074
5	Glossop, J. D. J.	Nimbus 3	(56.9)	6	934	(68.2)	5	918	70.1	9	804	98.7	7	154	108.1	=12	117	2927
6	Jones, R.	Nimbus 3	(59.1)	5	947	256.0	8	768	91.1	1	1000	23.8	20	7	94.7	=16	113	2835
7	Boydon, M. V.	Ventus CT	(56.8)	7	933	227.1	12	674	73.6	5	837	132.9	3	221	112.2	5	139	2804
8	Docherty, T. P.	Nimbus 3	228.7	9	773	(62.4)	4	945	70.3	8	806	34.9	16	29	99.4	=9	120	2673
9	Webb, M. J.	Janus CE	(55.2)	8	923	239.6	10	714	66.9	13	774	3.8	=21	0	97.9	=12	117	2528
10	Brown, H. F.	Kestrel 19	219.5	11	739	211.1	23	622	68.0	11	784	96.3	9	149	102.2	=7	124	2418
11	Lincoln, A. K.	Ventus	176.8	=17	581	252.1	9	755	67.6	12	780	112.0	5	180	58.9	22	59	2355
12	Findon, D. E.	Nimbus 2C	227.8	12	720	215.8	18	637	66.2	14	768	38.7	=14	37	97.9	=12	117	2279
13	Pozerskis, P.	ASW-22	185.0	15	611	256.4	14	669	71.5	17	717	65.5	11	89	39.4	28	29	2115
14	Bird, M.	ASW-22	223.3	10	753	200.2	28	486	(258.6)	29	447	138.0	2	231	154.8	4	171	2088
15	Davies, F. J.	Kestrel 19	133.9	23	422	226.0	13	670	71.5	6	817	3.8	=21	0	99.6	=9	120	2029
16	Taylor, J. R.	ASW-20FL	175.7	19	577	256.7	7	770	(288.9)	20	560	3.8	21	0	99.8	=9	120	2027
17	Gardiner, D.	Kestrel 19	176.8	=17	581	224.1	15	664	(264.7)	22	510	43.8	13	47	92.6	=18	109	1911
18	Corbett, G.	ASW-20L	178.3	16	587	211.6	=21	623	(287.0)	21	556	26.8	19	13	118.1	15	116	1895
19	Logan, M. W. B.	Ventus	208.2	14	647	219.6	16	649	(260.7)	23	501	3.8	=21	0	97.9	20	97	1894
20	Szulc, B.	Ventus	139.5	21	443	214.1	20	631	64.5	15	752	33.4	=17	26	38.9	29	28	1880
21	Spencer, J. D.	ASW-20BL	147.1	20	471	219.3	17	648	(258.8)	=24	497	114.4	6	172	66.8	21	71	1859
=22	Metcalfe, G. C.	ASW-20FL	124.8	28	388	211.6	=21	623	(290.8)	=18	564	92.2	10	141	102.3	=7	124	1840
=22	Norrie, A. J.	ASW-17	130.9	24	411	211.6	25	573	70.4	7	807	18.5	=21	0	52.6	=24	49	1840
24	Moulang, A. P.	ASW-20L	138.1	22	438	228.3	11	678	(290.9)	=18	564	11.9	=21	0	94.7	=16	113	1793
25	Rollings, C. C.	Janus	202.1	13	675	102.5	30	268	61.7	16	726	3.8	=21	0	92.6	=18	109	1778
26	Lyttleton, C. C.	ASW-20BL	129.8	=25	407	214.8	19	634	(258.6)	=24	497	33.4	=17	26	DNF	30	0	1564
27	Ellis, J.	DG-400	132.0	27	395	200.2	24	586	(255.5)	26	490	18.4	=21	0	52.6	=24	49	1520
28	Reading, P. T.	Janus	136.3	29	381	186.5	27	542	(247.8)	27	474	38.7	=14	37	53.6	23	51	1485
29	Bell, J. G.	Kestrel 19	129.8	=25	407	142.1	29	397	(264.7)	28	460	3.8	=21	0	46.1	26	39	1303
30	Tull, V. F. G.	Kestrel 19	0	30	0	192.9	26	562	(219.8)	30	416	13.9	=21	0	53.3	27	34	1012

DNF=did not fly

We are grateful to Specialist Systems Ltd for the results of the Nationals and to them and Deewood Computer Services Ltd for the majority of the Regionals' results.

REGIONALS' RESULTS

HUSBANDS BOSWORTH REGIONALS – Coventry GC, May 28-June 5

Pos	Pilot	H'cap	Sailplane	Day 1.26.5 180.3km ▲	Day 2.29.5 137.6km O/R,	Day 3.30.5 128.7km ▲	Day 4.1.6. 181.2km ■	Total Points
1	Jordy, M. J.	111	ASW-20L	*840	228	224	950	2242
2	Cooper, B. L.	96	Sport Vega	1000	289	105	849	2223
3	Hood, L.	106	Janus C	834	210	158	1000	2202
4	Dobson, J. B.	103	LS-4	874	0	317	975	2166
5	Murphy, T.	108	ASW-20	714	229	273	897	2113
6	Bromwich, R. C.	103	LS-4A	892	165	36	895	1988
7	Strathern, M.	90	K-6E	895	271	75	493	1734
8	Meagher, Mary	101	Pegase 101	869	85	23	662	1639
9	Copeland, D. D.	98	Std Cirrus	772	25	26	756	1579
10	Wright, O. T.	112	Kestral	587	*0	0	875	1462
11	Ellis, J.	108	DG-400	733	65	75	566	1439
12	Jefferyes, M. B.	98	Silene	826	237	166	188	1417
13	Nash, Jane	106	PIK 20D	611	71	38	678	1396
14	Davies, F.	92	Puchacz	764	205	55	304	1328
15	Cousins, R.	106	ASW-20L	801	137	0	317	1255
16	Spiller, R. W.	101	LS-4	699	176	16	263	1154
17	Kangurs, A.	100	ASW-19	707	0	0	432	1139
18	Wright, R. H.	108	Mini Nimbus	701	44	31	278	1054
19	Gardner, T. R.	106	Mosquito B	474	127	42	387	1030
20	Meads, P.	112	Kestrel	20	0	DNF	937	957
21	Cheetham, R. A.	106	Mosquito B	603	71	19	0	693
22	Kirschner, P. M.	108	Vega	473	0	0	44	517
23	Davidson, R.	90	SSB-5B	28	0	*33	418	479

DUNSTABLE REGIONALS – London GC, July 16-31

Pos.	Pilot	Sailplane	Day 1.26.7 250km ■	Day 2.27.7 146km bow tie	Day 3.29.7 203km double ▲	Total Points
1	Cardiff, J. P. +P1	K-21	358	744	467	1569
2	Macpherson, D. J.	ASW-20L	422	701	247	1370
3	Kay, W. M. Richer, P.	ASW-24	571	726	0	1297
4	Jones, R.	Nimbus 3	234	794	248	1276
5	Baker, R.	ASW-20	294	660	154	1108
6	Jeffries, J. J. +P1	ASH-25	13	792	202	1007
=7	Kingerlee, J.	Discus	0	711	280	991
=7	Lynn, S. G.	ASW-20L	267	486	238	991
9	Jelden, A.	Std Cirrus	207	615	161	983
10	Jones, S.	Discus	358	205	303	866
11	Downham, E.	Std Libelle	30	784	0	814
12	Stringer, M.	Kestrel 19	23	526	125	674
13	Parsons, R.	ASW-20L	47	477	70	594
14	Richardson, D.	Pegasus	123	327	0	450
15	Austin, T.	K-23	78	262	86	426
16	Craig, G.	Std Cirrus	92	295	14	401
17	Bonner, B.	ASW-20	65	173	0	238
18	Evans, A.	Pegasus	0	104	0	104
19	Ellis, C. A. P.	Dart 17	96	0	0	96
20	Waterhouse, P.	K-18	70	0	0	70
21	Russell, M.	ASW-20L	0	0	0	0

INTER-SERVICES REGIONALS, Bicester – August 2-11
Sport Class

Pos	Pilot	Sailplane H'cap	Day 1.3.8 319.5km ■	Day 2.7.8 202.5km ▲	Day 3.9.8 324km 5 legs	Total Points
1	Smart, A. M. B.	104 Discuss	874	779	908	2561
2	Millson, A. J.	104 Discus	663	1000	807	2470
3	Williams, P. R.	97 Astir CS	694	*792	884	2370
4	Moules, K. A.	103 LS-4	649	*921	773	2343
5	Stratten, P. J.	104 Janus B	662	779	807	2248
6	Ellwood-Wade, R. D.	103 Pegasus	672	789	767	2228
7	Brownlow, S. M.	97 Astir 77	421	849	884	2154
8	Hodge, B. J.	97 Astir 77	173	846	1000	2019
9	Woodman, P. J.	97 Astir CS	274	812	831	1917
10	Wright, J. G.	97 Std Libelle	271	812	826	1909
11	Hughes, M. I.	102 Discus	681	327	828	1836
12	Smith, I.	104 Discus	240	747	807	1794
13	Hardy, M. F.	100 SHK	628	416	745	1789
14	Davis, C. M.	99 Astir CS	149	847	782	1778
15	Richardson, J. L.	99 Astir CS	592	381	757	1730
16	Atkinson, K. R.	103 DG-300	389	290	928	1607
17	Napier, S. M.	97 Astir 77	337	432	789	1558
18	Gildea, C. J.	100 SHK 1	301	943	243	1487
19	Boik, M. C.	103 LS-4	*592	823	61	1476
20	Matyear, A. D.	97 Astir 77	264	347	832	1443
21	Eagles, T. W.	100 Cirrus	246	207	849	1302
22	Jury, J. G.	97 Astir 77	282	184	776	1242
23	Evans, R. M.	97 Astir CS	264	718	224	1206
24	Dean, M. J.	98 DG-100	119	228	746	1093
25	Campbell, D. M.	98 Cirrus	*139	309	644	1092
26	Matthews, G.	97 Astir 77	138	445	494	1077
27	Batchelor, A. M.	97 Astir CS	155	190	650	995
28	Stenton, A. D.	97 Astir CS	0	85	832	917
29	Darnbrook, E. J.	97 Astir	251	385	128	764

Club Class

Pos	Pilot	Sailplane H'cap	Day 1.3.8 233.4km 6 legs	Day 2.7.8 117.3km ▲	Day 3.9.8 210.3km ■	Total Points
1	Sanders, N. J. C.	96 Sport Vega	601	773	933	2307
2	Somerville, A. P2s Browning, G./ Hemsley, P.	95 K-21	*571	*739	784	2094
3	Andrews, P. W.	76 K-13	*742	577	604	1923
4	Gaunt, T. R. F. P2s Preston, R./ Jarvis, G.	95 K-21	610	462	755	1827
5	Findlay, D. C.	90 K-6E	668	544	483	1695
6	Barnett, A. J.	94 K-23	231	*697	730	1658
7	Malam, R. N.	94 K-23	*333	792	424	1549
8	Mitchell, J. S.	86 K-18	214	537	0	751
9	Tribe, A. D.	86 K-18	125	349	73	547
10	Davis, E. R.	94 Club Libelle	527	DNF	DNF	527
11	Buckner, G. G.	94 Twin Astir 2	187	98	0	285

REGIONALS' RESULTS

NORTHERN REGIONALS - Sutton Bank, July 30-August 7

Open Class

Pos	Pilot	Sailplane H'cap	Day 1.31.7 232km▲	Day 2.1.8 303km▲	Day 3.2.8 143km▲	Day 4.4.8 150km▲	Day 5.5.8 147km ■	Day 6.6.8 187km ■	Total Points
1	Bond, M.	112 Jantar 1	784	309	376	468	0	235	2172
2	Knight, R.	108 ASW-20	583	455	456	272	78	206	2050
3	Payne, R. D.	101 LS-4	493	456	375	202	0	91	1617
4	Nash, S. R.	104 PIK 20D	547	463	260	152	0	19	1441
5	Rees, J.	112 Discus-202/17	-	319	-	212	-	15	
	Dale, G.		491	-	311	-	0	-	1348
6	Fox, B.	114 Ventus B	232	378	375	0	0	230	1215
7	St Pierre, A. H. G.	106 DG-200	631	0	294	238	7	8	1178
8	Collingham, C.	106 ASW-20	396	376	294	96	0	0	1162
9	Smith, M.	101 LS-4	631	470	0	0	0	0	1101
10	Rice, J. W.	112 Kestrel 19	158	344	273	127	0	0	902
11	Young, M.	101 LS-4	242	-	404	-	0	-	
	Griffiths, P.		-	0	-	244	-	0	890
12	Green, G.	111 ASW-20L	374	-	0	-	0	-	
	Hutchins, P.		-	349	-	52	-	106	881
13	Ramsden, P.	112 Kestrel 19	162	344	311	0	0	0	817
14	Riddell, J. C.	116 Nimbus 2	353	0	242	0	0	54	649
15	Mortimer, R.	112 Kestrel 19	103	-	376	-	44	-	
	Ashworth, N.		-	0	-	0	-	10	533
16	Beardsley, G. C.	101 LS-4	120	-	153	-	0	-	
	Davis, K.		-	0	-	230	-	5	508
17	Tanner, L. E. N.	108 Vega	244	0	0	67	0	0	311

Sport Class

Pos	Pilot	Sailplane H'cap	Day 1.31.7 179km▲	Day 2.1.8 212km▲	Day 3.2.8 127km▲	Day 4.4.8 111km▲	Day 5.5.8 100km O/R	Day 6.6.8 153km▲	Total Points
1	Strattern, M.	90 K-6E	666	751	323	352	73	131	2296
2	Brook, M.	100 SHK	381	895	370	0	133	118	1897
3	Robson, D.	99 Std Jantar	287	814	285	155	19	40	1600
4	Stott, B.	90 K-6E	214	123	423	273	11	400	1444
5	Griffin, B.	78 Skylark 2	336	486	427	168	0	24	1441
6	Taylor, C.	98 ASW-15	18	933	288	0	9	0	1248
7	Turner, P.	82 Pirat	300	435	384	0	0	59	1178
8	Slater, S.	94 Dart 17R	-	746	-	90	-	0	
	Innes, M.		0	-	114	-	0	-	950
9	Fairman, M.	100 ASW-19B	-	0	-	533	-	-	
	Marlow, T.		167	-	102	-	0	7	809
10	Chadwick, A.	88 Dart 15	57	0	0	0	0	0	57

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DNF = did not fly
* = penalty

INTER-SERVICES REGIONALS - Roanne, France, July 21-29

Open Class

Pos	Pilot	Sailplane H'cap	Day 1.21.7 128.3km▲	Day 2.22.7 194.1km▲	Day 3.24.7 102.9km▲	Day 4.25.7 167.3km▲	Day 5.27.7 116.2km▲	Day 6.28.7 214.8km▲	Total Points
1	Odell, J. H.	108 Vega 17L	810	954	458	498	617	168	3505
2	Batty, C. J.	106 ASW-20	905	966	496	416	653	0	3436
3	Hearnes, C. V. J.	106 ASW-20	984	932	389	230	673	147	3355
4	Stewart, D. R.	114 Ventus B	892	820	447	424	737	0	3320
5	Cunningham, G. W.	104 Discus	870	1000	485	295	664	0	3314
† 6	Malpas, W. E.	112 Ventus	788	956	208	344	680	0	2976
7	Gaunt, T. R.	114 Kestrel	831	902	0	429	480	121	2763
8	Foreman, M. C.	118 Nimbus 2	841	863	55	329	669	0	2757
9	Richards, E. W.	115 Ventus BT	864	882	511	462	0	0	2719
10	Mitchell, T. M.	100 ASW-19B	801	982	219	0	646	0	2648
11	Feakes, R.	126 ASH-25E	759	820	492	0	508	0	2579
12	Cuming, M. F.	108 Vega 17L	242	930	0	468	551	205	2396
13	Arnall, R.	108 ASW-20	301	947	372	459	23	0	2102
14	Macfadyen, T. E.	106 ASW-20	320	929	227	0	558	0	2034
15	Barley, P. R.	104 Discus	901	146	0	377	399	0	1823
16	Dobson, J. B.	103 LS-4	843	185	470	0	0	0	1498
17	Hymers, S.	114 Ventus	918	474	0	0	0	0	1392
18	Mulholland, S.	108 Mini Nimbus	0	460	0	331	540	0	1331
19	Sherlock, C. C.	104 Discus	143	806	111	0	245	0	1305
20	Watson, B. B. C.	118 Nimbus 2a	199	851	252	0	0	0	1302
121	de Jong, M. B.	100 DG-100	255	175	288	0	566	0	1284
22	Conyers, P. B.	101 DG-300	0	372	245	0	559	0	1176
23	Lee, M. E.	103 LS-4	863	185	31	0	0	0	1076
24	Bally, J. D.	131 Nimbus 3	850	146	0	0	0	0	1006
25	Watson, A. J.	103 DG-300	0	185	0	0	672	0	857
26	Costin, M. C.	108 DG-400	363	285	0	0	0	0	648
27	Saundby, R. P.	108 Janus	0	93	0	0	427		520

† *Dutch national*; ‡ = British National resident in France.

LASHAM REGIONALS - August 6-14

Class A

Pos	Pilot	Sailplane H'cap	Day 1.6.8 176.7km O/R	Day 2.7.8 198.2km O/R	Day 3.9.8 194.2km ■	Day 4.12.8 141.8km O/R	Total Points
1	Jeffery, P.	103 Pegasus	360	1000	834	701	2895
2	Sheard, P. G.	112 Ventus	319	699	-	463	
	Shawdon, C.		-	-	1000	-	2481
3	Warren, J.	111 ASW20L	*396	862	-	288	
	Morris, B.		-	-	904	-	2450
4	Galloway, J. P.	118 Nimbus 2c	295	859	923	304	2381
5	Watson, A. J.	106 Mosquito	346	779	847	338	2310
6	Lovell, C. D.	106 Mosquito	346	728	838	383	2295
7	Bryant, C. J. H.	112 Ventus	413	785	791	294	2283
8	Sampson, D. L. H.	112 DG-202/17C	319	711	667	348	2045
9	Jones, S. G.	104 Discus B	227	919	617	157	1920
10	Croote, P. F. J.	112 Kestrel 19	319	435	429	575	1758
11	Cousins, R.	106 ASW-20	346	439	462	396	1643
12	Day, M. I.	103 LS-4	328	414	531	342	1615
13	Hoolahan, J. B.	111 ASW-20L	323	397	497	356	1573
14	Murray, W. J.	108 Mosquito B	336	871	248	0	1455
15	Johnson, G.	104 Janus CM	355	308	557	203	
	Gorley, T.						1423
16	Harwood, H. K.	103 Pegasus	360	0	452	*416	1228
17	Aitken, P. M.	106 LS-3	37	807	360	0	1204

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Class B

Pos	Pilot	Sailplane H'cap	Day 1.6.8 176.7km O/R	Day 2.7.8 129.5km O/R	Day 3.9.8 181.3km▲	Day 4.12.8 102.1km▲	Total Points
1	Alldis, C. J.	101 LS-4	371	861	864	874	2970
2	Dall, R. N.	102 Discus	366	743	1000	*774	2883
3	Bradney, F. G.	102 Discus B	366	717	920	852	2855
4	Kay, W. M.	102 ASW-24	366	736	879	847	2828
5	Throssell, M. G.	98 ASW-19 Club	387	639	858	643	2527
6	Langrick, D. J.	98 Std Cirrus	387	755	897	445	2484
7	Piggott, A. D.	97 Astir CS	393	320	855	868	2436
8	Stuart, T.	102 ASW-24	328	790	891	399	2408
9	Pentecost, P. R.	98 Std Cirrus	387	751	855	401	2394
10	Jefferyes, M. B.	96 Silene	304	620	731	*404	2059
11	MacDonald, G. D. E.	94 Dart 17R	411	669	366	587	2033
12	Bridges, R. C.	96 Sport Vega	399	691	729	47	1866
13	Gilkes, G. N.	98 Std Cirrus	90	292	680	*720	1782
14	Pritchard, B. W.	101 Phoebus C	371	469	450	489	1779
15	Smithers, J.	101 DG-300	371	303	422	488	1584
16	Vaughan, R.	96 Sport Vega	195	581	-	427	
	Disdale, P.		-	-	246	-	1449
17	Nicholson, J. B.	102 Discus	377	*636	276	137	1426
18	Eade, D. J.	101 LS-4	371	177	464	*365	1377
19	Burry, Jill	100 DG-300 Club	72	571	*380	180	1203
20	Jelden, A.	98 Std Cirrus	294	151	503	173	1121

ENSTONE REGIONALS - August 13-21

Open Class

Pos	Pilot	Sailplane H'cap	Day 1.15.8 237km	Day 2.16.8 338km▲	Day 3.17.8 250.5km▲	Day 4.20.8 128.5km▲	Total Points
1	Wright, R. H.	106 Mini Nimbus	968	990	998	211	3157
2	Johnston, E. W.	112 Kestrel 19	1000	895	948	167	3010
3	Fox, R.	112 Ventus 16.6	931	866	985	0	2782
4	Jordy, M. J.	111 ASW-20L	519	866	1000	209	2594
5	Russell, F. K.	116 Glasflügel 604	761	791	899	DNF	2451
6	Cumner, G. M.	106 ASW-20	871	1000	259	211	2341
7	Nash, J.	104 PIK 20D	360	757	639	140	1896
8	Mills, J. N.	110 LS-3/17	783	611	501	DNF	1895
9	Gardner, T. R.	106 Mosquito B	772	651	418	DNF	1839
10	Brisbourne, R. P.	106 DG-200	789	763	259	0	1811
11	Wright, D. T.	112 Kestrel 19	504	395	668	DNF	1567
12	Duffin, E. R.	121 Nimbus 2c	911	*43	-	DNF	
	Jobbins, D. L.		-	-	523	-	1477
13	Maynard, V. H.	111 ASW-20L	295	393	432	130	1250
14	Reid, A. G.	106 Mosquito B	-	649	-	0	
	Brackstone, K.		*96	-	*316	-	1061
15	Rollason, J. A.	112 ASW-20BL	-	-	366	0	
	Ley, J.		292	340	-	-	998
16	Snow, A. R.	112 Ventus 16.6	*0	804	*0	DNF	804

Sport Class

Pos	Pilot	Sailplane H'cap	Day 1.15.8 204km▲	Day 2.16.8 306km▲	Day 3.17.8 231km▲	Total Points
1	Hawkins, G. P.	100 Std Cirrus	891	1000	998	2889
2	Mitchell, K.	98 Std Cirrus	1000	857	960	2817
3	Hogg, A. J.	102 Discus	826	836	1000	2662
4	Gardner, D. H.	97 Astir CS	865	930	780	2575
5	Terry, C. J.	101 LS-4	920	882	635	2437
6	Craig, G. W.	98 Std Cirrus	768	828	808	2404
7	Gentil, P.	100 SHK-1	738	839	658	2235
8	Ranson, J. B.	103 DG-300	800	783	470	2053
9	Baldwin, A. J.	97 Std Libelle	653	767	573	1993
10	Stuart, T.	102 ASW-24	900	885	*0	1785
11	Walker, P. B.	103 DG-300	784	*722	*265	1771
12	Blundell, S. G. P.	96 Sport Vega	-	161	-	
	Kendall, P. I.		767	-	520	1448
13	Wall, N. H.	97 Astir CS	380	781	DNF	1161
14	Wilson, T. G.	94 SF-34	161	669	-	
	Parker, A.		-	-	49	879
15	Heptinstall, P. G.	100 SHK-1	439	*43	337	819
16	Lutley, P. D.	101 LS-4	9	350	372	731
17	Bogdiukiewicz, S. M.	92 Pilatus B-4	146	303	53	502
18	Gregory, P. R.	99 Club Pegasus	17	368	DNF	385

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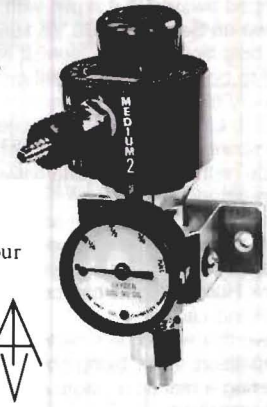
The 680 litre cylinder is of British manufacture in aluminium to BS 5045 specification and is supplied valved and charged to 2000 p.s.i.

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BGA & GENERAL NEWS

BRITISH TEAM SELECTED

The British team for the World Championships at Wiener Neustadt, Austria from May 14-28 has been elected. The voters were the "top 32" pilots, *ie* the team squad (17) plus the top five pilots in each Nationals who are not already in the squad. National Champions are *ex-officio* in the squad.

The first ten places went to Brian Spreckley, Justin Wills, Chris Garton, Martyn Wells, Dave Watt, Andy Davis, Robin May, Ralph Jones, Sally Wells (née King) and Ted Lysakowski. Dave Watt stood down since he does not want to fly Austrian mountains. That means that the entry looks like being 15 Metre Class - Spreckley, Wills, Garton; Standard Class - Wells, Davis and Open Class - May (plus his P2 in the ASH-25) and Jones. The limit is 50 per Class.

May 8-13 will be practice week on site and before that at Trieben Airfield for those who can manage the time. We wish them all the best of luck.

Ben Watson, *British team manager*

VISITING NEW ZEALAND?

Pilots going down under for some winter soaring should consider New Zealand where there is a gliding network to help.

The North Island has good thermal and ridge soaring (and some wave) while the South Island has the lot - with excellent wave in particular.

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Write to Gliding Homestay Network, PO Box 104, 104 Sunderland St, Clyde, New Zealand for details and allow 12 days each way for postage.

Mike Cuming.

NATIONAL LADDERS

This year all the top pilots on the National Ladders have taken photographs. Andy Davis has romped away with it again with a 312km task flown on September 30. At 1867pts, it is his fifth best flight and the highest score I know of to be gained on the last and frustratingly glorious day of the Ladder year.

The Club Ladder has shrunk in numbers and top score, backing up my belief that it should be re-thought. One alternative is to revive an old idea for a Weekday and Weekend Ladder. The rule, if acceptable, would be that any flight can be put on the Weekday (Open) Ladder but only weekend and Bank Holiday flights can be entered on the Weekend Ladder.

I believe this would be a better way to split the competition, those being able to fly all week having a real advantage. Any comments gratefully received.

Andy (Bristol & Gloucester GC) keeps the Enigma trophy with the L.du Garde Peach trophy for the Club Ladder going to Chris Starkey (Surrey & Hants).

Ed Johnston, *National Ladder Steward*

Open Ladder

Leading pilot	*Club*	*Flts*	*Pts*
1. A. J. Davis	Bristol & Glos	4	9799
2. N. G. Hackett	Coventry	4	8934
3. T. Stuart	London	4	6735
4. J. L. Bridge	London	4	6642
5. P. E. Baker	Cambridge Univ	4	6547
6. R. Pentecoat	Surrey & Hants	4	6527

Club Ladder

Leading pilot	*Club*	*Flts*	*Pts*
1. C. G. Starkey	Surrey & Hants	2	2438
2. P. Reading	Surrey & Hants	2	2437
3. D. Westwood	Coventry	4	2254
4. J. Walker	Coventry	4	2071
5. G. Wills	Coventry	3	2021
6. A. Kangurs	Coventry	2	1408

CHEVVRON IN LIMELIGHT

AMF Microlight Ltd's Chevvron 2-32 microlight was the centrepiece of the Department of Trade and Industry's exhibition stand at the Design Engineering Show at the National Exhibition Centre, Birmingham, in September. The DTI stand highlighted the use of advanced materials and the selection of Chevvron emphasises how the aircraft makes an outstanding use of these materials in the air.

NEW GLIDING CLUB

A new gliding club has been formed at Sackville, Riseley, 1½nm north of the NS runway of RAE Bedford with approximately 20 enthusiastic members.

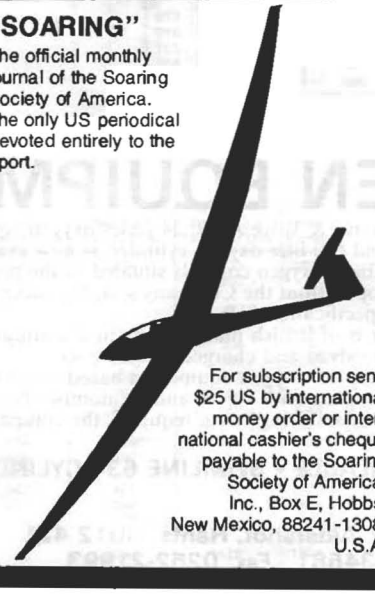
The airfield was first established by Jack Wilkinson in 1946, flying his own aircraft, later followed by his two sons and now his grandson, Tim Wilkinson. The grass strip is 1450yds and they have a 5½ litre petrol winch giving 1500ft launches as well as a syndicate owned Rallye Commodore for aerotows, a Blanik and a few single-seaters.

The annual subscription includes unlimited flying in the Blanik with launching extra. John Morris is the CFI and they have three assistant instructors.

They regularly visit Talgath and have a close association with RAE Bedford, flying at weekends and summer evenings plus the occasional weekday by arrangement with RAE Bedford. Sackville also have a well established clubhouse and visitors are welcome. For more details contact Tim Wilkinson, Tel 0234 708877.

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GLIDING CERTIFICATES



Phil Jeffery



Steve Longland

Amongst the pilots completing all three Diamonds are two members of the Cambridge University GC who became notable pioneers in the course of gaining their earlier Diamonds.

In May 1960 Philip Jeffery achieved Diamond goal No. 68 by completing a 300km triangle with a Skylark 3, in the days when this award could be flown as a straight downwind dash. This was the first 300km triangle ever flown from Dunstable and one of the first in the UK. Phil was also only the 25th British pilot to gain a Diamond height and, whereas many of his precursors had gained theirs overseas, his was home-grown in Cumbrian wave.

Steve Longland's height Diamond in a K-6E is No. 845 but in May 1974 he achieved Diamond distance No. 63 with an epic 500km triangle in a Skylark 3, the first time a glider of this performance had completed such a task in the UK, even though the Skylark was nearly 20 years old by then. See *S&G* August 1974, p157 for Steve's interesting account. A year earlier he also flew the Skylark for his Diamond goal, No. 2/474, so achieving all three Diamonds in wooden gliders.

All pilots and 00s please note that the current issue of the green claim forms is dated October 1988 and this is the one which should be used.

Gordon Camp, *FAI certificates officer*

ALL THREE DIAMONDS

No.	*Name*	*Club*	*1988*
248	Fairston, B. A.	Booker	16.6
249	Jeffery, C. P. A.	Cambridge Univ	16.8
250	Longland, S. N.	Cambridge Univ	7.9
251	Spencer, V. J.	Lasham	19.8.87

DIAMOND DISTANCE

No.	*Name*	*Club*	*1988*
1/369	Spencer, V. J.	Lasham (in Spain)	19.8.87
1/370	Fairston, B. A.	Booker (in USA)	16.6
1/371	Dawson, M. R.	Bannerdown	16.8
1/372	Jeffery, C. P. A.	Cambridge Univ	16.8

DIAMOND GOAL

No.	Name	Club	1988
2/1592	Hirst, A. T.	Booker (In France)	8.6
2/1593	Smith, D. M.	Booker (in Spain)	27.7
2/1594	Burry, Jill	Lasham	16.8
2/1595	Quigley, T. A.	Lasham	16.8
2/1596	Rotter, L. E.	Midland	16.8
2/1597	Gardner, T. R.	Cotswold	16.8
2/1598	Hurd, P. L.	London	16.8
2/1599	McNeil, S. J.	Wolds	6.6
2/1600	Edwards, D. M.	Chilterns (in France)	27.7
2/1601	Spencer, V. J.	Lasham (in Spain)	19.8
2/1602	Bennett, J. R.	Bristol & Glos	16.8
2/1603	Snow, A. R.	Lasham	16.8

DIAMOND HEIGHT

No.	Name	Club	1988
3/844	Riddell, J. C.	Yorkshire	7.9
3/845	Longland, S. N.	Cambridge Univ	7.9

GOLD BADGE

No.	Name	Club	1988
1269	Spencer, V. J.	Lasham	19.8
1270	Hirst, A. T.	Booker	8.6
1271	Rotter, L. E.	Midland	16.8
1272	Gardner, T. R.	Cotswold	16.8
1273	Hurd, P. L.	London	16.8
1274	McNeil, S. J.	Wolds	6.6
1275	Bennett, J. R.	Bristol & Glos	16.8
1276	Smith, R. J.	Bristol & Glos	25.5

GOLD HEIGHT

Name	Club	1988
Bick, Fiona	Deeside	22.6
Trevethick, Lisa	Strubby	22.6
Fitzgerald, J. F.	South Wales	12.3
Ball, R. G.	North Wales	10.7
Copland, P. W.	SGU	4.8
Allcoat, N. J.	SGU	12.9
Smith, R. J.	Bristol & Glos	25.5

GOLD DISTANCE

Name	Club	1988
Spencer, V. J.	Lasham	19.8.87
Hirst, A. T.	Booker (in France)	8.6
Smith, D. M.	Booker (in France)	27.7
Burry, Jill	Lasham	16.8
Quigley, T. A.	Lasham	16.8
Rotter, L. E.	Midland	16.8
Preston, R. H.	Wyvern	16.8
Wright, D. T. J.	Avon	16.8
Gardner, T. R.	Cotswold	16.8
Tebbs, R. C.	Wyvern	16.8
Hurd, P. L.	London	16.8
McNeil, S. J.	Wolds	6.6
Edwards, D. M	Chilterns	27.7
Bennett, J. R.	Bristol & Glos	16.8
Snow, A. R.	Lasham	16.8

SILVER BADGE

No.	Name	Club	1988
7725	Platt, R. D.	Midland	18.7
7726	Heneghan, M. J.	Portsmouth	20.7
7727	Dawe, B.	Lasham	15.5
7728	Barrie-Smith, N. J.	Lasham	19.6
7729	Taylor, D. J.	Two Rivers	10.7
7730	O'Sullivan, G. R.	Oxford	19.6
7731	Toon, R. J.	Wrekin	21.5
7732	Waters, A.	Kent	26.7
7733	Turner, P. H.	Bassetlaw	8.7
7734	Wilson, F.	Cotswold	20.5
7735	Kane, A.	Highland	27.7
7736	Albert, D.	Norfolk	22.6
7737	Waldron, D. I.	Kent	3.8
7738	Bills, R. J.	Staffordshire	2.8
7739	Hill, P. B.	Devon & Somerset	4.8
7740	Black, M. W.	Phoenix	14.4
7741	Monk, S. P.	Chilterns	20.7
7742	Connolly, W. L.	Kent	3.8
7743	Huttlestone, R.	Avon	20.5
7744	Langford, M.	Rattlesden	12.8
7745	Owen, J. N.	Norfolk	15.8
7746	Smith, R. A. V.	Yorkshire	16.8
7747	Jameson, D. G. S.	Booker	16.8
7748	Preston, A. M.	Lasham	15.8
7749	Burgoin, A.	Buckminster	16.8
7750	Cohen, P.	Lasham	16.8
7751	Buchanan, W. F.	RAE	16.8
7752	Saakwa-Mante, J.	Booker	16.8
7753	Miller, J. W.	Oxford	16.8
7754	Teaves, R.	Enstone	17.8
7755	Brown, G. B. D.	Cambridge Univ	15.8
7756	Ashcroft, D.	Bristol & Glos	21.8
7757	Hansen, S. A.	Avon	16.8
7758	Royds, L. T.	Avon	12.8
7759	Byrne, K. F.	SGU	23.8
7760	Starling, G.	Bristol & Glos	22.8
7761	Foster, P.	Norfolk	16.8
7762	Gretton, R.	Peterboro' & Spalding	26.8
7763	Roberts, V. J.	SGU	21.8
7764	Lindop, F. M.	Phoenix	22.5
7765	Dennett, M. I.	Yorkshire	5.8
7766	Banks, T. J.	London	7.8
7767	Woodage, L. P.	London	9.8
7768	Claxton, J. F.	Lasham	16.8
7769	Webb, M. P.	Staffordshire	28.8
7770	Oswald, P. D.	SGU	29.8
7771	Bourne, D. R.	Nene Valley	29.8
7772	Armson, A.	Chilterns	29.7
7773	Bleasdale, G.	Eagle	28.8
7774	Birch, M. J.	London	16.8
7775	King, R. A.	London	22.8
7776	Dawson, N.	Burn	28.8
7777	Tapson, Angela	Cranwell	3.9
7778	Wildman, Anne	Coventry	3.9
7779	Wright, A. C.	Burn	31.8
7780	Malcolm, S. P.	Wolds	31.8
7781	Flannery, A.	Burn	3.9
7782	Cross, G. W.	Nene Valley	3.9
7783	Edwards, J.	Norfolk	3.9
7784	Feeny, S.	Two Rivers	4.9
7785	Kent, M. P.	Lasham	16.8
7786	Haiselden, J. P.	Phoenix	13.4
7787	Daniels, G. J.	Oxford	4.9
7788	Wick, C. E.	Kestrel	3.9
7789	Kindell, C. J. W.	East Sussex	3.8
7790	Garrett, J.	Fulmar	11.9
7791	McPhillips, L. D.	SGU	20.9
7792	Tratt, P.	Southdown	9.9
7793	Weeks, L. A.	Chilterns	4.9
7794	Morgan, D. E.	Bath & Wilts	9.8
7795	Parker, D. H.	Newark & Notts	18.9
7796	Lawson, J. R.	Cranwell	18.9
7797	Lovett, J. B.	Thruxton	4.9
7798	Stevens, C. W.	Derby & Lancs	22.5
7799	McQueen, B.	Deeside	22.5
7800	Shuttleworth, P.	Midland	3.9

UK CROSS-COUNTRY DIPLOMA

Complete

Name	Club	1988
Wright, D. T.	Avon	28.5

Part 1

Name	Club	1988
Toon, R. J.	Wrekin	21.5
Pettifer, R. E.	Blackpool & Fylde	21.5
Barnett, Alison	Wyvern	7.8
Williams, R. A.	Midland	5.6
Swales, A. W.	Clevelands	21.5
Meyerhoff, P. D.	Wolds	9.8
Connolly, W. L.	Kent	3.8
Malam, R. N.	Wyvern	7.8
Brain, D. G.	London	16.8
Bradley, Dawn	Wyvern	22.8
Evans, T. J.	Pegasus	10.7
Albert, D. M.	Norfolk	3.9
Roberts, M.	Southdown	16.8
Royds, L. J. E.	Midland	16.8
Adam, K.	Deeside	17.9
Starling, R. A.	Newark & Notts	18.9

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1989 NATIONALS QUALIFYING LISTS

Compiled by GUY CORBETT, BGA Competitions and Awards Committee

PRIORITY LIST 1989

1	King, Sally	(S)
2	Wills, T. J.	(15)
3	May, R. C.	(O)
4	Smith, D. A.	(S)
5	Lysakowski, E. R.	(15)
6	Innes, D. S.	(O)
7	Davis, A. J.	(S)
8	Garton, C.	(15)
9	Wells, M. D.	(S)
10	Cooper, B. L.	(15)
11	Bally, J. D.	(O)
12	Gaisford, P. A.	(S)
13	Edyvean, J.	(15)
14	Hawkins, Pam	(O)
15	Young, M. J.	(S)
16	Morris, G. D.	(15)
17	Glossop, J. D. J.	(O)
18	Stafford-Allen, P. R.	(15)
19	Hackett, N. G.	(S)
20	White, S. A.	(15)
21	Jones, R.	(O)
22	King, P. A.	(15)
23	Boydon, M. V.	(O)
24	Hutchinson, S.	(S)
25	Cuming, M. F.	(S)
26	Elliot, B.	(15)
27	Docherty, T. P.	(O)
28	Rollings, C. C.	(QL)
29	Durham, M. W.	(S)
30	Webb, M. J.	(O)
31	Smith, E. R.	(S)
32	Campbell, D. R.	(15)
33	Watt, D. S.	(QL)
34	Hood, L. S.	(S)
35	Brown, H. F.	(O)
36	Kay, A. E.	(QL)
37	Moulang, A. P.	(15)
38	Lincoln, A. K.	(O)
39	Delafield, J.	(QL)
40	Forrest, B. R.	(S)
41	Cardiff, J. D.	(QL)
42	Smith, M. J.	(15)
43	Findon, D. E.	(O)
44	Clarke, A. J.	(S)
45	Eagles, T.	(S)
46	Thompson, M.	(QL)
47	Gorringe, J. P.	(S)
48	Sheard, P. G.	(QL)
49	Richards, E. W.	(15)
50	Pozerskis, P.	(O)
51	Pozerskis, A.	(QL)
52	McAndrew, G. E.	(S)
53	Szulc, B.	(15)
54	Bird, M.	(O)
55	Benoist, J. D.	(S)
56	Alldis, C. J.	(QL)
57	Murdoch, M. L.	(15)
58	Jones, P.	(QL)
59	Wells, P.	(S)
60	Davies, F. J.	(O)
61	Marczynski, Z.	(QL)
62	Cook, I. R.	(15)
63	Norrie, A. J.	(QL)
64	Harding, R. W.	(S)
65	Bastin, J.	(QL)
66	Zealley, T. S.	(15)
67	Taylor, J. R.	(O)
68	Ashdown, I.	(QL)
69	Kay, W. M.	(15)
70	Gardiner, D.	(O)
71	Miller, A.	(QL)
72	Dall, R. N.	(S)
73=	Evans, C. J.	(15)
73=	Hartley, K. J.	(15)
75	Metcalfe, G.	(VI)
76	Kingerlee, J.	(S)
77	Logan, M. W. B.	(QL)
78	Corbett, C. G.	(O)
79	Stuart, T.	(QL)
80	Smith, G. N. D.	(S)
81	Langrick, D. J.	(S)
82	Bromwich, R. C.	(15)
83	Murphy, T. J.	(15)
84	Cox, T. W.	(S)
85	Lyttelton, C. C.	(15)
86	Starkey, C. G.	(VI)
87	Throssell, M. G.	(QL)
88	Spencer, J. D.	(O)
89	Dawson, M. R.	(S)
90	Nash, S. R.	(15)
91	Cook, P. G.	(S)
92	Hayes, D.	(QL)
93	Morris, B. C.	(15)
94	Baker, R.	(QL)
95	Knowles, J.	(QL)
96	Jones, S. G.	(15)
97	Metcalfe, J.	(VI)
98	Jeffery, P.	(15)
99	Lee, M. E.	(QL)
100	Chaplin, B.	(QL)
101	Redman, S. J.	(15)
102	Smith, A.	(QL)
103	Ellis, J.	(O)
104	Darby, M.	(S)
105	MacPherson, D. J.	(15)
106	Buckner, G. G.	(QL)
107	Norman, L.	(S)
108	Reading, P. T.	(O)

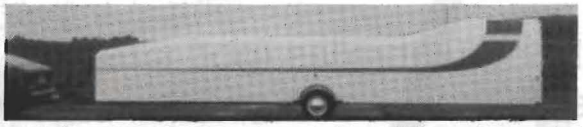
(15= 15 Metre Class, O=Open Class, ST=Standard, QL=Qualifying Lists, VI=Vinon)

PROMOTION LIST 1989

1	Smart, A. M. B.	(IS)
2	Odell, J. H.	(IO)
3	Jordy, M. J.	(HB)
4	Cardiff, J. D.	(DU)
5	Alldis, C. J.	(LB)
6	Hawkins, G. P.	(ES)
7	Bond, M	(NO)
8	Jeffery, P.	(LA)
9	Wright, R. H.	(EO)
10	Millson, A.	(IS)
11	Batty, C. J.	(IO)
12	Hood, L. S.	(HB)
13	Sanders, N.	(IC)
14	MacPherson, D. J.	(DU)
15	Strathern, M.	(NS)
16	Dall, R. N.	(LB)
17	Williams, P. R.	(IS)
18	Mitchell, K.	(ES)
19	Knight, R.	(NO)
20	Sheard, P. G.	(LA)
21	Heames, C. V. J.	(IO)
22	Johnston, E. W.	(EO)
23	Dobson, J. B.	(HB)
24	Kay, W. M.	(DU)
25	Moules, K.	(IS)
26	Norman, L.	(QL)
27	Bradney, F. G.	(LB)
28	Cook, P. G.	(QL)
29	Stewart, D. R.	(IO)
30	Evans, C. J.	(QL)
31	Hogg, A.	(ES)
32	McAndrew, G. E.	(QL)
33	Payne, R. D.	(NO)
34	Hamill, E.	(QL)
35	Morris, B. C.	(LA)
36	Manwaring, A. J.	(QL)
37	Stratten, P. J.	(IS)
38	Richards, E. W.	(QL)
39	Murphy, T. J.	(HB)
40	Somerville, A.	(IC)
41	Ellis, J.	(QL)
42	Fox, R.	(EO)
43	Davey, G.	(QL)
44	Langrick, D. J.	(QL)
45	Brook, M.	(NS)
46	Cunningham, G. W.	(IO)
47	Parker, S.	(QL)
48	Elwood-Wade, R.	(IS)
49	Pentecost, P. R.	(QL)
50	Gardner, D. H.	(ES)
51	Clarke, A. J.	(QL)
52	Bromwich, R. C.	(HB)
53	Camp, G. W. G.	(QL)
54	Nash, S. R.	(NO)
55	Dawson, M. R.	(QL)
56	Galloway, J. P.	(LA)
57	Corbett, C. G.	(QL)
58	Baker, R.	(DU)
59	Gaunt, T. R.	(QL)
60	Cook, I. R.	(QL)
61	Brownlow, S.	(IS)
62	Steiner, P.	(QL)
63	Throssell, M. G.	(LB)
64	Andrews, P.	(IC)
65	Terry, C. J.	(ES)
66	Foreman, M. C.	(IO)
67	Eagles, T.	(QL)
68	Jeffries, J.	(DU)
69	Spreckley, Gill	(QL)
70	Hodge, B.	(IS)
71	Dale, G.	(NO)
72	Craig, G. W.	(QL)
73	Watson, A. J.	(LA)
74	Benoist, J. D.	(QL)
75	Robson, D.	(NS)
76	Cumner, G. M.	(QL)
77	Darby, M.	(QL)
78	Russell, F. K.	(EO)
79	Boik, M.	(QL)
80	Meagher, Mary	(HB)
81	Marczynski, Z.	(QL)
82	Woodman, P.	(IS)
83	Lucas, A.	(QL)
84=	Kingerlee, J.	(DU)
84=	Lynn, S.	(DU)
86	Fincham, P.	(QL)
87	Piggott, A. D.	(LB)
88	Hymers, S.	(QL)
89	Lovell, C. D.	(LA)
90	Wright, J.	(IS)
91	Barnfather, B.	(QL)
92	Mitchell, T. M.	(IO)
93	St. Pierre, A. H. G.	(QL)
94	Copeland, D. D.	(HB)
95	Olender, S.	(QL)
96	Williamson, J. S.	(QL)
97	Gilkes, G. N.	(QL)
98	Gentil, P.	(ES)
99	Warren, J.	(QL)
100	Hughes, M.	(IS)
101	Miller, A.	(QL)
102	Stott, B.	(NS)
103	Stuart, T.	(LB)
104	Feakes, R.	(IO)
105	Duffin, E.	(QL)
106	Wright, D. T.	(HB)
107	Reading, P. T.	(QL)
108	Bryant, C. J. H.	(LA)

(DU=Dunstable, EO=Enstone Open Class, ES=Enstone Sports Class, HB=Husbands Bosworth, IC=Inter-Services Club Class, IO=Inter-Services Open Class, IS=Inter-Services Sports Class, LA=Lasham A Class, LB=Lasham B Class, NO=Northern Open Class, QL=Qualifying Lists)

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BGA ACCIDENT SUMMARY –

Compiled by JOHN SHIPLEY, Chairman, BGA Safety Panel

Ref No.	Glider Type	BGA No.	Damage	Date Time	Place	Pilot/Crew Age	Pilot/Crew Injury	Pilot/Crew Pl/Hrs	Summary
40	Nimbus 2C	-	M	24.4.88 1717	Parham	48	N	1160	The pilot's first flight on type was normal until he reduced airbrake just after landing. The glider rose up and dropped a wing in the crosswind. It then groundlooped which distorted the elevator drive pins. The two previous flights of this aircraft earlier that day had been followed by ground-loops. The conditions were known to be "awkward".
41	K-8	3305	M	6.4.88 1600	Currock Hill	68	N	17	The infrequent solo pilot launched in a K-8 with a side mounted trimmer unlike the stick mounted one he was used to flying. After having difficulty in trimming in the circuit he started his approach. Without looking at the control he mistook the trimmer for the airbrake and overshot into a field. Landing fast he groundlooped.
42	Blanik	1500	M	30.4.88 1609	Rufforth P2	38 18	N N	1070 0	A few feet into the ground run the glider weather-cocked to the left and headed towards a K-13 parked at a runway intersection. P1 pulled off but could not prevent a collision.
43	K-21	-	S	29.4.88 1600	Dunstable P2	36 54	M M	2007 96	The visiting solo pilot was being checked out to fly a club glider but his flying was of a poor standard and P1 arranged cable break practice. On the first at 500ft the stick was violently pushed forward. On the second, at 50ft, P2 banged the stick on to the back stop and P1 could not move it. The glider fell to the ground after a hammer head stall.
44	IS-28B2	2712	M	5.5.88 1200	Farnborough P2	24 18	N N	78 2.5	P2 made a good approach but rounded out late. The glider bounced on the main wheel then climbed rather higher than P1 expected. P2 then pushed the stick forward and closed the brakes. As the speed fell P1 took over and eased back. The glider landed hard tail first. P2 used to flying K-13s.
45	Skylark 2B	896	M	10.4.88 1555	North Weald	31	N	15	At 150ft on the reverse autotow launch the ring pulled out of the Otfur release. The pilot lowered the nose and, deciding to land ahead, opened the airbrakes. In spite of closing them slightly he did not have enough airspeed to round out properly and landed heavily.
46	ASW-19B	2760	M	4.4.88 1345	Glenbuchat	36	N	77	On a Silver distance attempt the pilot had to make a field landing. The field chosen had a **pronounced down slope and this combined with poor braking on wet grass** made stopping difficult. The glider was groundlooped before hitting a wall, damaging the wing and fuselage.
47	K-6E	2929	S	3.4.88 1700	Nr Kilsby	48	N	213	Flying cross-country with another glider the pair chose to land in a field. After radio discussion of the field, noting power lines along two sides, the first landed. The second glider then followed the same approach line but went lower rather than sideslipping in. He had to dive under unseen power lines across the corner of the field and hit a wing.
48	Std Libelle	2247	N	6.5.88 1300	Booker	61	N	74	After lining up for an approach the pilot decided that he should land to the left of his original spot. Changing direction by some 25° he landed OK. What he had not noticed was the other glider which was also landing and that had to ground-loop to avoid a collision as he landed across its path. See report No. 49.
49	K-18		M	6.5.88 1300	Booker	64	N	55	The pilot had set up his approach to land to the left of the field and the approach was normal. Just as he touched down he saw another glider approaching rapidly from the right. To avoid an obvious collision he groundlooped the glider. The other pilot had changed his approach line and had not seen this glider. See report No. 48.
50	Std Libelle	1768	M	3.4.88 1503	Enstone	61	N	169	In strong crosswind conditions the pilot was seen to underestimate the tailwind present on his base leg. The landing was made at fairly high speed and the glider, which was already tracking across the field, was difficult to control and may have weathercocked slightly. The glider ran into a fence on the upwind side of the airfield.
51	K-13		N	22.5.88	Kirton-in-Lindsey	?	N	-	The pilot was flying the K-13 with the hand operated rudder as he had lost both legs. A weld fixing the brake lever pivot and modified rudder control to the vertical tube of the fuselage failed. The brakes opened and rudder control was lost but the pilot was able to land on the airfield without incident. (Mod was BGA approved)

52	Cirrus	1916	S	22.5.88 1145	Kirton-in-Lindsey	47	M	250	During the ground run the pilot unsuccessfully tried to stop the right wing dropping. However the wing caught in the 9in high grass and the glider pivoted around the wingtip until the nose struck the ground, causing serious damage.
53	Libelle	1876	M	7.5.88 1445	Keevil	43	N	150	The left wing dropped and **caught in the 6in grass,** soon after the "all out" signal was given. Although the winch was stopped immediately the glider reached a height of about 4-5ft while turning through nearly 90°. On impact the undercarriage was sheared off. The pilot was inexperienced on the type and had not done many winch launches.
54	K-6CR	1149	M	7.5.88 1445	Nr Lydford	43	N	360	The pilot had been circling at 6-7000ft in wave when he suddenly found himself engulfed in a large thunderstorm. In extreme turbulence the poor visibility worsened in heavy rain/hail and full airbrake descent was made. The visibility improved at 800ft **and a landing was made using the DV panel.** Unfortunately he hit cables just before landing.
55	DG-200	2299	M	21.5.88 1819	Rufforth	?	N	Not given	On final approach with a K-7 behind him the pilot found the runway blocked by a taxying motor glider and two other gliders. Rather than hit these he made a fully held off landing in the long grass alongside the runway. Unfortunately he ground-looped. The motor glider was taxying with a rough engine and other gliders were hangar flying.
56	K-8B	3319	S	22.5.88 1642	Turweston	29	N	5	After a normal approach the pilot allowed the right wing to drop and the glider swung towards a boundary fence. The wingtip hit the fence and broke off while the nose rotated around, smashing the canopy.
57	K-7	3201	M	2.6.88 1745	Burn	36	N	1.5	An instructor had commented that the early solo pilot had rounded out rather high so on her next solo she rounded out later. The glider hit the ground and bounced before landing heavily with the airbrakes still open.
58	K-13	-	N	23.4.88 1315	Challock P2	62 ?	N N	676 -	The instructor allowed P2 to close the canopy then checked it was shut by pushing it. However, at about 500ft the canopy opened. P1 pushed forward and with the aid of P2 held the canopy closed while he landed. The mechanism was found to be tight and the lock barrels were out of line.
59	PIK-20B	2078	M	5.5.88 1715	North Hill	47	N	1364	The pilot was seen pulling out of a steep dive on final approach then landed with the wheel up. The aircraft bounced, the gear extended then collapsed. The pilot considered that he could not have pushed the control lever properly into the lock indent. The warning buzzer was not working as the battery was on charge. (Downwind checks probably not done.)
60	Falke	M/G G-BFHN	S	7.6.88 1530	Booker	63	N	605 +52pwr	During a motor off approach the pilot found himself too low. He attempted to restart the engine but could not and stalled on to the boundary hedge. He had not flown a glider for over a year.
61	Skylark 2		M	21.5.88 1830	Burn	36	N	800	The pilot descended from 5700ft at 110kt!. Observers noted that as he entered the circuit the wingtips could be seen to be bent down. During the final turn the glider was slowed down and landed normally. A 1.5 sq ft hole was found in the right wing and the fabric on top of the other wing also needed replacing.
62	Astir CS	R77	?	24.4.88 1630	Houghton-on-Hill	24	N	305	RAFGSA accident. No details as yet ...
63	T-21	1144	M	22.5.88 1600	Connel	42	N	29	In turbulent crosswind conditions the pilot anticipated sink and turbulence from nearby trees as on previous flights that day. However, he still found that he could not make the field. He then attempted to "dive and clear the fence" but caught the tail on the fence. He landed OK but the tailplane was damaged.
64	K-6CR	1284	M	4.6.88	Edgehill	39	N	16	On a day of turbulent lift the pilot had soared for 30min before encountering rain and joining the circuit. A full airbrake approach was made at 60kt. At about 400ft the pilot encountered very strong sink and without retracting the brakes found he was unable to get enough speed back to prevent a heavy landing. Wind gradient suspected.
65	K-6CR	2339	M	5.6.88 1600	Pocklington	47	N	22	During the approach heavy sink was encountered and an undershoot developed. The pilot was rather slow to close the half open airbrakes and as a result the aircraft undershot slightly into crop. This caused damage to the tailplane.

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

PETER DEEGE

COVERING WITH CECONITE

This article, by Peter of Hilversum GC, appeared in the Netherlands Vintage GC newsletter and has been translated by him in the hope that we may benefit from his experience. All who have seen the Caudron C-800, K-8, K-13 and Peter's own Grunau Baby will appreciate the exceptionally high standard of finish achieved by his methods of covering and finishing

After discussions with other vintage glider restorers, it was obvious that opinions differ on the use of fabric. With this article I hope to get an exchange of views of what is best to restore our oldtimers. In our club we overhauled/restored four gliders last year, covering them with Ceconite and finishing with a standard Sikkens paint scheme. Purists state that for restoration of an oldtimer the original materials must be used, *eg* linen and corresponding glues and dopes with cellulose paint. A good point, but practical consideration played a major role in our decision:

- Linen of the proper quality is more and more difficult to obtain.
- Ceconite is mostly from stock available at several firms.
- Prices of linen and Ceconite are about equal.
- Ceconite width is sufficient to cover a wing from leading to trailing edge, giving a better protection for casein bonded structures.
- Ceconite weighs less - a saving of about 6kg for a Grunau and 8/10kg for the K-13, which is important for payload critical gliders.
- No ageing of Ceconite and a better resistance to damage.
- Greater strength and durability, and easier to tension and repair.
- With Ceconite it is easy to obtain a very neat finish.

Against these advantages there are negative points too:

- Necessary use of prescribed adhesives, dope and thinners - these are expensive.
- Very precise use to obtain a proper fix of the Ceconite, dope layers and paint.

Working with Ceconite differs from linen, but the necessary skill is soon picked up by someone with fabric covering experience. The method described caused us little trouble and gave a fine result. The adhesive used is Super Seam Cement, and must be diluted so that it can easily be applied by brush.

Be sure to get a neat and equal surface - bubbles could not be removed later. For larger sec-

tions two thin layers are generally sufficient. For ribs and formers apply the cement without thinners in one layer - this gives greater adhesion required for the hollow curved under-side of a wing. Apply adhesive to all areas which contact the Ceconite and allow to dry for about one hour.

Position wings and fuselage in a horizontal position - covering in a vertical position is difficult. Put the complete sheet of Ceconite over the appropriate section loosely, remove the wrinkles but do not stretch the sheet. Take a clean white piece of cloth, soak it with nitrate thinners, and rub over the leading and trailing edges and ribs. Ensure that you get even square sections. The thinners will dissolve the adhesive and thus fix the Ceconite to the structure.

Dividing a wing into small sections is necessary to avoid high loads when the Ceconite is tensioned later on. If for some reason there are still wrinkles at corners or ribs, leave a sufficient area unfixed to allow the wrinkles to shrink away during the tensioning. We use a normal household heating iron for tensioning, with the thermostat on position "linen". Constant moving the iron from centre to edges, lightly tensions the complete surface.

Warning: due to the high shrink rate of Ceconite ± 25% - very high loads occur on larger areas - trailing edges and ribs can easily bend and deform, or surfaces can twist. Keep the iron moving over larger areas to avoid a spot overtensioning or overheating - if Ceconite is overheated it will melt. If the complete surface is evenly tensioned and all the wrinkles removed, wash all the contact areas carefully with a clean cloth soaked in nitrate thinners. It may happen that areas of Ceconite are not sticking to the surface - in that case rubbing with pure Super Seam cement until it sticks will cure the problem.

Surface tape for extra damage protection

If both sides are finished and lightly tensioned, Ceconite surface tape can be applied to the butt ends on the leading edges and the trailing edges (not rib corners) for extra damage protection. The adhesion of Super Seam cement is sufficient for the curved underside of a wing, but we stitched the underside as an extra precaution and covered the stitches with surface tape. Between the stitches and Ceconite use polyester tape to avoid tearing.

After all covering material is properly finished, the surfaces can be given the final tensioning, again tensioning equally to avoid bending or twisting. Now the drain holes can be melted into the correct places using the round tip of a soldering iron - do it carefully and cool the drainhole with your finger tip. Next, the first layer of dope - there are two types, Rand-o-Proof and Rand-o-Kill. Use the green type for those sections to be painted in a colour, and transparent for transparent sections. For the best adhesion results use for the first two layers a mixture of 75% dope and 25% Super Seam cement diluted with 50% nitrate thinners. These layers must be carefully and equally brushed on to the surfaces - the thin dope is pressed through the Ceconite giving an anchor on the underside. The following layers are only dope, sufficiently diluted for brushing. In most cases five to six layers give the Ceconite sufficient sealing and body. The covering is now completed.

The paint scheme can now be applied, which is a completely different subject. Two points I would like to make here:

1. Investigate which primer coating provides the best adhesion - many ordinary primers and coatings will not stick.
2. We have very successfully used a paint roller instead of spraying.

Conclusion: we obtained a good and durable system with a very fine finished result. It took about 100 working hours and cost about 1000 Dutch Guilders for the complete average size glider. Four years later there are no problems so far in normal club use.

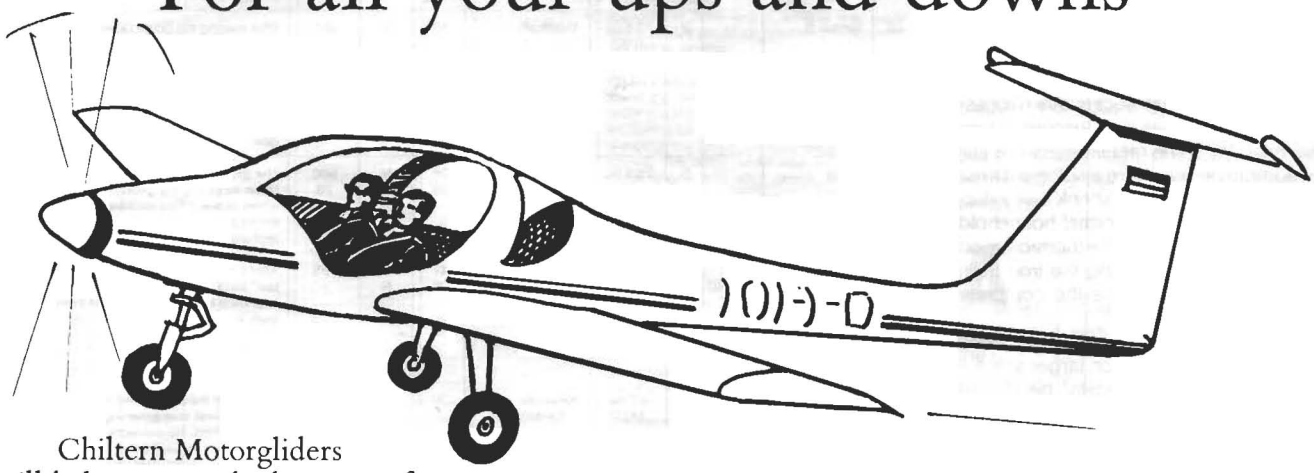
I hope that I have contributed something with this article and would welcome comments from others, especially those with experience of Diolene or similar materials. Hopefully we can then all benefit from this and similar articles.

This article first appeared in the Vintage Glider Club's magazine and is reprinted with their kind permission. For anyone wishing to contact Peter, his address is Willibrordus Laan 152, 1216 PE Hilversum, Holland.

66	K-13		M	1.6.88 1315	Tibenham P2	54 40	N N	1926 25	While thermalling below an Astir the K-13 crew lost sight of the other glider. **Rather than leave the thermal P1 decided to continue the turn** in "the hope of getting his position". Meanwhile the Astir pilot had also lost sight. The Astir hit the K-13 from behind, damaged the latters aileron and entered an incipient spin. **Both gliders landed safely.**
66	Grob Astir	2351	M	1.6.88 1315	Tibenham	36	N	91	This aircraft hit a K-13 from behind then entered an incipient spin. See previous report for details.
67	ASW-20L		S	19.6.88 1800	Booker	52	N	429	On an aerotow launch the wing dropped and the pilot failed to pick it up. He changed from negative to positive flap and the glider became airborne and rotated about the wingtip and broke the fuselage in half. This was the pilot's first flight on type.
68	Ventus B		S	19.6.88 1350	Graffham	58	N	261	After soaring the South Downs the pilot found he had to make a field landing. Having earlier seen smoke drifting in the northerly wind he made a landing in that direction in a field of cut grass. A wingtip caught in the plied grass and the fuselage was badly damaged. The sea breeze front penetrated well inland and he had landed downwind.
69	Eagle		S	25.6.88 1700	Oakhampton P2	28 29	N N	900 28	The glider was landed into wind and up a slope. Upon stopping the glider, which did not have a wheel brake, rolled backwards down the hill into the hedge. The field was steeper than anticipated and smooth.
70	Falke	M/G G-AZHD	S	17.6.88 2100	Winthorpe P2	47 26	N N	155 -	After landing the motor glider was lifted off to "air taxi" back to the hangar. The final stages on the hop were in the lee of a line of trees and the aircraft sank rapidly from about 8ft, damaging the propeller. The pilot was unable to stop the wing catching in long grass which turned the aircraft towards a fence which it then hit.
71	Pirat	1531	W/O	3.7.88 1422	Kirton-in- Lindsey	?	M	?	In weak lift the pilot drifted too far downwind and with the wind strengthening attempted to return to the airfield. He correctly decided that a field landing was inevitable and picked a cornfield. At 300ft he noticed that the field had a steep upslope and turned away. The glider entered a spin from which it did not recover.
72	K-8	1715	M	4.6.88 1615	Camphill	54	N	45	While ridge soaring the pilot saw approaching rain and used airbrakes to descend to circuit height over the airfield. On his circuit he did not notice that he was climbing in lift and also the changed wind direction. As a result he found himself too high and too far down the airfield. To avoid hitting the far wall he turned left (downwind) and groundlooped.
73	K-7/K-10	2489	M	25.5.88 1930	Camphill P2	48 49	N N	600 ?	In light wind conditions the glider was being landed towards the launch point. The instructor had previously made four such landings, judging his ground run by reference to a control point trailer. On his fifth landing he failed to notice that a tractor was parked further into the field than before and hit it.
74	LS-4	2919	S	18.6.88	Nr Dursley, Glos	33	N	990	The pilot was flying a normal approach behind another competitor into a field when the glider in front groundlooped. Therefore the pilot decided he had to do a short field landing and increased his rate of descent. As he refocused on his new landing area he saw a post straight ahead and only had time to shield his face before he hit it.
75	Pilatus B-4		S	25.6.88 1510	Chipping	40	N	210	After a normal lift-off the glider was flown level at 50-60ft as the pilot thought he was too slow. The winch driver stated that as the engine revs were increasing and the glider was not climbing he cut the power. The pilot failed to lower the nose quickly and, with the cable caught around the left wing, landed through the far boundary fence.

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BGA COURSES FOR 1989

The new national coach announces the exciting programme of courses for the coming year.

This article should really be headed "advertisement", since it is not really the first of a series of articles by your new national coach, but simply a plug for next year's courses. However I do feel that even those of you who are not considering booking on a BGA course next year are entitled to know what the coaching operation is up to, so here goes:-

Soaring and Cross-Country Course 1 (April 15-23) at the Coventry Gliding Club, Husbands Bosworth. This course is primarily aimed at the less experienced soaring pilots who would like some help in developing as cross-country pilots. It will be particularly suitable for potential instructors who have little cross-country experience (and in particular those who still need to complete a Silver badge), new first time private owners who would like some help in getting the most out of their new toys and pilots from clubs where geographical features tend to inhibit cross-country flying.

The course will consist of

1. Lectures and briefings on soaring cross-country flying.
2. Dual instruction and cross-country flying in the BGA Janus (and other gliders as available).
3. Lead and follow cross-country flying with the national coach and helpers.
4. Task flying on set tasks.

Pilots will need to bring or hire their own glider. Since some outlanding is possible (likely!) on this course, pilots will need to have a crew (one is usually enough) and a tow car, or be prepared to expect some very long waits as course members retrieve each other. Two pilots sharing a glider and flying on alternate days is a good way to solve this problem. Pilots who wish to attend the course and share a glider should contact the BGA office - we'll try to match you up but we don't guarantee compatability!

BGA course fee £75.00.

Coventry Gliding Club temporary membership and aerotows at normal rate. Janus flying £16.00/hr for the first two hours of any flight; after two hours, no charge. Additional costs will be accommodation locally and hire of glider if not using one's own.

Soaring and Cross-Country Course 2 (May 20-29) at Devon and Somerset Gliding Club, North Hill. This course is aimed primarily at helping those pilots who find cross-country flying difficult in the sea breeze ridden air of the west country. Details of the course, content and costs are the same as SCC1 above.

Instructors' Cross-Country Course 1 (May 6-14) at Booker Gliding Club. Aimed at Instructors with a moderate amount of cross-country experience and intended to improve speed flying to a point where 500km flights and successful participation in Regionals become possible. Some time will also be spent on methods of teaching cross-country flying.

BGA course fee £50.00. All other details as previous course.

Instructors' Cross-Country Course 2 (June 10-18) at Booker Gliding Club. For instructors who for one reason or another have done little or no cross-country flying since their Silver distance. The course will consist of dual cross-country flying, escorted cross-country flying, navigation and field landing training in motor gliders if required, and task flying with a view to gaining the UK Cross-Country Diploma and Gold distance/Diamond goal if possible.

Costs the same as Instructors' Cross-Country 1.

Instructors' Cross-Country Course 3 (July 3-9). Venue to be notified but probably in France. This course is intended to teach cross-country flying and speed flying at the highest possible level, and also to devote some time to methods of teaching advanced cross-country flying. It is aimed at experienced cross-country pilots who are also current instructors, and who might be able to help with the coaching programme in subsequent years. Contact the BGA office for further details and costs.

Competition Cross-Country Courses 1+2 (June 3-11 - Dunstable) and (July 15-23 - Lasham). Flying *hors concours* in the Open Class and the Janus in the 15m Class with an experienced Nationals pilot as coach. Only three places per Comp available so book with the office now. Costs on application.

In addition to the above the normal instructors' courses (11 courses and 61 places) and completion courses are available at various locations around the country throughout the season.

Wave Soaring and Wave Cross-Country Courses

Aboyne	
Sept 21-29 Sept 30-Oct 6	Wave cross-country
Oct 7-13 Oct 14-20 Oct 21-27 Oct 28-Nov 3	Wave for height gains

The first two cross-country weeks are aimed at pilots with a fair amount of both cross-country and wave flying experience, to try to teach them to combine the two into successful wave cross-countries. Instruction will be both in two-seaters, and on lead and follow basis. It is intended that two two-seaters and two single-seaters will be available for the courses. It may not be possible for course members to bring additional aircraft due to Aboyne's need to restrict the number of gliders on site.

The purpose of the four "wave for height gains" weeks is to provide a wave expedition for members of BGA clubs who do not have their own expeditions north in the autumn. These weeks will be particularly useful to instructors looking to broaden their experience, but non instructors are welcome as well. The course will consist of dual instruction in wave flying (and landing at Aboyne), lots of Gold and Diamond heights and a splendid social life in the evenings.

BGA course fee £50.00.

Temporary membership at Deeside Gliding Club. Aerotows at normal club rates, flying fees £16.00/hr for first two hours/flight and thereafter no charge. It is intended to book local self catering accommodation for course members (better and much cheaper than hotel or bed and breakfast).

The coaching operation is also playing a part in running the Junior Nationals Championships at Booker from August 26-September 3 which is a competition, with coaching, for all pilots under 25 years of age. This year's Comp was great fun despite the weather. The cost this year was entry fee £0, aerotows £0 with the BGA and Sports Council contributing £100/entrant towards competitors expenses. Next year will probably not be quite so generous, but still a good deal.

Contact the office for entry forms.

Please understand that, at the time of writing, some of this programme is still provisional, as not all of the clubs involved in hosting the courses have yet been able to confirm they are willing and able to participate. If you are a committee member of one of the clubs involved, and you find out about your involvement first from this article, my apologies. My communications are not yet perfect but I will try to make them so.

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CLUB NEWS

Copy and photographs for the February-March issue of *S&G* should be sent to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH to arrive not later than December 6 and for the April-May issue to arrive not later than February 7.

GILLIAN BRYCE-SMITH
October 12

AQUILA (Hinton in the Hedges Airfield)
This is written as we set off on our first expedition of 1988 to Sutton Bank. Our replacement K-8 has been well received, some of the geriatric members actually achieving reasonable flights.

Utilisation of the Astir is still disappointing. We welcome our new staff instructors, Ronan Harvey and Harry Purser and look forward to our end of season supper.
J.R.

AVON (Bidford)
The expansion of the airfield and office complex have gone very well.

Well done to Bob Sharman on winning the club ladder and to Richard Palmer on being a close second. Congratulations to Roy Palmer (Silver badge); Aiden Grimley (Silver height and duration); Chris Haseler and Alan Aubeelac (duration) and Dennis Wright (Gold distance - 5km short of a Diamond and 7th and 11th in Regionals).

The new L-Spatz syndicate with Anne Hopkins and Mike Hayes is doing well. Friday evening flying went well. Visitors are welcome to enjoy a friendly atmosphere and free airspace.
D.T.W.

BANNERDOWN (RAF Hullavington)
After a promising start the remainder of the summer was disappointing, but there were some achievements for club members away from home. We were represented in all the Nationals - Standard (Simon Hutchinson), 15 Metre (Tom Eagles) and Open Class (Brian Logan). Andy Smart (Discus) won the Inter-Services Regionals' Sport Class and Pete Woodman (Astir CS) came 9th.

Jon Arnold flew in the Junior Nationals but the practice day showed such promise that his crew member, Mel Dawson (who happened to have the club Discus with him) flew 500km in 6hrs 40min at 75km/h.

The season closed happily with us winning the Inter-Club League, Simon Hutchinson, Andy Smart and Jon Arnold winning their Classes. Congratulations to Odiham for organising a very well run final.

We hosted Wyvern for two weekends when they were unable to fly at Upavon.

On the last soaring day, Simon Hutchinson, took the Ventus to Odiham to reclaim "the boot" from their bar.
D.C.F.

BASSETLAW (Gamston Airfield)
We congratulate Sallyanne Turner on going solo on her 16th birthday, a club first, also Barrie Codling, Keith Gregory and Peter Storey on soloing;



Sallyanne Turner of Bassetlaw GC with CFI John Swannack. Photo: Barrie Codling.

Alan Marshall, Scott Gosney and Keith Hebdon on their Bronze legs, Keith gaining both on the same afternoon; Eric Marshall on one Bronze leg and Glen Barratt on his Bronze badge and Silver distance to Crowlands. The flight was in the K-7 acquired with Eric Boyle's help from Germany - we now hope to get financial support for the glider from the Sports' Council.

Many thanks to Glenn Barratt, Eric Marshall, Peter Storey and Peter Clayton for building the K-7 a covered trailer and also to the Marshall brothers for painting the Swallow.

We held a most successful open day on October 2 when over 30 visitors became monthly members and enjoyed trial lessons.

Will visiting pilots please note that we are not permitted to fly under 1500ft over the main runway of the airfield (owned by Budge Aviation).
T.H.B.B.

BATH & WILTS (Keevil)
Our silver anniversary party was a great success with a good turn-out including four of the original members.

Congratulations to Peter Greed and Paul Slater on going solo and to Dave Morgan on completing his Silver badge with a distance flight from the Long Mynd during our visit in August. We were rewarded by many hours soaring and a chance to experience bungy launching. Our thanks to the Midland GC.
M.G.

BICESTER (RAFGSA Centre)
Our new gaggle of solo pilots have brightened our otherwise dull summer: well done to Karen Walker, Phil Jones, Siobhan Hinkley and Alan Duerden, Alan soloing during our Inter-Services Regionals.

Bob Northover, Ron Pepper and Ken Miniet, all with two Bronze legs, are fighting over the club's K-18. "Noddy" Williams flew his 300km early this spring - sorry for the omission "Noddy ".
M.H.

BLACK MOUNTAINS (Talgarth)
Congratulations to John Bally and tug pilot Mike Young for their summer competition successes. Also to Steve Williams who soloed on October 2 having attended an August introductory course. He is the second pilot to solo at Talgarth after only 21 launches.

Chairman Derek Eckley, after 1000hrs, has discovered the barograph and recently claimed Gold height and Silver distance.

September produced a lot of wave and we have had our first autumn expeditions from Challock and Oxford.
W.D.M.

BRISTOL & GLOUCESTERSHIRE (Nympsfield)
The 162 course members - slightly more than last year - enjoyed a considerable amount of flying despite the poor weather. Our thanks to our resident instructors John and Steve and tug pilots, Dave and Simon.

Our new manager, Stan Franklin, is producing thought provoking flying statistics with the help of the new admin computer system using software developed by John Taylor.

Membership is increasing particularly with pilots joining from other clubs. We have 45 privately owned gliders, the club fleet has expanded and the clubhouse is being extended (complete with briefing room).

Next season we are hosting the Western Regionals.
M.G.W.

CAIRNGORM (Feshiebridge)
We are in the middle of a busy wave season with more than 20 gliders here since mid-September. We have flown on all but two days with several Gold heights achieved and on the few waveless days there have been 5hr flights.
S.M.

CAMBRIDGE UNIVERSITY (Duxford Airfield)
Our thanks to SGU for hosting our very successful annual camp for the first time at Portmoak. We had good ridge, thermal and wave days with

height gains for David Moore (Diamond); Sandy Torrance, Howard Franks and Brendon Bradley (Gold) and Martin Roney (Silver). David Heath-White and John Birch went solo and there were 16 durations.

Meanwhile at Aboyne, Steve Longland and David Howse flew Diamond heights and Jerry Thomas Gold height. Later in September at Portmoak Iain Baker and Robert Bryce-Smith achieved Gold heights and Jane Whitehead her 5hrs.

Back at Duxford, in August Phil Jeffery, Steve Mynott and Phil Atkin flew 500kms and Sandy Torrence a 300km; Nick Robinson, Brian Davies, Colin Smithers, Andy Greenhaugh and Frank Zachariasse went solo; Ed and Hazel Pearson gained Silver heights; Jeff Bisset Silver distance, Geoff Brown, Howard Franks, David Oswald and Chris Hawkins completed their Silver badges and Barry Beazley, Bryan Hooson, David Levien and Ken Thompson their Bronze badges. Congratulations to them all.
L.A.W.

CHANNEL (Waldershare Park, Dover)
We have had a most successful course season with more students than before and many repeat visits. Congratulations to Ray Belsey, Paul Bevan and Mick Braund on going solo and to Ron Wood on his second Bronze leg in the T-21.

The Motor Falke will be back early in 1989 and the annual dinner-dance is on December 16 to which all friends are welcome.
R.A.

CHILTERNS (RAF Halton)
We have enjoyed a very active summer. Roger Ellwood-Wade came 6th in the Inter-Services Regionals' Sport Class, his first competition.

Six members went to the French Air Force Gliding Centre at Romorantin to wonder at the facilities of this service gliding Mecca and the hospitality of the French. Notable flights were a Diamond goal by Dave Edward (Astir); a 296km by Bob Fox (K-21) on a 300km attempt; 450km of a Diamond distance task by Les Fellows and Silver badges for Andy Armson and Steve Monk, Andy flying all the legs at Romorantin.

Back at Halton, congratulations to Lawrence Weeks on completing his Silver badge with a flight to Duxford and to Caroline Ellam on going solo.

We wish a fond farewell to our CFI, Oscar Constable, who becomes CFI of Crusaders, and welcome our new CFI, Jed Edyvean.
L.F.

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CLEVELANDS (RAF Dishforth)
The summer has been marked by strong winds but we have had good wave days with climbs in excess of 20000ft on several occasions. Congratulations to Gary Mennell on his Silver height and to his father Brian on his 5hrs after a very near miss on the previous attempt.

We are pleased to see the Acro back after its grounding and a new Discus joins the club fleet.

We are holding our usual Christmas/New Year wave celebrations which we look forward to sharing with friends old and new - all are welcome.
J.P.

CONNEL (Connel Airfield)
At our invitation Alan Mossman flew over from Feshiebridge in the Cairngorm's Falke to give us advice on operating a motor glider.

Nearly 60 members, past and present, and visitors from other clubs came to our "fly in" weekend at the end of August in honour of Bob Rothnie. It rained most of the Saturday but Billy MacLean took a group clay pigeon shooting until the weather improved. At the evening barbecue our chairman, John Anderson, presented Bob with life membership in recognition of services to the club and asked him to formally "open" the hangar.

John MacGilvrary, our CFI, is out of hospital, plumper, calmer and nicotine free. He is still on crutches and refused to be lifted into the T-21 for a check flight!
R.W.

CORNISH (Perranporth)



Andrew Cullen of Cornish GC with his instructor, Tony Turner.

A highlight was on September 5 when Andrew Cullen went solo on his 16th birthday, two months after his father Tom. His instructor, Tony Turner, who was 77 the following day, presented him with his wings.

Tony is probably the oldest BGA instructor. I was fortunate enough to be one of his first pupils at RAF Bicester in 1965. John Blackwell has also soloed - congratulations to them both.

We had a party at the clubhouse for Pip (founder member/treasurer and course secretary) and Ruth Phillips' ruby wedding anniversary - but most important of all for Pip's recovery from throat cancer. A superb cake made by Dorothy Hunter depicted his career as a wartime fighter pilot and "simple" Cornish draper.
G.A.H.

COTSWOLD (Aston Down)
We won the Rockpolishers League trophy and at the Inter-Club League final came an incredibly close 2nd to Bannerdown. (See report in this issue.)

Congratulations to Mark Harrison, Andrew Silcox, Mike Hart, Ron Fawkes, George Short, Ian Lake and Garrad Randle on going solo, Garrad getting a Bronze leg on his second solo; Gordon Kerr on his 5hrs; Chris Ebbs, Steve Cook and Dave Johnson on their Silver distances, Dave completing his Silver badge, and Jim Rodgers and Eric Breider on resoloing.
G.M.

COVENTRY (Husbands Bosworth)
Our cross-country briefings at weekends have encouraged eager pilots to achieve a record number of Silver distances in recent weeks.

Our aviating identical twins, Steve and Paul Crabb, have created much interest, first by flying their 5hrs on the same day, then by one flying to Dunstable and the other flying back, both achieving Silver distance. Other Silver distances have been flown by Nick Taylor, Anne Wildman, Cliff Jones, Chris Spiers and Graham Thomas. Unfortunately Martin Chamberlain's flight to Fulbeck couldn't be claimed due to an invalid barograph. Congratulations to Derek Westwood on his 300km Diamond goal in the club ASW-19.

Winter expeditions started with the annual trip to Feshiebridge in October and several are going to the Long Mynd in November. Monthly quiz evenings will be held in the clubhouse to encourage more social activity during the winter.

Club members are currently opposing a large housing development adjacent to the airfield.
D.L.S.

CRANFIELD (Cranfield Airfield)
We had a good season despite some indifferent weather. Congratulations to Peter Child, Steve Faulkener, Bob Johnson and Rob Cairns on going solo, Peter later gaining both Bronze legs; to Ian Biggs on completing his Silver badge in a single flight to Bruntlingthorpe and to Phil Warner on his Bronze badge.

Our July flying week didn't have spectacular soaring conditions but permitted extensive training and was concluded by a successful barbecue. Our thanks to Julie King the organiser.

The syndicate Blanik puts the club aircraft to shame with its new one-piece canopy and nosehook. Several members had an enjoyable expedition to Sutton Bank in June.
P.J.W.

CRANWELL (RAFGSA)
The Motor Falke has flown (if only 20ft at first) after 16 months off line. The replacement Astir is popular but we are still waiting for the K-21 to replace the K-7.

Some members took part in the Wolds GC's Two-Seater Comp and came 5th - not bad in a K-7. There is an expedition to Dishforth at

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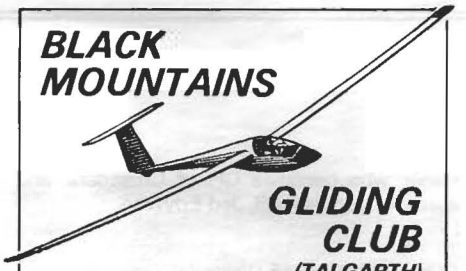
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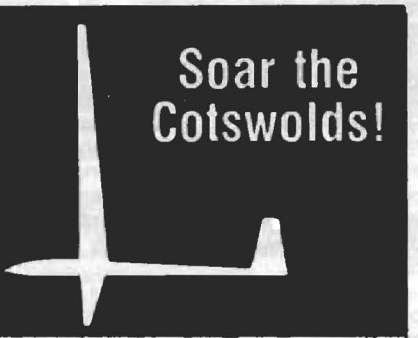
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Christmas/New Year.

Congratulations to Angie Tapson on her height to complete her Silver badge. A special thanks to Angus Watson for his years of hard work for the club and good luck at university.
B.S.

DARTMOOR (Brentor)
July, normally our best month, was the wettest since 1937 and our launch rate, in spite of our efforts on our "longest day", is down. But we are still collecting new members from holiday makers and many return from considerable distances to fly regularly.

Our new winch is giving a well deserved rest to our old faithful. Both were built by members. Colin Sanders and Gill Jenkins have their own "sewing circle" making drogue chutes.

New solo pilots include our secretary, Graham Lobb. Brian Cordier and Peter Burton have their Bronze badges and our chairman, Roger Matthews, is now an instructor.
F.J.M.

DEESIDE (Aboyne)
After several years of negotiation the old stony track to the hangar has been given a tarmac surface. It was hoped this would reduce damage to tug propellers. However, a day or two later the Cub was tipped on its nose on the grass! You can't win.

Our first Sport Vega suffered an alarming excursion into some trees during take-off but we were fortunate to get a replacement. We have also acquired an Open Cirrus, extensively refurbished and with an undercarriage warning. This mod proved to be a devil in disguise when due to a combination of circumstances it prevented the wheel from being lowered! Murphy's law strikes again.

The bland summer gave a final burst of heat in early September when we were treated to a proper wave period - 21 days of wave, 18 of which produced flights over 10000ft and eight days over 20000ft. Two motor glider records are being claimed, the first on September 11 being the Danish height gain (regrettably no oxygen to get higher than 13000ft) and the second on September 27 up to 22000ft by Mike Throssel in a Janus M.
L.E.N.T.

DERBY & LANCASHIRE (Camphill)
We were well represented at the Wolds GC's Two-seater Comp; congratulations to the winning K-21 syndicate who established a substantial lead on the first day owing to an excellent 200km O/R by Mike Armstrong. A relatively inexperienced team led by CFI, Ken Blake, finished a commendable 6th in a club aircraft.

Another K-7 joins the club fleet. The summer ended with a visit from members of Husbands Bosworth.
A.H.

DORSET (Old Sarum)
As a result of our longest day efforts on June 26 we presented £800 towards a local lifepack appeal.

Bill Cook and John Harper, with sundry help, have been restructuring our clubhouse and a barbecue and party run by Derek Cracknell, Rene and Carol was held as a grand opening. We were delighted to see many faces from our past.



Esther "Polly" Bennet at 11 years has a long wait to go solo but at 57½in is learning to fly at the Dorset GC with specially adapted shoes.

Congratulations to Robin May on winning the Open Class Nationals. Robin was with us from *ab-initio* to CFI before moving to Dunstable to further his flying career. Congratulations also to our K-7 team, Gerard Dale, Nik Antcliffe, Terry White and Pete Allingham, who came 3rd in the Wolds GC's Two-seater Comp and to Jim Lowther, Steve Wells and Paul McCreath on going solo.

Our new winch is now complete thanks to the efforts of Tony Pattimore and Steward Hughes and helpers, and what a beauty it is.

Long standing members were saddened by the death of Ken Phipps, a past chairman, DCFI and honorary life member. We send our sympathy to his wife Gloria and the children.
D.N.

DURHAM UNIVERSITY



Andrew Wright of Durham University GC who has a Palatinate for gliding.

We had two courses at Northumbria GC, both with reasonable weather. Congratulations to Ken Westgate on going solo and our thanks to the NGC instructors.

Andy Wright has earned a Full Palatinate (university colours) for "service and ability" in gliding. He was captain for two years, the first club member to solo, gained his Bronze badge last year and has just completed his Silver badge. His connection with the club will continue as he is studying for a MSc at Durham.

Good luck to the new executive and Darren Johnson, our captain.
A.N.O.

ENSTONE EAGLES (Enstone Airfield)
Despite the poor season our membership has increased by over 25%. Although we only had 3½ days for our Regionals we had a 300km day with 25 finishers which we believe is a record for a British Regionals. Congratulations to Ron Wright for winning the Open Class and Phil Hawkins the Sports Class. Ken Sparkes is now open for entries for next year - from August 12-20.

Jon Smith and David Kennedy have soloed; David Bell and Paul Noonan have both Bronze legs; Roger Teaves has completed his Silver with a distance flight to Husbands Bosworth; Colin Green has Silver height and Peter Bailey Silver height and distance and a Gold height at Aboyne.

Tom Miller and his tug have done stirling work giving us reliable alternative launching.
R.J.P.B.

ESSEX & SUFFOLK (Hadleigh)
We came 3rd in the Inter-Club League final - our thanks to those whose skilful flying made this possible - and Peter Joslin won the Novice Class on one day.

There are quite a few contenders for the fastest handicapped time around the club 100km triangle with Mike Farr, Mervyn Gooch, Pete Wilby, Paul Rice and Mike Haynes completing it recently.

Congratulations to Peter Hart for his 100km O/R on his first Silver distance attempt and for gaining Silver height. Also to Chris Nunn (Silver distance); Steve Hornung (duration) and A. Hall for completing the club 200km triangle.
V.H.

FENLAND (RAF Marham)
Our twin drum winch is performing very well. Some reasonable weather has lead to notable achievements. We congratulate Kenny Scott on going solo; Dave Sharp on Silver distance; Mick Toon on his Bronze badge and a special well done to Jerry Odell on winning the Inter-Services Regionals' Open Class.

Rhod Evans and Mick Toon have bought a K-6E. Adrian Angell, Ron Smith and Nigel Taylor have completed instructors' courses.

After many years with us John Whitworth is moving north. He will be missed by us all and we wish him the best of luck.
N.J.T.

HUMBER (RAF Scampton)
Steve Skidmore, Steve Ashton and Mick Hill have gone solo, Steve Skidmore flying both Bronze legs in the K-8 while Steve Ashton flew his first Bronze leg on his third solo.

A mini expedition to Portmoak resulted in a Gold height for Dave Ruttle and 5hrs for Ady Gipson (stationed in Germany) while John Dobson flew 500km at Roanne.

We welcome John Morris from Cyprus and say farewell to Chris Gilbert and thank him for all his hard work.
K.M.G.

KENT (Challock)
After a very frustrating Inter-Club League season weatherwise we led our area but only managed 5th place in the final.

Doug Berry and Mike Driver, ably assisted by our resident tug pilot and winch driver, have completed an interesting season of weekly courses, enabling members to make use of facilities midweek.

We have had expeditions to Aboyne, Husbands Bosworth, Lasham, Sutton Bank and Talgarth and we thank these clubs for their hospitality.

Our annual dinner-dance will be held in our clubhouse with catering by Jean and her staff.
A.R.V.

KESTREL (RAF Odiham)
Although it started with bad weather, we have finished the season with many achievements. Congratulations to Geoff Austin, Chris Wick and Andy Pettifer (Silver badges) and to Trevor Brown and Andy Carnegie (Bronze badges).

Many thanks to Jane and Steve Nash for their splendid efforts in organising a successful Inter-Club League final.

During the Farnborough Airshow we abandoned our airfield for Sandhill Farm. Our thanks to Swindon members for the loan of their site and an enjoyable time.
J.N.

NENE VALLEY (RAF Upwood)
Dan Schweir, Don Bellau, Fergus Pinkerton and Hamish Rogers have gone solo. Our thanks to Winterton, Rogers and helpers who built the Astir trailer. We are fortunate to be able to use part of the site hangar for glider storage.

Two of our military members, our chairman, Tim Schartung, and Geoff Cross, an outstanding soaring pilot, have left us and will be much missed.
T.H.C.

NEWARK & NOTTS (Winthorpe)
Our open weekend was a fantastic success with fine sunny weather. We achieved 170 trial instruction flights and the car boot sale was popular. Our thanks to all who took part.

Congratulations to Dave Parker on completing his Silver badge; Roger Starling on part 1 of the UK Cross-Country Diploma and to 16 year-old Robert Moorhouse on converting to the K-8.
N.B. In the last issue we said the syndicate T-21 is self-launching. This should have been self-sustaining. Apologies to the syndicate.
N.A.C.

NEWCASTLE & TEESSIDE (Carlton in Cleveland)
Congratulations to George Murphey and Keith Godwin in going solo and commiserations to Don Smith who failed once again attempting Silver distance in his Swallow.



The syndicate self-sustaining T-21 based at Newark & Notts.

A fairly succeessful course run by Alan Spellman, CFI, in August had three good days out of five. There are tentative inquiries about moving to another site. The summer has seen some good ridge soaring.
J.S.

NORFOLK (Tibenham)
We have had a busy and successful season with nine week long courses, two on motor gliders when everyone gained their MGPPLs. Benign weather, the dedication of instructors and tug pilots, notably Jim Carter, resulted in high glider utilisation, pupil satisfaction and a number of solos. Clemeas Lorenz (Germany) and Mario Pahkalo (Finland) stayed five weeks, gaining Bronze badges.

We had 25 flying evening sessions, each attracting 15 to 20 visitors. Our seven day week operation with the caravan park and improved facilities has encouraged more visitors including parties from Blackpool & Fylde GC. We are rapidly becoming a place for summer holidays.

Though good for training, the season didn't favour soaring although Peter Foster (IS) gained his Silver badge in one flight and John Edwards completed his Silver at Sutton Bank with 5hrs in his Grunau Baby during the Vintage Rally.
G.H.H.

OUSE & HAMBLETONS (Rufforth Airfield)
It may have been the wettest and windiest summer but we still made solid progress with a steady increase in membership and a satisfying crop of new solo pilots. Our mid-week courses have been very popular and extended into the autumn to meet the demand.

We have a splendid glider workshop, store and parachute room thanks to the efforts of a band of enthusiasts led by Alan Park, our chairman. The Ouse News magazine is thriving and copies are available to swap with other club newsletters.

We are planning a Hallowe'en party, Bonfire night disco and annual dinner-dance and particularly looking forward to the promised arrival of Father Christmas in the T-21 he uses on peak delivery periods.
C.R.

OXFORD (Weston-on-the-Green)
Our congratulations to Phil Hawkins (Std Cirrus) on winning the Enstone Regionals' Sport Class and to Gordon Craig for finishing well up the field.

Donal Meehan and David Payne, our youngest member, went solo, David soon after his 16th birthday. Jack Miller achieved his 50km and Graham Daniels (Pirat) completed his Silver badge with a 96km/h distance.

The addition of heating and a tarmac floor to our hangar/clubroom complex is imminent.
C.S.O.

PEGASUS (RAF Gütersloh)
It has been a busy year. At the annual expedition to Sisteron, France, in April, organised by CFI Bob Bickers, we flew over 650hrs and 7000 cross-country kilometres.

As the result of an accident to the SF-27 on the way to Sisteron, Alan Harris and Robin Willis-Flemming have bought a SB-5. Nick Garlands now has a K-6E which he has flown more than 100hrs and 1500km including three flights longer than 5hrs at Sisteron and 300km from Kufstein.

Mark Critchlow completed his Gold badge and claimed his second Diamond with a 300km that took over 8hrs to complete! Nine have gone solo with Matt Golling and Barry Murkin progressing to Bronze badges. Brian Rawlings and Roger Davies have flown 50kms and Anne McLean has her Bronze legs and Silver height.

Paul Gray has gone to St Athan, Bob Bickers, who handed over as CFI to Mark Critchlow, to Cyprus and Hymie Stevens and Pete Harris have arrived, Pete re-soloing.
S.E.

PORTSMOUTH NAVAL (Lee-on-Solent)
The search goes on for a replacement for our two-seater fleet. Our late summer course was an outstanding success with over 700 aerotows and 200 winch launches in ten days. Most of the 36 course members went solo.

A highlight was CFI Phil Moore's birthday with a flight in a Spitfire and a totally unexpected party arranged weeks before. The number attending attested to his popularity and we wish him many happy returns.
H.C.

RAE (RAF Farnborough)
Congratulations to Nick Sanders for winning the Inter-Services Regionals' Club Class; to Fergus Buchanan (Silver badge) although dog teeth marks on his barograph trace did cause temporary alarm; Alan Hebdon (going solo); Raphael Fisher (Bronze badge) and Duncan Price (two Silver legs).

The expedition to the Long Mynd organised by Dave Pearson produced some excellent flying and bungy launches, Dave and Davy Leuchars getting their 5hrs. Our thanks to Lasham Gliding Society for their hospitality during the Farnborough Airshow.
M.T.D.

SCOTTISH GLIDING UNION (Portmoak)
The visitor season is in full swing and the office is running out of claim forms after one particularly good week for durations and Gold and Diamond heights. Flying, visitors and trial lessons are up on last year although course and club membership was a little depressed.

The task weekends and club ladder have encouraged cross-countries, the task season finishing with five task days and 19 competitors. John Galloway/Colin McAlpine (Nimbus) won, closely followed by Brian Scougal (K-6E) who is leading the club ladder. Our thanks to Brian for his hard work as tug pilot for the summer; to John Macfarlane as course instructor and to Val and George Peddie for their helpful presence for much of the summer.

Congratulations to Kevin Dillon and Alex Coll (going solo); to Jonathan Pryce, Geoff Bevan, Joe Giacopazzi and Mike Carruthers (Bronze badges); to Lawrence McPhillips (Silver badge) and to John Galloway on coming 4th in the Lasham Regionals.

We have reverted to Tuesday and weekend flying for the winter but visitors continue to be welcome. We plan to restart a seven-day operation for Easter but if there is a repetition of last February's magnificent wave we will try and arrange weekday launches.
M.J.R.

SHALBOURNE (Rivar Hill)
The wave expeditions in September to Sutton Bank and Portmoak were successful in Scotland, but the Yorkshire week was also enjoyable.

We have had an increase in gliders. Particularly worthy of mention is the Cirrus Allan Pettitt and Andy Brind have spent almost three years rebuilding, John Garrett's Grunau Baby has drawn a lot of attention and three K-8s make regular appearances.

Congratulations to Roger Madelin on becoming an assistant Cat instructor; Stan Oram for Gold height and duration and to Richard Dann, Val Pike, James Walters and Paul Nickson on gaining Bronze legs.
S.C.O.

SHROPSHIRE SOARING (Sleap)
In a record 12 months ending in June we flew 1260hrs, an average of more than 100 for each glider. Sleap manages to provide a wide variety of exciting flying conditions. Take for example three separate days during our annual two week camp.

On July 31 a sea breeze front pressing down from the North Wales coast both sides of the Clwyd hills was flown by many for a total of 43hrs. On August 1 an active cold front moved slowly south on a line from mid Wales through to Stafford, giving approx a 100km width of soarable weather. On August 5 an unusual wave situation with a 2000ft asl cloudbase and tops roughly 3500ft, enabled us to almost saturate North Wales with gliders as far west as Blaenau Ffestiniog and as far north as Abergele on the coast up to 80km from base. From all these sorties there was not one outlanding.
V.C.C.

SOUTHDOWN (Parham)
An exchange trip to a German club, Oerlinghausen, resulted in a very enjoyable week's flying.

Our club Vega has been replaced by a DG-300 collected from Germany by Dave Connoway. The tug boys (Angus, John, Bob and Roger) have converted our 150 Super Cub to a 180.

After a poor July course the later ones had far better weather. Our thanks to Maggie Buchanan and Maggie Clews for the excellent catering.

Congratulations to Graham Noble, Robin Scott, Neil Sawyers, Chris Hancock, Hugh Neve, Linda Collins, Chris Smith, Gay Blythe and Nigel Hancock (going solo); to Steve Way, Barry Rawlins, Andy Bushby, Bob Allen, Colin Robinson and Ted Nicholson (Bronze badges); Andy White and Derek Tagg (Silver heights and durations); Martin Roberts and Steve Way (durations); Barry Rawlins (Silver height) and to Peter Tratt (Silver badge). Also to Rod Walker for Gold height and Steve Turner and Jim Health for Diamond heights at Aboyne.
P.C.F.

SOUTH WALES (Usk)
The Rallye is due back this month after extensive repairs and will join the Pawnee which has given good service throughout the summer. Having two tugs will help us make the most of the shorter days.

A new duty pilot scheme has started after a lot of innovative thought by Ralph Stevens and the CFI. The objective is to reduce the number of duties for each qualified member to three days or less per year while increasing efficiency of ground ops. With enthusiastic support of the members we hope for an increased launch rate and an even spread of responsibilities.

We are looking forward to the arrival of a Std Cirrus, our first glass single-seater available for members.
L.R.B. & J.M.B.

STRATFORD ON AVON (Snitterfield Airfield)
The September pig roast achieved over £90 for the Warwick Lions and more than £50 for Snitterfield village hall fund with a similar amount for us. We had a marquee and jazz band and 17 trial instruction lessons were given to villagers to celebrate our first anniversary at this magnificent site.

Special congratulations to Edmund Thomas on winning an RAF flying scholarship with all flying costs paid for him to complete his PPL at 17-years-old. Chris Roberts, Barry Kerby and Joe Kaval have their PPLs.

Martin Greenwood and Graham Ariss have their Bronze badges but Mick Forbes can't claim Silver height because his barograph trace was contaminated by candle grease.

Trials will start soon on the retrieve winch built by Brian Howett.
H.G.W.

STRUBBY (Strubby Airfield)
This has been a better soaring season than previous ones. A big thank you to Dick Hannigan who led our team to 4th place at the Wolds GC's Two-seater Competition.

Congratulations to John Turney (Silver badge); Bob Snoshall, Nigel Bartle, Chris Collins (Bronze badges); Chris Firth and Jack Libel (going solo); Lisa Trevethick (Gold height at Aboyne) and Gordon West (Bronze leg).

Our thanks to Pete Harrison and Jack Libel for their efforts in extending the grass runway and to CFI Phil Becker, Mike Fairbairn and John Kitchen for repairing and improving our winches (1200ft in the Bocian off the short run is now commonplace).
C.C.

SURREY & HANTS (Lasham Airfield)
We are buying another Discus following the success of our first and the experience level for both machines will be lowered for early cross-countries.

We are working with Terry Joint to improve the early solo pilots lot. K-8s will be taken out of the ballot and pilots' requirements and available K-8s will be better organised by group leaders/CFI.

Congratulations on some good end of season 50kms to Geoff Caswell, "Suerve" Saunders (both Bicester) and Phil Hearson.
J.B.N.

SWINDON (Sandhill Farm, Shrivenham)
Our recent expedition to Portmoak saw little wave but congratulations to Phil Atley and "Ziggy" Sigsworth on their durations ridge soaring the Bishop hill.


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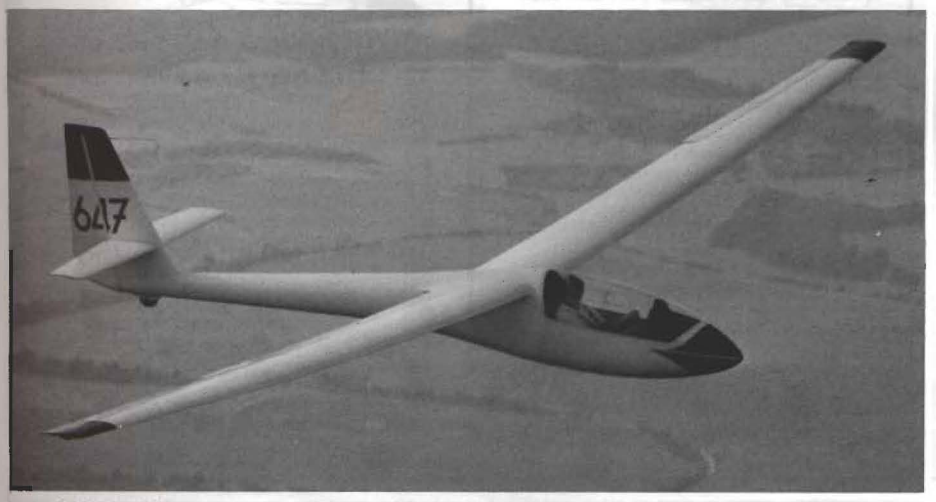
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Ray Godwin, chairman of Thruxton GC, photographed in the ASW-15 by K. Summers.

Despite the appalling summer few trial instruction evenings were called off. Thanks are due to many for their efforts but our ever present winch driver, Eric Brown, deserves a special mention.

It was great to see Doug Walker back in the air after a two year lay off due to illness.
J.P.A.

THRUXTON (Thruxton Airfield)
Despite the poor flying season we have had a number of achievements including a Bronze badge for Ian Grant and a Silver badge for Barry Lovett. Congratulations also to Hugh Carter on soloing on his 21st flight and within his 28 day club membership.

Expeditions to Talgarth have been organised. Our chairman, Ray Godwin, is retiring after a number of years and we appreciate all his hard work.
J.B.L.

TRENT VALLEY (Kirton-in-Lindsey)
Our members again took a K-13 to Wolds GC for their second Two-Seater Comp and finished a close 2nd to the K-21 from Camphill out of 12 entries. We had a great time and our pilots would highly recommend this competition and the host club's hospitality.

Dixie Dean achieved a height gain of 21 000ft at Portmoak. Congratulations also to Norbut Stumm on going solo and quickly gaining both Bronze legs, to Ted Crooks and Robin Parker on becoming assistant instructors and to Pete and Paul Holland and Pete Turner on gaining Gold heights at Aboyne. Pete Turner was also nominated best newcomer at the Northern Regionals.

Our Christmas party is on Saturday, December 10.
L.W.

TWO RIVERS (RAF Laarbruch)
Congratulations to Mike Sabine on going solo. Lynne Turner flew Silver distance to Borken in the K-8, narrowly beating Martin Pengelly in the DG-300, and Shaun Feeny also achieved a Silver distance while Eddie Vanhaverbeke gained Silver height.

Our mini Comp on August Bank Holiday saw 31 gliders from BFG and local German clubs in attendance, but only one competition day. Jim Brayford won the Club Class with an excellent flight, Keith Curtis came 2nd and Vince Mallon 3rd. Open Class results: 1st Ian Pettman, 2nd Wolfgang Bachus and 3rd Phil Jones.

We welcome Adrian Gipson but will sadly be losing our CFI, "Porki" Conyers and Susie. Best wishes to John Sullivan our new CFI. He will no doubt be ably assisted by our new instructors, Keith Curtis and Tim Boyle, and new officer in charge, Phil Jones.
I.P.

VECTIS (Sandown Airport, Isle of Wight)
After a disappointing August, September brought a surge of new members and a busy period for the two-seaters.

Julian Everest visited from Lasham in his DG-400 to buy some rock - new TP evidence perhaps?

John Kenny and Ken Taylor took the K-6E to Aboyne, John climbing, to more than 17000ft. Congratulations to Pete Tuppen on his assistant instructor rating and to Chris Bacon on gaining his A and B certificates in rapid succession.
J.F.P.

WELLAND (Middleton)
Keith Scott sent his son Jamie solo and later it was the turn of Al Booth, landlord of the Red Lion, our "clubhouse". Congratulations also to Gordon Scally (Bronze badge) and Kay Gordon (Bronze leg).

Barry Chadwick flew a 317km triangle from Husbands Bosworth for Gold distance and Diamond goal but forgot to switch on his barograph. Hard luck Barry.
R.H.S.

WYVERN RAF (Upavon)
Congratulations to Charlie Tebbs (Kestrel 19) and Bob Preston (ASK-23) who gained their 300kms on the practice day of the Junior Nationals. Dawn Bradley and Stewart Brooks also took part in this competition.

Alan Millson came 2nd and Ken Moules 4th in the Inter-Services Regionals' Sport Class. Our thanks to Bannerdown GC for hosting us for two weekends during Army exercises on Salisbury Plain - the Discus conversions were appreciated! Well done to Mike Pugh on gaining his Bronze badge.
D.B.

YORKSHIRE (Sutton Bank)
It was our pleasure to host the Vintage GC's rally in August. To show our recognition of Slingsby's we have decided to have an annual Slingsby week starting from next August. All gliders, whether Slingsby built or not, will be welcome.

Evening visiting this summer has been very successful, patronised particularly by Yorkshire bank employees. Our thanks to everyone who helped.

Congratulations to Richard Smith (Silver distance) and Derek Taylor (AEI rating).
C.L.

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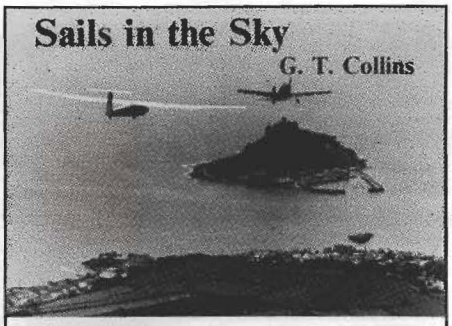
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AVIATION EXHIBITION

The 7th AERO International Trade Exhibition for sport and general aviation will be from April 5-9 in Friedrichshafen, W. Germany.

Correction: *In Chris Chapman's article "Variometer Systems" in the last issue, p224, the line "My plastic bottle only needed a 70°C change in the ambient air temperature to show this error..." should have read "a 7°C change".*

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